2017

Progroup AG
Annual Report
The Power of Innovation

pro group

The Power of Innovation

LETTER TO INVESTORS

Dear investors and business partners,

we are a leading European producer of containerboard and corrugated board, focusing on processing standardized small batch series for small- and medium-sized customers in a broad range of end-markets. With a total of approximately 1,100 employees and twelve production sites across six countries, we are headquartered in Landau, Germany.

We are pleased to share with you our annual report for the financial year 2017, as it was another successful year for us with a very strong performance. During 2017, we enjoyed increasingly favorable market conditions. Prices for both corrugated board and containerboard saw a steady upward development, while prices for recycled paper experienced some volatility throughout the year with an anticipated decline towards the end of the financial year. On average, prices for both corrugated board and containerboard were above the previous year's levels. By passing on price developments to customers, price increases for our main products had a positive effect on our sales and earnings performance in 2017. In addition, supported by our new production site PW10 in Trzcinica, Poland, providing additional volumes, sales continued on a strong growth path, increasing by 9.7% in 2017. Sales volume of our main growth driver corrugated board grew strongly by 8.7% throughout the financial year 2017, continuing a significant increase in growth compared to the 11.1% increase in sales volume 2016. For the first time in our company's history, we surpassed the 1-million ton mark in sales volume of corrugated board in 2017. Following this development we already accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell (including swap agreements with other containerboard suppliers, integration amounted to approximately 87% in 2017). In total, sales volume of containerboard declined by 2.3% in 2017, mainly attributable to program-related lowered capacity.

Consolidated sales increased by 9.7%, reaching €804.3 mn in 2017, compared to €733.2 mn in the previous financial year. The sales increase was primarily based on the higher sales volume of corrugated board, partially due to the start of production of PW10, as well as higher prices for corrugated board and for containerboard.

In the financial year of 2017, EBITDA grew by 16.6% to €180.4 mn from €154.7 mn in 2016. The strong performance is driven by an increased sales volume of corrugated board as well as effective price increases throughout the financial year. The EBITDA margin reached 22.4% in 2017, remaining well above the three-year average. Due to our very strong EBITDA performance throughout the year, consolidated net income continued on a sound growth path, reaching €72.4 mn in 2017 after an increase of 17.9% compared to €61.4 mn in 2016.

Free cash flow declined to €75 mn throughout the financial year 2017, compared to €129.4 mn in 2016. The decline is mainly attributable to an increase in net working capital as a result of increasing business activities and higher sales prices for our corrugated board products at year-end 2017, a deliberate build-up of our containerboard inventories ahead of a planned extended maintenance shutdown of our paper machine PM1 as well as higher cash outflows for investments in our new Prowell projects under construction.

Our net financial debt remained broadly stable at €422.5 mn as of December 31, 2017, after €421.4 mn as of December 31, 2016. As a result of our strong EBITDA in 2017, leverage further decreased from 2.5 to 2.3 at the end of 2017. This marks an all-time low since the first issuance of capital markets bonds in April 2015.

In March 2017, we successfully issued €150 mn in aggregate principal amount of new floating rate notes due 2024 and used a portion of the proceeds to redeem the remaining €75 mn in aggregate principle amount of our floating rate notes due 2022. In December 2017, we further entered into amendment and restatement agreements relating to our super senior revolving credit facility and our senior secured PLN facilities. In addition to various technical amendments and improvements, pursuant to the terms of these amendment and restatement agreements, the covenant schedule of each of the super senior revolving

credit facility and the senior secured PLN facilities will be amended and restated so that the relevant restrictive covenants will more closely track those contained in the conditions of issue of our new floating rate notes due 2024. Furthermore, the super senior revolving credit facility will generally have significantly improved terms and allow us greater flexibility, including through the option to increase the total commitments under the super senior revolving credit facility from currently €50 mn to up to €80 mn. Concurrently with the entry into the amendment and restatement agreements, we further entered into a €38.5 mn senior secured EUR facility with IKB Deutsche Industriebank AG and a £70 mn senior secured GBP facility with Goldman Sachs Bank USA. The effectiveness of the amendment and restatement agreements and the utilization of the new senior secured EUR facility and the new senior secured GBP facility are subject to certain conditions precedent.

As the strong operational performance throughout the financial year 2017 has proven the success of our strategy, offering best-in-class corrugated board products and services, we plan to continue our well-established greenfield strategy in 2018 and beyond. Beside the two upcoming newest corrugated board production sites in Italy (PW11) and the United Kingdom (PW12), we plan to establish up to four further corrugated board production sites in Central Europe between 2019 and 2021. This is a strategic move intended to maintain and further strengthen our position as a leading corrugated board producer in Europe in the long term and to allow us to retain our cost leadership and to meet expected market growth and customer requirements. These requirements are geared towards supply certainty and product quality.

Meanwhile, both our newest sites are well within schedule, with PW11 having commenced production in early March 2018 and PW12 scheduled to commence production by the end of the third quarter of 2018, leading to a total capacity of Prowell amounting to approximately 3,000 million m^2/year. Including the four projects planned for 2019–2021 our corrugated board capacity is expected grow to approximately 4,200 million m^2/year.

In addition, we began to actively pursue the realization of a potential further paper machine project (PM3) in Germany, providing an additional annual containerboard capacity in a total amount of approximately 750,000 tons. We currently expect production to commence in 2021. This move is aimed at further expanding our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner as well as in sufficient quantities. The completion of PM3 will result in an increase of the total annual containerboard capacity of Progroup from currently approximately 1,100,000 tons to approximately 1,850,000 tons.

Yours sincerely,

Jürgen Heindl | Dr. Volker Metz | Maximilian Heindl | Philipp Kosloh

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FORWARD-LOOKING STATEMENTS

This annual report includes forward-looking statements within the meaning of the securities laws of certain applicable jurisdictions. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this annual report, including, without limitation, those regarding our future financial position and results of operations, our strategy, plans, objectives, goals and targets, future developments in the markets in which we participate or are seeking to participate or anticipated regulatory changes in the markets in which we operate or intend to operate. In some cases, you can identify forward-looking statements by terminology such as “aim”, “anticipate”, “believe”, “continue”, “could”, “estimate”, “expect”, “forecast”, “guidance”, “intend”, “may”, “ongoing”, “plan”, “potential”, “predict”, “projected”, “propose”, “seek”, “should”, “targets” or “will” or the negative of such terms or other variation or comparable terminology.

By their nature, forward-looking statements involve known and unknown risks, uncertainties and other factors because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and are based on numerous assumptions and that our actual results of operations, including our financial condition and liquidity and the development of the industry in which we operate, may differ materially from (and be more negative than) those made in, or suggested by, the forward-looking statements contained in this annual report. In addition, even if our results of operations, including our financial condition and liquidity and the development of the industry in which we operate, are consistent with the forward-looking statements contained in this annual report, those results or developments may not be indicative of results or developments in subsequent periods. Important risks, uncertainties and other factors that could cause these differences include, but are not limited to:

- the level of economic growth and activity and fluctuations in the demand for our products;
- the cyclical nature of the containerboard and corrugated board industry and industry-wide production capacity;
- operational disruptions at our facilities;
- risks associated with our expansion and other investment projects;
- pricing pressure, consolidation of our customers, product substitution and competition in the markets in which we operate;
- fluctuations in the costs of our raw materials and other input costs and our ability to pass on increases to our customers;
- our ability to secure a reliable supply of raw materials, including recycled paper;
- the availability of, and increases in the costs of, transportation;
- increases in energy costs and loss of financial privileges in this respect;
- failure to successfully continue our Continuous Improvement Program and to further improve our operational efficiency and asset utilization and to successfully implement our business strategy;
- adverse effects arising from costs and difficulties of acquiring and integrating complementary businesses;
- our ability to comply with numerous environmental, health and safety laws and regulations as well as changes to such laws and regulations;
- currency exchange rate fluctuations;
- insufficient insurance coverage;
- loss of key customers or key personnel;
- risks arising from uncertainties regarding the European Monetary Union;
- IT and communication system failure or data loss;
- tax risks attributable to previous tax assessment periods and risks associated with restrictions on the deduction of interest expense or forfeiture of interest carry forwards under German tax laws;
- our substantial leverage and debt service obligations;
- limited operating flexibility due to financial and restrictive covenants in our debt agreements;

- risks of a default under our debt agreements, which could result in an acceleration of repayment;
- risks associated with our capital structure, the Senior Secured Notes, the Guarantees and our other indebtedness;
- force majeure and other unforeseeable events; and
- other factors discussed in "*Risk Factors*".

The risks described in the "*Risk Factors*" section of this annual report are not exhaustive. Other sections of this annual report describe additional factors that could adversely affect our business, financial condition and results of operations. Moreover, we operate in a highly competitive industry. New risks may emerge from time to time, and it is not possible for us to predict all such risks; nor can we assess the impact of all such risks on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

We urge you to read carefully the sections of this annual report entitled "*Risk Factors*", "*Management's Discussion and Analysis of Financial Condition and Results of Operations*", "*Industry and Competition*" and "*Business*" for a more complete discussion of the factors that could affect our future performance and the markets in which we operate. In light of these risks, uncertainties and assumptions, the forward-looking statements described in this annual report may not be accurate or occur at all.

Accordingly, investors should not place undue reliance on these forward-looking statements, which speak only as of the date on which the statements were made (and in any case no later than the date of this annual report). In addition, from time to time, we and our representatives, acting in respect of information provided by us, have made or may make forward-looking statements orally or in writing. These forward-looking statements may be included in, but are not limited to, press releases (including on our website), reports to our security holders and other communications. Although we believe that the expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct.

We undertake no obligation, and do not intend, to update or revise any forward-looking statements or risk factors, whether as a result of new information, future events or developments or otherwise. All subsequent written and oral forward-looking statements attributable to us or to persons acting on our behalf are expressly qualified in their entirety by the cautionary statements referred to above and contained elsewhere in this annual report.

CERTAIN DEFINITIONS

Unless otherwise specified or the context requires otherwise in this annual report (and except as otherwise defined "*Description of Certain Financing Arrangements*" for purposes of that section only), references to:

- "**2015 Refinancing**" are to the 2015 Refinancing, as defined under "*Management's Discussion and Analysis of Financial Condition and Results of Operations—The 2015 Refinancing*";
- "**we**", "**us**", "**our**" and the "**Group**" are to Progroup AG together with its consolidated subsidiaries;
- "**Cash Management Liabilities**" have the meaning ascribed to them under "*Description of Certain Financing Arrangements—Amended and Restated Intercreditor Agreement*";
- "**CHP**" are to the combined heat and power plant adjacent to our paper mill in Eisenhüttenstadt, Germany;
- "**CHP Acquisition**" are to our acquisition from EnBW and certain of its subsidiaries of Propower GmbH (formerly: EnBW Propower GmbH), the CHP and certain related assets effective as of midnight on December 31, 2015;
- "**Company**" are to Progroup AG, a stock corporation (*Aktiengesellschaft*) incorporated under the laws of Germany and the issuer of the Senior Secured Notes;
- "**Continuous Improvement Program**" are to the Continuous Improvement Program described under "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results of Operations—Continuous Improvement Program*";
- "**EnBW**" are to EnBW Energie Baden-Württemberg AG;
- "**Executive Board**" are to the executive board of Progroup AG;
- "**Senior Secured Notes**" are to the Company's €345,000,000 aggregate principal amount outstanding of its 5.125% Senior Secured Fixed Rate Notes due 2022 (the "**Senior Secured Fixed Rate Notes**") and the Company's €150,000,000 aggregate principal amount outstanding of its Senior Secured Floating Rate Notes due 2024 (the "**Senior Secured Floating Rate Notes**") and the terms of which are described in more detail under "*Description of Certain Financing Arrangements—Senior Secured Notes*";
- "**Existing Senior Secured Facilities**" are to the Senior Secured EUR Facility, the Senior Secured GBP Facility and the Senior Secured PLN Facilities;
- "**German GAAP**" are to generally accepted accounting principles (*Grundsätze ordnungsmäßiger Buchführung*) in the Federal Republic of Germany as in effect from time to time;
- "**Hedging Obligations**" are to certain hedging obligations which will be secured by the Collateral pursuant to the terms of the Intercreditor Agreement;
- "**Holders' Representative**" are to Deloitte GmbH Wirtschaftsprüfungsgesellschaft in its separate capacities as the common representative (*gemeinsamer Vertreter*) of the Holders of the Senior Secured Notes;
- "**IFRS**" are to International Financial Reporting Standards as adopted by the European Union;
- "**Intercreditor Agreement**" are to the intercreditor agreement entered into on April 29, 2015 among, *inter alios*, the Company and any other entity which has acceded or accedes to the intercreditor agreement as a debtor, the Security Agent, the lenders under the Super Senior Revolving Credit Facility, the agent under the Super Senior Revolving Credit Facility and the Holders' Representative, as confirmed and/or amended from time to time which is described in more detail under "*Description of Certain Financing Arrangements—Amended and Restated Intercreditor Agreement*";
- "**JH-Holding**" are to JH-Holding GmbH, a limited liability company *(Gesellschaft mit beschränkter Haftung*) organized under the laws of Germany, the direct parent company of the Company and our controlling shareholder;
- "**New Notes**" are to the €450,000,000 aggregate principal amount of senior secured notes due 2026, which the Company proposes to offer as announced by it on the date of this annual report;
- "**PIK Toggle Notes**" are to the remaining €81,061,544 outstanding aggregate principal amount of 8.25%/9.00% PIK Toggle Notes due 2022 of JH-Holding Finance SA, which are fully and unconditionally guaranteed by JH-Holding;

- "**Priority Hedging Obligations**" are to certain hedging obligations which (subject to the respective designation to be made pursuant to the terms of the Intercreditor Agreement) will, together with the Super Senior Revolving Credit Facility and Cash Management Liabilities, be secured by the Collateral on a super-priority basis pursuant to the terms of the Intercreditor Agreement;
- "**Profund**" are to our activities related to the support, from time to time, of Prowell customers in obtaining funding for their own expansion projects;
- "**Prologistik**" are to our own logistics operations, including a fleet of trucks we operate primarily to service the business operations of Propapier and Prowell;
- "**Propapier**" are to our containerboard production activities at our two paper mills in Burg (PM1) and Eisenhüttenstadt (PM2) (both located in Germany), including the related energy production of Propower at the CHP adjacent to our paper mill in Eisenhüttenstadt;
- "**Propower**" are to our energy production at the CHP in Eisenhüttenstadt (Germany);
- "**Proservice**" are to marketing, communication and IT services in support of Propapier and Prowell;
- "**Prowell**" are to our corrugated board production at our ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom;
- "**Refinancing**" are to the Refinancing, as defined under „*Overview—The Refinancing and Certain Related Transactions*";
- "**Security Agent**" are to Wilmington Trust (London) Limited, in its capacity as security agent for the Senior Secured Notes;
- "**Senior Secured EUR Facility**" are to the EUR 38,500,000 senior secured EUR facility agreement dated December 21, 2017, entered into among Progroup AG, as company and borrower guarantor, Prowell GmbH and the other existing Guarantors, as original guarantors and IKB Deutsche Industriebank AG, as original lender and agent, and as amended from time to time;
- "**Senior Secured GBP Facility**" are to the GBP 70,000,000 senior secured GBP facility agreement dated December 21, 2017, entered into among Progroup AG, as company and original guarantor, Prowell Ltd., as borrower and original guarantor, the other existing Guarantors, as original guarantors, Goldman Sachs Bank USA, as original lender, Goldman Sachs Lending Partners LLC, as agent, and Wilmington Trust (London) Limited, as security agent, and as amended from time to time;
- "**Senior Secured PLN Facilities**" are to (i) the PLN 107,000,000 senior secured PLN facility agreement dated December 1, 2015 (the "**2015 Senior Secured PLN Facility**") and (ii) the PLN 107,000,000 senior secured PLN facility agreement dated May 31, 2016 (the "**2016 Senior Secured PLN Facility**"), in each case (i) entered into among Progroup AG, as company and original guarantor, Prowell sp. z o.o, as borrower and original guarantor, the other existing Guarantors, as original guarantors, Commerzbank Aktiengesellschaft as mandated lead arranger, original lender and agent, and Wilmington Trust (London) Limited, as security agent and (ii) in each case as amended from time to time;
- "**Super Senior Revolving Credit Facility**" are to our super senior revolving credit facility as defined in "*Description of Certain Financing Arrangements—Amended and Restated Super Senior Revolving Credit Facility*";
- "**Supervisory Board**" are to the supervisory board of Progroup AG;
- "**United Kingdom**" or "**UK**" are to the United Kingdom of Great Britain and Northern Ireland;
- "**United States**" or "**U.S.**" are to the United States of America; and
- "**U.S. Securities Act**" are to the U.S. Securities Act of 1933, as amended.

PRESENTATION OF FINANCIAL INFORMATION

General

In this annual report, the term "financial statements" refers to the audited consolidated financial statements and the notes thereto of the Company and its consolidated subsidiaries as of and for the fiscal years ended December 31, 2015, 2016 and 2017. The consolidated financial statements as of and for the fiscal years ended December 31, 2017, along with the audit report of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) with respect to the consolidated financial statements as of and for the fiscal years ended December 31, 2017 are included in this annual report beginning on page F-1.

Our financial statements included in this annual report have been prepared in accordance with German GAAP, which differs in certain significant respects from IFRS. For a discussion of significant differences between German GAAP and IFRS, see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Summary of Significant Differences between German GAAP and IFRS*".

The financial information included in this annual report is not intended to comply with the reporting requirements of the SEC.

Certain numerical figures set out in this annual report, including financial data and operational volumes presented in million or thousand and percentages describing market shares, have been subject to rounding adjustments and, as a result, the totals of the data in this annual report may vary slightly from the actual arithmetic totals of such information. The financial information and financial statements included in this annual report are presented in euro. Amounts presented in euro per ton are not part of the financial statements but are taken from the management reporting of the Group.

Non-GAAP Financial Measures

In this annual report, we present certain non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data that are not required by, or presented in accordance with, German GAAP. Our management believes that the presentation of these non-GAAP measures is helpful to investors because these and other similar measures are widely used by certain investors, security analysts and other interested parties as supplemental measures of performance and liquidity. However, you should not construe these non-GAAP measures as an alternative to net income determined in accordance with German GAAP or to cash flows from operating activities, investing activities or financing activities. In addition, the non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data presented by us may not be comparable to similarly titled measures used by other companies.

INDUSTRY AND MARKET DATA

We operate in an industry for which it is difficult to obtain precise industry and market information. Market data and certain economic and industry data and forecasts used, and statements regarding our position in the industry made, in this annual report are based upon market research, government and other publicly available information, reports prepared by independent industry consultants and independent industry publications. These include information published by RISI, Inc. ("**RISI**") and Vision Hunters Ltd. Oy ("**Vision Hunters**"). The information in this annual report that has been sourced from third parties has been accurately reproduced and, as far as we are aware and able to ascertain from the information published by such third parties, no facts have been omitted that would render the reproduced information inaccurate or misleading. While we believe the statements included in such third-party publications to be reliable, they have not been independently verified, and we do not make any representation or warranties as to the accuracy or completeness of such information set forth in this annual report. Additionally, industry publications and such reports generally state that the information contained therein has been obtained from sources believed to be reliable, but that the accuracy and completeness of such information is not guaranteed and in some instances state that they do not assume liability for such information. See also "*Risk Factors—Risks Related to Our Industry and Our Business—The information available to market analysts varies in its degree of comparability*". Some industry publications publish or provide projections or other forward looking statements that, by their very nature, involve inherent risks and uncertainties and past projections or forward looking statements have turned out to be inaccurate. See "*Forward-Looking Statements*". We can therefore assure you of the accuracy and completeness of such information as we have not independently verified such information.

In addition, certain information in this annual report regarding our industry and our market position is not based on published statistical data or information obtained from independent third parties. Such information and statements reflect our estimates based upon information obtained from trade and business organizations and associations and other contacts within the industry in which we compete, internal surveys and assumptions we deem reasonable, as well as information published by our competitors. To the extent that information in this annual report is identified as being our belief, that information is based on the following: (i) in respect of industry trends, our senior management's general business experience, as well as their experience in our industry and the markets in which we operate, and (ii) in respect of the performance of our operations, our internal analysis of our audited and unaudited financial and other information. As some of the foregoing information was compiled or provided by our management and is not publicly available, such information accordingly may not be considered to be as independent as that provided by other third-party sources.

CURRENCY PRESENTATION AND EXCHANGE RATE INFORMATION

In this annual report, all references to "**euro**", "**EUR**" or "**€**" are to the single currency of the participating member states of the European and Monetary Union of the Treaty Establishing the European Community, as amended from time to time, and all references to "**U.S. dollars**" and "**US$**" are to the lawful currency of the United States of America. All references to "**British pounds**", "**GBP**" or "**£**" are to the lawful currency of the United Kingdom, all references to "**CZK**" or "**Czech koruna**" are to the lawful currency of the Czech Republic and all references to "**PLN**" or "**Polish zloty**" are to the lawful currency of the Republic of Poland.

The following table sets forth, for the periods set forth below, the high, low, average and period end Bloomberg Composite Rate expressed as U.S. dollars per €1.00. The Bloomberg Composite Rate is a "best market" calculation, in which, at any point in time, the bid rate is equal to the highest bid rate of all contributing bank indications and the ask rate is set to the lowest ask rate offered by these banks. The Bloomberg Composite Rate is a mid-value rate between the applied highest bid rate and the lowest ask rate. The rates may differ from the actual rates used in the preparation of our financial statements and other financial information appearing in this annual report. We do not make any representation that the euro amounts referred to in this annual report have been, could have been or could, in the future, be converted into U.S. dollars at any particular rate, if at all.

The average rate for a year means the average of the Bloomberg Composite Rates on the last day of each month during a year. The average rate for a month, or for any shorter period, means the average of the daily Bloomberg Composite Rates during that month, or shorter period, as the case may be.

The Bloomberg Composite Rate of the euro on March 8, 2018 was US$1.2312 per €1.00.

	U.S. dollars per €1.00			
	Period end	**Average**	**High**	**Low**
Year				
2013	1.3743	1.3285	1.3804	1.2780
2014	1.2098	1.3284	1.3932	1.2098
2015	1.0856	1.1098	1.2002	1.0497
2016	1.0520	1.1070	1.1532	1.0389
2017	1.2005	1.1303	1.2036	1.0406
Month				
September 2017	1.1814	1.1906	1.2036	1.1745
October 2017	1.1646	1.1755	1.1859	1.1608
November 2017	1.1904	1.1744	1.1933	1.1587
December 2017	1.2005	1.1838	1.2005	1.1742
January 2018	1.2414	1.2201	1.2427	1.1937
February 2018	1.2509	1.2344	1.2509	1.2194
March 2018 (through March 8, 2018)	1.2312	1.2341	1.2411	1.2266

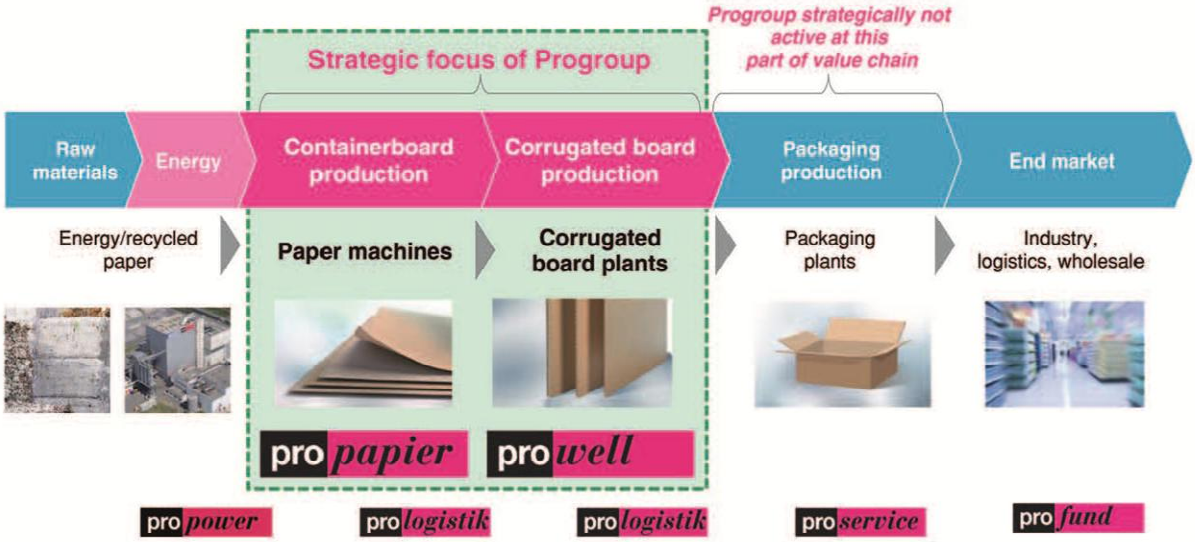
For information on the impact of fluctuations in exchange rates on our operations, see "*Risk Factors—Risks Related to Our Industry and Our Business—We are exposed to currency exchange rate fluctuations*".

OVERVIEW

The following overview is qualified in its entirety by, and should be read in conjunction with, the more detailed information and the financial statements appearing elsewhere in this annual report. You should read carefully the entire annual report to understand our business, , including the risks discussed under the caption "Risk Factors".

OUR COMPANY

We are a leading, family-owned producer and supplier of containerboard and corrugated board in Central Europe and are headquartered in Landau, Germany. According to Vision Hunters, we are the third largest producer of corrugated board in Europe (by production capacity) through our Prowell business ("**Prowell**") and the sixth largest producer of recycled containerboard in Europe (by production capacity) through our Propapier business ("**Propapier**"). We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned box manufacturing customers. In this core market segment, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.* the automated and integrated production of containerboard and corrugated board. Our customers serve various end markets, including industrial/manufacturing, consumer durables, processed foods, non-food manufactured consumer goods and fresh food. Unlike many fully integrated market players, we do not produce boxes and therefore do not compete with our box manufacturing customers but instead focus solely on the production of containerboard and corrugated board.

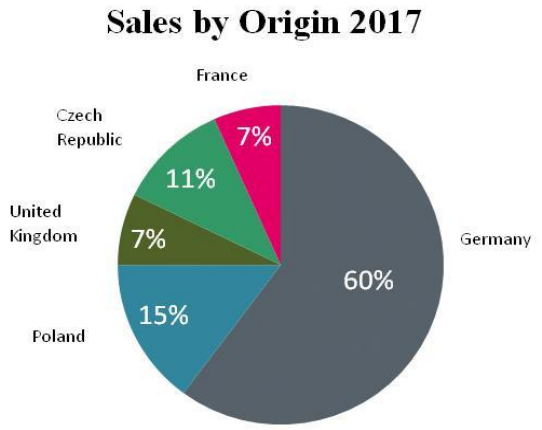


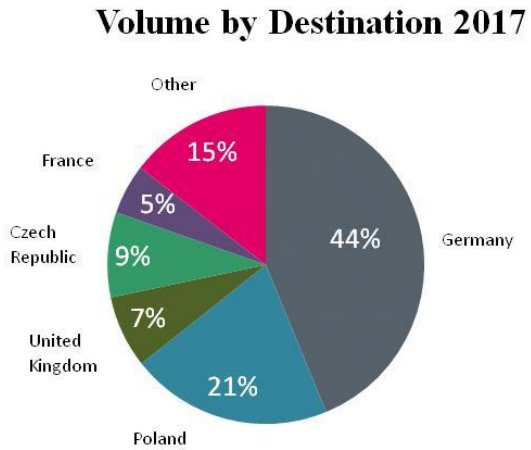
Through our large scale and highly flexible production, built up primarily via a greenfield approach, we are able to realize significant economies of scale. Since we commenced operations in 1992, we have carefully selected the locations of our production sites and have grown organically by pursuing primarily a greenfield strategy to create an optimal geographic set-up of our production sites across the markets in which we operate. As a result, we benefit from a well-invested asset base and production sites with high technological standards, resulting in a relatively low cost base compared to many of our competitors and relatively low requirements for additional capital expenditures in the short- to medium-term. Given the high technological standards of our production facilities, we believe we are well-positioned to benefit from major growth trends in our industry, such as (i) increasing demand for light-weight packaging, (ii) the increasing importance of small-size packaging due to the growing importance of e-commerce, and (iii) the general trend towards a more efficient and sustainable use of raw materials and energy, which can help reduce both costs and CO_2 emissions.

Our core business comprises Propapier and Prowell. The focus of Propapier's operations is highly flexible containerboard production using almost exclusively recycled paper, with high output volumes to increase cost efficiency and short delivery times. In 2015, 2016 and 2017, containerboard produced by Propapier accounted for most of the containerboard sourcing requirements of our corrugated board production within Prowell. We believe that a high degree of vertical integration and the ability of Prowell to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. In addition, our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options.

Propapier manufactures containerboard at our two paper mills in Germany, with an envisaged total annual production capacity of approximately 1,100,000 tons of containerboard. Our two paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, have complementary production layouts which allow us to produce brown containerboard with grammages between 60-230g/m^2 using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for Prowell's ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,250,000 tons of corrugated board. Our historic greenfield location strategy ensures close customer proximity and high production flexibility. As part of our historic greenfield location strategy and to secure a reliable supply of energy to our paper machine PM2 at clearly defined prices, we entered into framework and ancillary agreements with EnBW for the construction and operation of a combined heat and power plant (the "**CHP**") adjacent to our paper mill in Eisenhüttenstadt. Pursuant to these agreements, the CHP was owned by Propower GmbH, a former wholly-owned, indirect subsidiary of EnBW Energie Baden-Württemberg AG. Effective as of midnight on December 31, 2015, we acquired Propower GmbH, the CHP and certain related assets outright (the "**CHP Acquisition**"). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves ("**Propower**").

In 2017, we sold approximately 1,011,000 tons of corrugated board and approximately 242,000 tons of containerboard to external customers across Europe, resulting in external corrugated board and containerboard sales, respectively, of €663.9 million (82.6% of total sales) and €99.7 million (12.4% of total sales). Propapier's total sales in 2017 include €18.8 million (2.3% of total sales) in revenues from the sale of electricity and revenues from the incineration of refuse-derived fuel resulting from the integration of the CHP as well as €8.5 million (1.1% of total sales) in sales from passing purchased fuel costs to Sales and Solutions GmbH. Total external sales by Prowell and Propapier in 2017 (including sales other than corrugated board or containerboard sales, respectively) amounted to €664.5 million (82.6% of total sales) and €128.5 million (16.0% of total sales). Our total sales and EBITDA in 2017 amounted to €804.3 million and €180.4 million, respectively. Sales in Germany (origin), our core market, accounted for 60.2% of total sales and 44% of sales by volume in 2017.





Primarily to support our core business, Propapier and Prowell, we have established our own logistics operations, including a fleet of currently 59 trucks ("**Prologistik**"). Most of the remaining €11.3 million in sales (1.4% of total sales) in 2017 were generated by Prologistik. We also provide marketing, communication and IT services, again primarily to support Propapier and Prowell ("**Proservice**"). Proservice did not generate any external sales in 2017 and does not have any significant assets or liabilities, but provides value-add services to our customers.

Founded in 1991, we are indirectly majority-owned by Jürgen Heindl, our founder and chief executive officer.

OUR STRENGTHS

We believe we benefit from the following competitive strengths.

Differentiated business model with leading market positions in attractive market environment

Our founder, Jürgen Heindl, designed a business model differentiating us from our competitors. Through our strategic value chain positioning in containerboard and corrugated board production only, we do not compete with our targeted customers, who are primarily family-owned, small and medium-sized businesses. Our core customers focus on packaging solutions for the end-customer and typically do not have their own corrugated board production capability. Many of our competitors are fully integrated and focus on serving larger end-customers in large batch sizes, including global consumer corporates. Our differentiated business model allows us to serve a higher number of customers, process a higher number of orders and maintain higher production volumes per production site (up to 370 million square meters of corrugated board per annum), thereby generating economies of scale. We are solely focused on the production process as opposed to many of our competitors, who also focus on more complex and customer-specific packaging requirements for a smaller number of larger customers and, hence, only have an average production output of typically 70-80 million square meters per production site per annum.

In 26 years since our foundation, we have achieved leading market positions in the countries in which we operate. We are among the top three corrugated board producers in Europe (by production capacity) and our market share in our specific segment, the corrugated sheet market in Europe, is approximately 15% according to Vision Hunters. In our core market segment, namely corrugated board sheets, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters, and we hold considerably higher market shares in those markets compared to our position in the overall European containerboard and corrugated board market. Following the fast and successful ramp-up of our corrugated board production site (PW10) in Trzinica, Poland, we have also become a very significant player in the Polish market, and we further expect to become a significant player in the UK market, following the establishment and ramp-up of production at our proposed corrugated board production site (PW12) in Ellesmere Port, United Kingdom. In addition, the commencement of production at our corrugated board production site (PW11) in Drizzona, Italy in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons, marks our entry into the largest corrugated sheet board market in Europe. In containerboard production, we have a market share of approximately 4% by production capacity, according to Vision Hunters.

While we believe our differentiated business model, high reliability and quality of product supply, significant scale, internal sourcing and geographic coverage provide us with a competitive advantage in our core market segment, we also benefit from attractive market fundamentals of the overall industry.

The paper and packaging industry is experiencing overall growing demand from industrial economies in Central Europe, and we believe that Germany and Central Europe, our key markets, provide a positive economic outlook. From a product perspective, the increasing significance of light-weight paper and packaging solutions as well as small-size packaging and the increasingly online and mail order-driven retail sector is expected to further stimulate packaging growth. We believe our modern production facilities, particularly PM2, which is capable of producing light-weight paper grades economically on a commercial scale, position us well to benefit from these growth trends in the industry. Furthermore, production is driven by the strong increase in demand from emerging economies, where production and packaging standards are adapting to the standards of developed countries, from which we also benefit with our production in Poland and the Czech Republic

Uniquely designed, best-in-class and strategically located, low-cost production asset base built up via greenfield strategy

Since our foundation in 1991, we have carefully designed and selected our production operations and locations via a dedicated greenfield strategy to establish highly efficient, flexible and technologically advanced production facilities, which were ahead of the existing market standard at the time. We believe we are the fastest organically growing corrugated board producer in Europe and have developed a unique track record and expertise in successfully establishing new greenfield corrugated board production sites. This includes a dedicated and experienced in-house projects team tasked with identifying attractive market opportunities for profitable growth, completing the planning and construction phases of the relevant projects on time and on budget and managing fast and successful ramp-ups of production at the relevant sites.

Designing our production set-up primarily via a greenfield strategy allowed us to invest in the best available production specifications and optimize the alignment and compatibility of our paper machines, PM1 and PM2, with our corrugated board production machines. The current 2.5m, 2.8m and 3.3m trim widths of our various existing corrugated board plants can be very efficiently combined with the 5.8m trim width of PM1 (2 × 2.8m or 2.5m + 3.3m) and the 10.2m trim width of PM2 (4 × 2.5m or 3 × 3.3m), resulting in low volumes of cutting scrap and higher productivity.

Our corrugated board production sites have been purposefully located approximately 500 kilometers from each other. This footprint ensures close customer proximity with full regional coverage of our customers and limited overlap to limit the transportation distance in most circumstances to 250-300 kilometers. Our strategic footprint also allows us to achieve

high production flexibility and reliable just-in-time delivery with short lead times. Furthermore, we are able to serve our customers from different locations, thereby optimizing transportation costs and capacity utilizations on a plant-by-plant basis, which is coordinated centrally from our headquarters in Landau following a "one mill approach". We believe our location layout and organization give us a competitive advantage in terms of cost efficiency and customer orientation. On average, we serve approximately 50-80 customers per corrugated board production site and each of our production sites offers the entire range of customer services (e.g., 24 hour delivery and online ordering and tracking).

We believe that all of our plants (except for our existing corrugated board production site (PW8) in Ellesmere Port, United Kingdom) are equipped with state-of-the-art technology, which is the foundation of our low-cost and efficient production. We currently expect to close PW8 following commencement of production at our proposed new corrugated board "mega plant" (PW12) in Ellesmere Port. According to Vision Hunters, the asset quality of our paper machines is characterized as high and above comparable European containerboard and corrugated board producers. Performance metrics of PM1, such as capacity and technical age, are well above the industry average. PM2, which we believe to be among the world's most advanced paper machines for recycled super-light-weight paper and which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m^2, ranks best in class for all metrics and has set five new world records since its launch in 2010.

Unlike many of our competitors, who grew historically over many decades or had to integrate production infrastructures inorganically through acquisitions, we differentiate ourselves through our well-invested asset base and high-quality, complementary, modern and strictly aligned, high capacity production facilities placed purposefully in strategic locations. The completion of the CHP Acquisition on December 31, 2015 allowed us to further expand our asset base with a tailor-made power plant that was specifically designed to meet the steam requirements of our paper machine PM2.

Strong, diversified and long-standing customer base

We have long-standing relationships with many of our customers, some of which date back to the start of our operations in 1992. We have grown with our large German customers as they have expanded across Europe and have successfully entered into new relationships with key customers outside of Germany. We currently supply 350 to 400 different Prowell customers, with a strategic focus on family-owned, small and medium-sized companies. Our top five Prowell customers accounted for approximately 7%, 4%, 3%, 3% and 2%, respectively, of our total corrugated board sales, by tons, in 2017, while our top five external Propapier customers accounted for approximately 21%, 9%, 5%, 5% and 4%, respectively, of our total external containerboard sales, by tons, in 2017.

We believe that our ability to provide reliable delivery of high-quality, cost-effective and tailor-made products and being a family-owned business have enabled us to foster strong partnerships of mutual dependence with our mostly family-owned customers, operating as a fundamental part of their supply chains by improving inventory management, security of supply and customer service.

Our strong customer relationships are reinforced through a combination of our geographic reach, our manufacturing and logistics excellence, and the limited availability of alternative suppliers with the capacity and geographic proximity to provide a competitive offering. At some of our corrugated board production sites, certain long-standing customers have established their own box manufacturing plants in immediate proximity to our site, either on our own land or on land adjacent to our site (so-called "packaging park"). As a variation of this traditional packaging park model, we commenced production in October 2015 at our corrugated board production site (PW9) in Plössberg, Germany, which we established in immediate proximity to an existing packaging plant of our customer, Liebensteiner Kartonagenwerk, on land owned by our customer. As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant. Following the success of these two packaging park projects (PW9 and PW10), we also established our newest corrugated board production site (PW11) in Drizzona, Italy as a packaging park project in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l.

All versions of the packaging park model help us to further strengthen our relationships with key customers (or win significant new customers, as in the case of Imbal Carton S.r.l.) and benefit both us and the relevant customers. The high level of integration between our own corrugated board production and the box production of our customers also made possible through the packaging park model creates a number of efficiencies and largely eliminates freight and other logistics costs between Prowell and our packaging park customers. Our packaging park customers also typically purchase a very high percentage (up to 100%) of their corrugated board requirements for the relevant box plant from us, which means predictable, high volume orders and consistently high utilization levels for the relevant corrugated board production sites. Index pricing arrangements with our packaging park customers ensure a predictable pricing mechanism for all parties. It typically takes approximately two to three months for containerboard mills to pass on their raw material price increases to their customers, *i.e.* manufacturers of corrugated board. In turn, the manufacturers of corrugated board

generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for corrugated board manufacturers, including us, to pass these increases on to their customers.

Technology and innovation leader

There are general industry trends towards lighter and more functional packaging and towards a more efficient use of resources. The trend towards "light paper" (*i.e.*, containerboard) has been particularly strong in Germany and has been further strengthened by the increasingly online and mail order-driven retail sector, which is expected to further stimulate demand growth for light packaging solutions. We believe that we are particularly well-positioned to capitalize on these trends with our paper mill in Eisenhüttenstadt, Germany, which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m^2. As demand for super-light-weight containerboard (with a grammage below 90g/m^2) is increasing, we believe that PM2 gives us a significant advantage over many of our competitors, both in terms of efficiency and product quality. In addition, we continuously work to improve our product designs, optimize the utilization of our assets and explore new ways to further reduce our input costs. In particular, we are focused on further reducing the use of fibre (*i.e.*, recycled paper) in our products as well as the amount of energy required for our production processes and the shipment of our products, in order to both maintain a competitive cost position in our industry and to reduce emissions and waste.

We have invested significantly in the development of a "green" range of "next generation" products working in close cooperation with BHS Corrugated GmbH, one of our equipment suppliers, and a team of researchers at the University of Applied Sciences (*Hochschule für angewandte Wissenschaften*) in Regensburg, Germany. We market these products under our own brands next fibre®, next board® and next box®. All of these product innovations involve the use of super-light-weight containerboard produced by our paper machine PM2 as well as innovative flute designs of our corrugated board formats, intended to further reduce raw material input and thereby further reduce weight, input costs and CO_2 emissions.

Significant synergies through high degree of vertical integration

In 2017, containerboard produced by Propapier accounted for approximately 80-85% of the containerboard sourcing requirements, by volume, of our corrugated board production within Prowell. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Prowell have increased from approximately 66% (or 74%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Propapier in 2015 to approximately 76% (or 87%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Propapier in 2017. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018 and the expected completion of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom by the end of the third quarter of 2018, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. However, with the expected establishment of up to four further corrugated board production sites between 2019 and 2021, we expect to successively increase this net short position with regard to containerboard even further at least in the short-term to mid-term. As a result, we currently do not expect the volume of our external containerboard to significantly increase again unless and until we complete our proposed further paper machine project (PM3) For more details on our expansion projects and investment program, see also „Overview—*Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*" below. With an envisaged total annual containerboard capacity of approximately 1,100,000 tons, Propapier produced approximately 1,024,000 tons of containerboard in both 2017 and 2015. In 2017, approximately 776,000 tons were sold internally to Prowell (2015: 680,000 tons of internal containerboard sales), and a further approximately 108,000 tons were sold pursuant to swap agreements with other containerboard producers (2015: 78,000 tons of sales to swap partners), which allow us to reduce transportation costs, optimize our production program and swap internally produced containerboard for certain containerboard grades we do not produce in sufficient quantities, such as kraftliner. The remaining approximately 134,000 tons of containerboard we sold in 2017 were sold externally (2015: approximately 268,000 tons of external containerboard sales, excluding sales to swap partners). With a total annual corrugated board production capacity of approximately 1,250,000 tons (including (i) 110,000 tons of capacity of our corrugated board production site (PW10) in Trzcinica, Poland, which commenced production at the end of January 2017 and (ii) 100,000 tons of capacity of our newest corrugated board production site (PW11) in Drizzona, Italy, which commenced production in early March 2018) as of the date of this annual report (2015: total annual corrugated board production capacity of approximately 1,020,000 tons), Prowell produced approximately 1,011,000 tons of containerboard in 2017, compared to approximately 837,000 tons of corrugated board in 2015. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that

the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Propapier and Prowell over the last few years has also been allowing us to further optimize our internal logistics and supply chain.See also *„—Our Strategy—Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases*" below.

Strong track record of profitable growth

Following the 2015 Refinancing, we successfully completed a number of recent expansion and other investment projects, including the CHP Acquisition as well as the successful establishment of three new corrugated board production sites (PW9, PW10 and PW11), with the construction of our new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom progressing on schedule. In addition, we successfully implemented a series of initiatives in recent years as part of our Continuous Improvement Program to improve the effectiveness of our sales and marketing activities, optimize (*i.e.*, minimize) our variable costs and stabilize our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. The completion of the CHP Acquisition, in particular, constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs. We believe the CHP Acquisition resulted in an EBITDA contribution of approximately €38.6 million and net cash savings of approximately €40.8 million in 2017, compared to our former contracting arrangement with EnBW, which significantly exceeded our expectations at the time of the CHP Acquisition. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Result of Operations—The CHP Acquisition*".

As a result of these and other factors, we have managed to continue to significantly improve our profitability and cash position and moved the Group to a structurally enhanced level of profitability in recent years. In particular, we have managed to increase our EBITDA from €81.7 million in 2013 to €125.1 million in 2014, €152.9 million in 2015, €154.7 million in 2016 (including an EBITDA contribution of approximately €20.9 million from the CHP Acquisition) and €180.4 million in 2017 (including an EBITDA contribution of approximately €38.6 million from the CHP Acquisition). During the same period, our EBITDA margin (calculated by dividing EBITDA by sales) improved from 14.0% in 2013 to 22.4% in 2017. Combined with our controlled investment strategy, which should normally allow us to adapt the amount of our expansion capital expenditures in line with our projected mid-term cash requirement, we believe we are in a strong financial condition to weather and/or adapt to challenges that may face us or our industry as a whole.

Committed family shareholders and experienced management team for long-term stability

Our company was founded in 1991 by Jürgen Heindl, our chief executive officer, and continues to be controlled by him and his two sons, Maximilian Heindl and Vinzenz Heindl. We believe this family link and the strong personal and long-standing financial commitment of our owners ensures our focus on stability, long-term value generation and prudent investment strategies. Jürgen Heindl's expertise is supported by a strong and growing management team with extensive industry experience, including within our Group. Our management team has impressively demonstrated its abilities by creating one of Europe's leading containerboard and corrugated board players in 26 years while withstanding economic downturns and restructurings. In response to the increasing size and complexity of the Group and to free up management capacity to allow Jürgen Heindl to focus on the strategic development of the Group, we have successfully professionalized and expanded our senior management team, including our Executive Board. Dr. Volker Metz rejoined the Group as our chief financial officer in November 2016, after previously having served as our head of controlling between 2009 and January 2016. Similarly, after spending seven years with one of our largest international competitors, Philipp Kosloh rejoined the Group in November 2016 and was appointed a deputy member of our Executive Board, with a view to becoming our first chief operating officer. Mr. Kosloh had previously served in various capacities within the Group between 2001 and 2009. In addition, after gaining several years of relevant work and management experience in the paper industry outside the Group, Maximilian Heindl joined the Group in August 2016 as the manager in charge of production and technology at Propapier (PM1 and PM2) and with overall responsibility for Propower. From August 1, 2017, Maximilian Heindl took over further responsibility within the Group as a deputy member of the Executive Board. Maximilain Heindl's work and management experience outside the Group, his management roles at Propapier and Propower, his appointment to the Executive Board and gradual assumption of further responsibilities are all part of a deliberate, long-term succession plan for our founder and chief executive officer Jürgen Heindl with the goal of securing our future as a successful family-owned business into the next generation.

OUR STRATEGY

Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term "Two Twentyfive" strategy, as long as (i) we are confident we can achieve payback periods for our investments that are aligned with the maturity profile and relevant headroom under our financing arrangements, (ii) we maintain sufficient financial flexibility to weather and/or adapt to challenges that may face us or our industry as a whole, and (iii) any such investments would be consistent with our long-term target leverage. In addition to further capacity expansion, our "Two Twentyfive" strategy, among other things, also contemplates a gradual technological transition and generation change away from the use of corrugators with a trim width of 2.5m, which are installed and currently in use at some of our older corrugated board production sites, to the use of more modern corrugators with trim widths of 2.8m or 3.3m at most of our corrugated board production sites.

Following the successful completion of the ramp-up of production at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015, we had already accomplished one of our long-standing strategic goals in 2016 and were already operating within our target corridor with regard to the level of integration between Propapier and Prowell. However, in the short-term to mid-term, we still intend to continue to focus our investment activities on further expanding our corrugated board production capacity to be able to seize what we believe are numerous further market opportunities for profitable growth, similar to those that led to the successful establishment of our most recent production sites (PW9, PW10 and PW11) in Plössberg (Germany), Trzcinica (Poland) and Drizzona (Italy). In continuation of our organic growth strategy, we intend to primarily achieve further growth by pursuing further expansion opportunities via greenfield projects.

In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our newest corrugated board production site (PW11) in Drizzona, Italy, in early March 2018. As with our corrugated board production site (PW9) in Plössberg, Germany and our corrugated board production site (PW10) in Trzcinica, Poland, we established this newest site as a packaging park project in immediate proximity to the existing packaging plant of a customer, Italian packaging specialist Imbal Carton S.r.l., which will allow us to supply this new customer largely without freight and other logistics costs. We invested approximately €13 million into the establishment of this newest corrugated board production site. The commencement of production at our corrugated board production site (PW11) in Drizzona, Italy, with an annual corrugated board production capacity of approximately 100,000 tons, also marks our entry into the largest corrugated sheet board market in Europe. In addition, in October 2017, Prowell Ltd. broke ground and commenced construction of a new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom. This additional corrugated board production site, which is located a few kilometres from our existing corrugated board production site (PW8) in Ellesmere Port and which is currently scheduled to commence production toward the end of the third quarter of 2018, will operate with a 3.35m trim width and have an annual corrugated board production capacity of more than 200,000 tons. We believe that this new production site, with its large capacity and state-of-the-art equipment, will be one of the largest and most efficient corrugated sheet board plants globally and position us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins. We currently expect to invest a total of approximately €85 million in the establishment of the new site, including approximately €17 million in expenses we have already incurred in 2017. We established our existing corrugated board production site (PW8) at Ellesmere Port, which has an annual corrugated board production capacity of approximately 85,000 tons, in 2009 with a used corrugator with a 2.5m trim width, and we currently expect to close this existing corrugated board production site following commencement of production at the new site.

While we have historically pursued a pure greenfield growth strategy, including the three packaging park projects (PW9, PW10 and PW11) and our proposed new corrugated board production site (PW12) in the United Kingdom described above, we are also evaluating and will continue to evaluate opportunities to acquire attractive assets from competitors which would complement our existing network of production sites, advance our goal of further increasing our corrugated board production capacity and meet the other internal investment and financing criteria described above. In addition, in order to maintain and/or strengthen our relationships with certain large and long-standing customers or in response to opportunities to establish relationships with significant new customers, we will consider additional packaging park projects whereby we would establish corrugated board production sites at or in proximity to the packaging plants of the relevant customers.

With the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term

target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy and the completion of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. In the short-term to mid-term, we nevertheless intend to continue to focus our investment activities on further expanding our corrugated board production capacity, and we currently expect to establish up to four further corrugated board production sites in Central Europe between 2019 and 2021. As a result of these proposed additional corrugated board production sites, we expect our annual corrugated board production capacity to increase from approximately 3.0 billion square meters (including our corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom) to approximately 4.2 billion square meters.

Furthermore, in order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Prowell, we have also begun to actively pursue the realization of a potential further paper machine project (PM3), subject to the internal investment and financing criteria described above and taking into consideration market factors as well as the expected future containerboard sourcing requirements of Prowell. In particular, we have been evaluating several potential sites for the potential paper machine project (PM3) in Germany and are currently in advanced discussions with the land owner, the local municipality, local utilities and other stakeholders at one potential site. In addition, we have also commenced early-stage discussions with potential equipment suppliers for the potential paper machine project. If completed at all, we currently expect this potential further state-of-the-art paper machine (PM3) to have a total annual containerboard capacity of approximately 750,000 tons and to commence production in 2021. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Propapier from currently approximately 1,100,000 tons to approximately 1,850,000 tons. We currently expect that the proposed new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap and higher productivity. We expect to invest a total of approximately €375 million in the potential paper machine project over a several year period, with initial expenditures (e.g. for purchasing the land and certain preliminary work) as early as 2018 or 2019. We expect to fund any such investments with a combination of cash generated from our operating activities and additional borrowings.

Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases

We expect that the start of production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Prowell, so that we will become a net purchaser of containerboard in 2018. In addition, we currently expect to establish up to four further corrugated board production sites between 2019 and 2021. See also "*—Expansion Projects and Investment Program*". Unless and until we complete the proposed new paper machine project (PM3), this expected increase in our corrugated board production combined with a current supply shortage in the European containerboard market, will likely cause us to further increase the level of internal containerboard sales to Prowell (and thereby the level of integration between Propapier and Prowell) in 2018 and to increasingly rely on purchasing containerboard from third party suppliers. We believe that targeted external containerboard purchases that meet the specific sourcing requirements of Prowell will give us additional flexibility and provide us with opportunities to further optimize (i.e., minimize) our variable costs, for example, by allowing us to purchase containerboard that matches the specific grade and optimal trim-width required for our corrugated board production from time to time, from external suppliers located in close proximity to the relevant Prowell plants. We hope this will allow us to further reduce cutting scrap, further optimize logistics expenses and give us additional flexibility to optimize the utilization of our own paper machines (PM1 and PM2).

Maintain cost leadership through continuous efficiency and profitability improvements

In order to maintain profitability throughout the economic cycle, we have implemented a comprehensive profitability improvement program (the "**Continuous Improvement Program**") to ensure the long-term success of our Group. Our Continuous Improvement Program focuses on (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. Since 2012, our main focus in connection with our goal of achieving sales excellence has been on (i) growing our external sales in excess of the general growth in market volumes (and thereby increasing our market share), (ii) maximizing the impact of the introduction of our "next generation" products into the market and (iii) optimizing our sales portfolio. As part of our efforts to optimize our variable costs, we have focused on (i) reducing our consumption of raw materials, (ii) optimizing our energy

consumption and energy costs, especially at our paper mill in Eisenhüttenstadt (PM2), and (iii) reducing the purchase prices of our key production factors, such as recycled paper, starch and freight services. Overall, we have met or exceeded our targeted benefits through our Continuous Improvement Program. We intend to continue to implement our Continuous Improvement Program and identify and realize further improvement opportunities. See also "*—Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases*" above.

RECENT DEVELOPMENTS AND TRADING UPDATE

Start of production at our newest corrugated board production site (PW11) in Drizzona, Italy

Following the success of the two packaging park projects (PW9 and PW10) in Plössberg, Germany and in Trzcinica, Poland, we commenced production at our newest corrugated board production site (PW11) in Drizzona, Italy in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l. in early March 2018.

Market Update

In 2018, Central and Western European recycled containerboard producers again raised prices as follows: (i) by approximately £50 per ton in the United Kingdom effective as of mid-January 2018, (ii) by approximately €40 per ton in France and Poland effective as of February 2018, (iii) by approximately €30-40 per ton in Germany effective as of February 2018 and (iv) by approximately €20 per ton in Italy effective as of January or February 2018. If European corrugated board producers (including Prowell) are able to successfully pass the increase in containerboard prices through to their customers, this would have a further positive impact on margins. However, there can be no assurance that our strong operating performance will continue or that our EBITDA will not decline.

Trading Update

Based on management accounts, our operating performance for the month of January 2018 showed a strong corrugated board volume increase of 18.3% compared to January 2017, supported by the commencement of production in April 2017 and successful subsequent ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland. As a result of this strong increase in corrugated board volume and significant price increases for our corrugated board products during the course of 2017, our total sales for the month of January 2018 increased by 29.4% to approximately €84 million, compared to total sales of approximately €65 million for the month of January 2017. With a growth rate even stronger than the increase in total sales, our EBITDA for the month of January 2018 jumped by 85.0% to approximately €26 million, from EBITDA of approximately €14 million in January 2017.

The foregoing financial information is based on internal unaudited consolidated monthly accounts for the months of January 2018 and 2017, respectively, which were prepared by and are the responsibility of our management. This financial information has not been audited, reviewed, compiled or the subject of any procedures by our independent auditors or any other audit firm and no opinion nor any other form of assurance is expressed with respect thereto. The foregoing financial information is inherently subject to modification during the preparation of our financial statements as of and for the three months ended March 31, 2018. The presented financial information is not representative for any three-month or twelve-month period and should not be regarded as an indication, forecast or representation by us or any other person regarding our future financial performance for the three months ended March 31, 2018 or the fiscal year ended December 31, 2018. See "*Forward-Looking Statements*" and "*Risk Factors*" for a more complete discussion of certain factors that could affect our future performance and results of operations.

We currently also expect a strong increase in corrugated board volume for the full first quarter of 2018, compared to the first quarter of 2017. However, any potential future increases in corrugated board prices as a result of the recent containerboard price increases (see "*—Market Update*" above) would not have a positive impact on our results of operations until the second quarter of 2018.

THE REFINANCING AND CERTAIN RELATED TRANSACTIONS

On the date of this annual report, the Company announced the launch of an offering of €450,000,000 aggregate principal amount of senior secured notes due 2026 (the "**New Notes**"). The Company intends to use a portion of the proceeds from such offering (i) to redeem in full the €345 million outstanding principal amount of its 5.125% senior secured fixed rate notes due 2022 (Regulation S ISIN: DE000A161GC3; Rule 144A ISIN: DE000A161GD1) on 2 May 2018 and (ii) to pay transaction costs, fees and expenses (the issuance of the New Notes and the transactions described under (i) and (ii) collectively referred to as the "**Refinancing**").

On December 21, 2017, the Company and the Guarantors entered into amendment and restatement agreements relating to the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities (the "**Amendment and Restatement Agreements**"). Pursuant to the terms of the Amendment and Restatement Agreements, the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities will be amended and restated in their entirety with effect from (and including) the Effective Date (as defined in each Amendment and Restatement Agreement). The Effective Date under each Amendment and Restatement Agreement will be the date on which the relevant agent under the Super Senior Revolving Credit Facility and each Senior Secured PLN Facility, as applicable, notifies the Company and the relevant lenders that all relevant conditions precedent under the relevant Amendment and Restatement Agreement are satisfied. We expect to satisfy all remaining conditions precedent and, therefore, the Effective Date under the Amendment and Restatement Agreements to occur, on or around the issue date of the New Notes.

In addition to various technical amendments and improvements, pursuant to the terms of the Amendment and Restatement Agreements, the covenant schedule of each of the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities will be amended and restated so that the relevant restrictive covenants will more closely track those contained in the conditions of issue of the Senior Secured Floating Rate Notes. Furthermore, the Super Senior Revolving Credit Facility, as amended and restated by the relevant Amendment and Restatement Agreement, will generally have significantly improved terms and allow the Company greater flexibility, including through the option to increase the total commitments under the Super Senior Revolving Credit Facility from currently €50,000,000 to up to €80,000,000. For more detail on the terms of the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities, in each case as amended and restated pursuant to the Amendment and Restatement Agreements, see "*Description of Certain Financing Arrangements—Amended and Restated Super Senior Revolving Credit Facility*" and "*Description of Certain Financing Arrangements—Amended and Restated Senior Secured PLN Facilities*" below.

Concurrently with the entry into the Amendment and Restatement Agreements on December 21, 2017, the Company and the Guarantors also entered into the Senior Secured EUR Facility and the Senior Secured GBP Facility. The utilization of the Senior Secured EUR Facility and the Senior Secured GBP Facility is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the New Notes. As a result, the Senior Secured EUR Facility and the Senior Secured GBP Facility currently remain undrawn. For more details on the terms of the Senior Secured EUR Facility and the Senior Secured GBP Facility, see "*Description of Certain Financing Arrangements—Senior Secured EUR Facility*" and "*Description of Certain Financing Arrangements—Senior Secured GBP Facility*" below.

On or prior to the issue date of the New Notes, we intend to further amend the Amendment and Restatement Agreements, the Senior Secured EUR Facility and the Senior Secured GBP Facility so that the restrictive covenants in the covenant schedule of each facility will closely track the relevant restrictive covenants contained in the conditions of issue of the New Notes.

In connection with the entry into the Senior Secured EUR Facility with IKB Deutsche Industry Bank AG, Prowell GmbH further terminated its hire-purchase (*Mietkauf*) agreement with IKB Leasing GmbH dated March 23, 2015, pursuant to which it had leased from IKB Leasing GmbH the essential parts of a corrugator, which Prowell GmbH operates at its corrugated board production site (PW9) adjacent to the premises of Prowell GmbH's customer, Liebensteiner Kartonagenwerk GmbH, in Plössberg, Germany. In accordance with the terms of the hire-purchase agreement, Prowell GmbH acquired previously leased assets upon termination of the hire-purchase agreement, and such assets have since become a part of the Collateral.

Following the completion of the Refinancing, we intend to enter into an amendment and restatement agreement relating to the Intercreditor Agreement. In addition to various technical amendments that will not adversely affect the holders in any material respect, we intend to amend and restate the definition of "Credit Facility" and related terms in the Intercreditor Agreement to include, in addition to the Super Senior Revolving Credit Facility, certain credit facilities which are permitted by the terms of the Pari Passu Debt Documents (as defined in the Intercreditor Agreement) to receive priority to the Pari Passu Debt Liabilities (as defined in the Intercreditor Agreement) with respect to the proceeds of any enforcement of the Collateral. As a result, the total amount of Indebtedness under a Credit Facility that may be secured by Liens on a super priority basis will increase from up to €50 million to up to €80 million. In addition, we intend to amend and restate the Intercreditor Agreement to increase the Priority Hedging Limit (as defined in the Intercreditor Agreement) from up to €35 million to up to €80 million. For more details on the Intercreditor Agreement as so amended and restated, see "*Description of Certain Financing Arrangements—Amended and Restated Intercreditor Agreement*" below.

Following the completion of the offering of the New Notes, the Company further proposes to use a portion of the proceeds from the offering of the New Notes to pay a special cash dividend of approximately €76.0 million to the JH-Holding and its minority shareholders (the "**Special Cash Dividend**") for the purpose of enabling JH-Holding to redeem a portion of the remaining €81,061,544 outstanding principal amount of the PIK Toggle Notes. On March 8, 2018, the Company already made €19.3 million in lump sum fee payments to JH-Holding and our minority shareholders

in consideration for granting security over their shares in the Company to secure its obligations under the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured EUR Facility, the Senior Secured GBP Facility, the Senior Secured Floating Rate Notes and the New Notes, as described in more detail under "*Certain Relationships and Related Party Transactions—Provision of Share Pledges by JH Holding and our Minority Shareholders*" below. JH-Holding has informed us that it intends to use the funds from this lump sum fee payment together with its share of the Special Cash Dividend as well as cash-in-hand, bank balances for the redemption in full of the remaining outstanding principal amount of €81,061,544 of the PIK Toggle Notes plus applicable premium and accrued interest on or around June 1, 2018.

Concurrently with the Company's proposed application to The International Stock Exchange Authority Limited (the "**Authority**") for the listing of and permission to deal in the New Notes on the Official List of The International Stock Exchange (the "**Exchange**"), Progroup AG also proposes to apply to the Authority for the listing of and permission to deal in the Senior Secured Floating Rate Notes on the Official List of the Exchange. If such application is successful, we propose to apply for the Senior Secured Floating Rate Notes to be removed from the Official List of the Luxembourg Stock Exchange and from trading on the Euro MTF market.

RISK FACTORS

In addition to the other information contained in this annual report, you should carefully consider the following risk factors. If any of the events described in the risk factors below occur, our margins and results of operations and financial condition could be materially and adversely affected,. The risks described below are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially adversely affect our business, financial condition, operating results or prospects.

This annual report also contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward looking statements as a result of various factors, including the risks described below and elsewhere in this annual report. See "Forward-Looking Statements".

RISKS RELATED TO OUR INDUSTRY AND OUR BUSINESS

Demand for our products is generally driven by the level of economic growth and activity, which is dependent upon factors beyond our control.

Demand for our products is generally driven by the level of economic growth and activity. Increased levels of economic growth and activity typically result in higher per-capita use of packaging materials, both with respect to transportation of goods and consumer presentation. This increase in the use of packaging materials (including paper-based packaging materials), in turn, results in an increase in the demand for our recycled containerboard and corrugated board products. Because the markets for containerboard and corrugated board products in the developed economies in which we primarily operate are generally mature, historically there has been a close correlation between general economic growth and demand for packaging products such as corrugated containers and, therefore, for their component materials such as containerboard and corrugated board. As a result, our industry is affected by economic conditions in our markets, including changes in national, regional and local unemployment levels, shifts in consumer spending patterns, credit availability, and business and consumer confidence. Disruptions in the overall economy and volatility in the financial markets could reduce consumer confidence, negatively affecting consumer spending, which could be harmful to our financial position and results of operations. In the last several years, we have been impacted by difficult economic conditions. The European debt crisis resulted in market uncertainty generally and in weak economic conditions, particularly in the Eurozone. We are unable to predict the timing or rate at which economic conditions in our markets may recover. Finally, we cannot predict the timing or duration of any other downturn in the economy that may occur in the future. While we experienced strong operating results in 2016 and 2017, there can be no guarantee that our strong operating performance will continue or that our EBITDA will not decline.

The cyclical nature of our industry often results in overcapacity which negatively impacts our results of operations.

We principally generate revenue through the sale of containerboard and corrugated board. Our mills primarily sell the containerboard we produce to Group-owned corrugated board plants, and we sell our corrugated board to our third-party customers in the packaging industry. Our operating results are therefore impacted by the packaging industry's historical cyclical pattern, with periods of overcapacity and resulting pressure on pricing of packaging products such as corrugated containers and, in turn, their component materials such as containerboard and corrugated board. This cyclicality results, in part, from significant imbalances in supply and demand for containerboard. On the one hand, containerboard production capacity cannot be readily adapted to reflect changing market conditions, due to the high capital intensity of facilities such as containerboard mills (which generally continue production as long as paper prices are sufficient to cover their marginal costs), the long lead time between the planning and completion of new containerboard mills and the fact that new additions of containerboard capacity tend to be large relative to the overall demand for the product. On the other hand, significant containerboard and corrugated board price reductions and inventory growth have resulted when capacity has exceeded demand. In addition, there is the potential to convert graphic and newsprint paper machines into containerboard machines which has happened recently both in Europe and the United States, and which may contribute to overcapacity. Consequently, the containerboard and corrugated board industry has from time to time experienced periods of substantial overcapacity and there can be no assurance that this will not reoccur. Overcapacity in the European market has generally had a negative impact on prices. See "*Industry and Competition—End-Markets Dynamics*" and "*Industry and Competition—Key Market Developments*".

In the absence of sufficient economic growth to generate increased demand or the closure of facilities (either temporarily or permanently) to mitigate the effect, new capacity can cause a period of regional overcapacity which may lead to downward pricing and margin pressure. In periods of overcapacity, industry participants may stop operating certain of their production facilities periodically to reduce inventory levels. In the past, many leading paper manufacturers have reacted to reduced demand by taking downtime and by rationalizing high-cost and inefficient capacity. Due to the high level of integration between our two mills and our corrugated board production sites, it is unlikely that we would take downtime at our mills for any significant length of time, but even if we did so and our competitors continue production at high levels, our sales volumes could be adversely affected without any significant offsetting benefit of improved prices in

the market. In the event that the industry as a whole does not take sufficient downtime or other measures to reduce capacity during any periods of overcapacity, this could have a material adverse effect on our margins and results of operations and financial condition.

Overcapacity in the European containerboard and/or corrugated board markets could be further exacerbated by an increase of imports from other regions and/or a decrease of exports by European producers to other regions, as a result of a variety of factors. For example, in the event that producers in other regions (particularly the United States and China) experience overcapacity within their own local and regional markets, they may seek to increase their level of exports to Europe and do so at lower pricing levels. This could adversely affect our selling prices and profitability. In addition, the level of exports of containerboard from or to Europe also depends on relevant freight rates and currency rates. A strong euro, for example, can have a negative effect on (U.S. dollar-denominated) exports by European containerboard manufacturers with a negative (for our business) effect on the supply and demand balance and an immediate effect on the pricing of containerboard in Europe. In addition, a weak U.S. dollar over a sustained period has, in the past, also resulted in lower sales by other European manufacturers who ship products in corrugated packaging, resulting in lower European demand for corrugated packaging, and therefore for our containerboard and corrugated board. See also "*—We are exposed to currency exchange rate fluctuations*".

We could be adversely affected by the loss of one or more important customers and the nature of, and close relationships with, our small and medium-sized customers exposes us certain risks.

In 2016 and 2017, no single customer represented more than 5% of our total sales. However, our level of customer concentration may increase in the future as a number of industries have experienced consolidation in the past and the packaging industry in which our customers operate may also be affected by consolidation in the future. In addition, while no particular customer is significant to our Group as a whole, a number of our customers account for a significant portion of the sales volumes of one or more of our individual corrugated production sites. Therefore, a loss of one or more of those customers could have a material adverse effect on the utilization and results of operation of the affected corrugated board production sites and negative impact our Group's total sales. For example, one of our largest customers, which accounted for 4% of our total sales in 2016, commenced production at its own, newly-established corrugated board production facility at the end of 2016. As a result, we lost approximately 90% of our related corrugated board sales with that customer in 2017. If other Prowell customers similarly establish their own corrugated board production facilities, it is likely that we would also lose most or all of our related corrugated board sales to any such customers.

In addition, a large proportion of our customers are small- or medium-sized, family-owned businesses that are managed by members of the owner family. A sale of any of those businesses to one of our competitors or to a box manufacturer with its own corrugated board production, either in connection with a succession event or otherwise, may therefore lead to a loss of the relevant customer. Furthermore, our own performance and potential future growth generally depends, to a large extent, on the performance of our customers, which are exposed to many of the same risks as our own business. Our small- and medium-sized customers may also be particularly vulnerable (i) to competition from larger competitors with greater financial resources and which are able to capitalize on their economies of scale and (ii) to pricing pressure from their own, often much larger customers.

The standardized nature of containerboard could result in downward pressure on pricing and, as a consequence, lower earnings.

Containerboard cannot generally be differentiated by producer, and this standardization has led to intensified price competition. This, in turn, creates significant downward pressure on the prices of our products during periods of market overcapacity or weak demand, which could reduce sales and have a material adverse effect on our margins and results of operations and financial condition. Our business has in the past faced significant downward pricing pressure, including as a result of standardization in the markets in which we operate. Given the general upward trend in almost all our input costs and the potential for an increase in the currently stable energy prices, we expect we will need to further increase prices in the mid- to long-term to ensure that earnings from recycled containerboard remain at a long-term sustainable economic level. We are likely to continue to be exposed to such factors in the future. If we are unable to adjust our cost base or achieve economies of scale comparable to our competitors, pricing pressure could have a material adverse effect on our margins and results of operation and financial condition.

Operational disruptions at our facilities, in particular our two mills, could have a material adverse effect on our margins, results of operations and financial condition.

We currently operate two containerboard mills in Germany, which account for all of our containerboard production. Each of them is, therefore, critical to our business. If operations at either of our two mills were interrupted for any significant length of time, either because of natural disasters (such as flooding or fire), man-made disruptions (such as labor strikes), failure to obtain raw materials, technical defects, accidents or for any other reason, it would have a material adverse effect on our business, results of operations and financial position. For example, a technical defect at our mill in

Eisenhüttenstadt caused multiple shutdowns during 2011 and 2012, resulting in significant loss of containerboard production and significant financial loss, which was only partly covered by compensation payments from one of our equipment manufacturers in the following year. In addition, due to the high level of integration between our two mills and our corrugated board production sites, any significant interruption of our containerboard production at one or both of our mills would also have a significant adverse effect on our corrugated board production and our ability to supply our corrugated board customers. Any significant disruptions at one or more of our corrugated board production sites, either because of problems with our containerboard supply (either from our two mills or from external suppliers) or for any of the other reasons listed above, could also have a material adverse effect on our business, results of operations and financial condition. Due to the currently very high level of utilization of all our production sites, our ability to fulfill customer orders from alternative sites in case of a significant disruption at one of more production sites is limited. Finally, the operation of most of our production sites also depends on key services and infrastructure provided by third parties. For example, we rely on highly specialized employees of our equipment suppliers to ensure the proper maintenance and repair of our production equipment. In addition, the uninterrupted operation of our paper mill in Eisenhüttenstadt depends, among other things, on the availability of a waste water treatment plant operated by the local municipal utility and a secure supply of production steam either by the CHP and/or by a neighboring power plant which we use as a back-up solution. In 2016 and 2017, capacity limitations of the local waste water treatment plant in Eisenhüttenstadt due to technical faults have led to temporary reductions in the containerboard production capacity of our paper machine PM2. Significant future capacity limitations of the local waste water treatment plant or a shutdown of the local waste water treatment plant would require us to reduce or shutdown containerboard production at our paper machine PM2, as there are no alternative local water treatment options. In addition, due to technical faults in the steam pipeline that connects our mill in Eisenhüttenstadt to the neighboring power plant, there is no guarantee that this back-up solution will be available in the event of maintenance or other shutdowns of the CHP. Furthermore, our insurance coverage may be inadequate or not cover all losses. See "*Risk Factors—Risks Related to Our Industry and Our Business—Our insurance coverage may not be adequate to cover all the risks we may face and if we were no longer covered by our existing insurance, it may be difficult to obtain replacement insurance on acceptable terms or at all*". If one or more of the aforementioned risks materializes, this could have a material adverse effect on our business, results of operations and financial condition.

We are exposed to intense competition in the containerboard and corrugated board industry.

We operate in a highly competitive and fragmented industry. The containerboard and corrugated board industry is characterized by a high level of price competition as well as other competitive factors, including innovation, design, quality and service. To the extent that any of our competitors are more successful with respect to any key competitive factor, our margins, results of operations and financial condition could be adversely affected. Pricing pressure could arise from, among other things, limited demand growth and existing overcapacity in the market in question, new competitors entering the market, capacity increases by competitors, including by converting, enhancing or intensifying the use of existing production facilities or by setting up additional production facilities, price reductions by competitors, the ability of competitors to capitalize on their economies of scale and create excess product supply, the ability of competitors to operate or successfully relocate or open production facilities in countries where production costs are lower than those in which we operate and the access of competitors to new technology which we do not possess.

We are exposed to the risk of product substitution.

The products of our customers in the paper-based packaging industry compete with other forms of packaging, principally reusable plastic containers. Substitution of plastic containers for corrugated containers may increase in the future and other substitute products may be introduced. Future packaging developments and trends may drive further substitution. Substitution is also possible between solidboard packaging and corrugated containers, with the generally lower cost of corrugated containers offset by the moisture and temperature handling characteristics of solidboard packaging. Any significant substitution away from paper-based packaging products or from corrugated board to solidboard may adversely affect the demand for our products and therefore our results of operation and profitability.

Price fluctuations in raw materials and our ability to pass on price increases could affect our results of operations.

Our margins and overall profitability are significantly affected by the price of raw materials and the length of time it takes us to translate price increases in raw materials and other input costs into prices we charge for third-party sales of containerboard and corrugated board. To the extent our containerboard is sold internally, our profitability will only be affected by the ability to recover any price increases from third-party sales of corrugated board to our third party customers in the packaging industry. Furthermore, to the extent that selling prices fall, if we are unable to generate cost savings through producing products more efficiently or lower our fixed costs, our results may be negatively affected.

In total, raw materials accounted for 70.0% and 75.2%, respectively, of our cost of materials in the year ended 2016 and 2017. Our primary raw materials are recycled paper, particularly old corrugated containers, and containerboard. The prices for these raw materials tend to be volatile, and price fluctuations affect our margins. Recycled paper is used in the

manufacture of our containerboard products and is purchased in increasingly competitive, price-sensitive markets. Recycled paper has historically exhibited price and demand cyclicality and high price volatility over short periods and may do so again in the future. In particular, the price of recycled paper depends on a variety of factors over which we have no control, including environmental and conservation regulations, natural disasters and weather. A decrease in the supply of such raw materials has caused, and any such decrease in the future can be expected to cause, higher costs of materials. In addition, the increase in demand for products manufactured, in whole or in part, from recycled paper has in the past caused an occasional supply or demand imbalance in the market for recycled paper. Chinese purchasers have been in the recycled paper market for a number of years and have become material purchasers in the sector due to significant ongoing expansion of their recycled containerboard mills' capacity. Other important drivers of recycled paper prices are collection rates of recycled paper as well as freight rates and exchange rates, which both affect the level of exports of recycled paper from Europe to other markets. In the past, significant decreases in the prices for recycled paper have led to a reduction in collection activity, which, in turn, can lead to supply shortages. The effect of these and other factors has been to create volatility with respect to the price of recycled paper, and we expect recycled paper prices to continue to fluctuate based upon supply and demand characteristics.

In addition to recycled paper, which we use extensively in our containerboard production at our two mills, we also purchase containerboard from external suppliers as a raw material for our corrugated board production. The prices of containerboard can also be highly volatile. See also "*—Demand for our products is generally driven by the level of economic growth and activity, which is dependent upon factors beyond our control" and "—The cyclical nature of our industry often results in overcapacity which negatively impacts our results of operations" above, as well as "—We are exposed to currency exchange rate fluctuations*" below.

An important driver of recycled paper prices is the balance of supply and demand for paper products in general as well as collection rates of recycled paper. When the price of recycled paper begins to rise, containerboard manufacturers attempt to raise their prices to preserve profit margins, which generally narrow as a result of increased raw material costs. It typically takes approximately two to three months for the containerboard mills to pass on their raw material price increases to the corrugated board manufacturers. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for manufacturers, including us, to pass these increases on to their customers. In particular during periods of rising recycled paper prices, our profitability has therefore historically been adversely affected.

However, our ability to pass the costs of our raw materials and other input costs on to our packaging customers depends on a number of other factors, including the supply and demand balance for containerboard and corrugated board in a particular region and the ability of our customers to maintain or increase prices with their own customers. We generate almost all of our sales through purchase orders from our customers based on our price lists which we adjust in response to market price movements and only have very few contracts with our customers which provide minimum purchase obligations and/or pricing clauses that would allow us to automatically pass increased costs on to our customers. As a result of these factors, there can be no guarantee that the price of recycled paper and the prices for our containerboard and corrugated board products will always be closely correlated. Any extended mismatch between the price of recycled paper and the market prices for our products could have a significant effect on our margins and results of operations and financial condition.

For example, between 2009 and 2010, our results of operations and financial condition deteriorated. There were two main reasons for this deterioration. First, the global financial and economic crisis led to a significant drop in the price of recycled paper, our main raw material, in the second half of 2008, but also to a significant decrease in the demand for our products and a corresponding decrease in the market prices for both containerboard and corrugated board. Following the significant drop in the prices for recycled paper in the second half of 2008, the prices for recycled paper started to recover in the first half of 2009, notwithstanding the continuing economic weakness and contrary to historic trends. This, in turn, led to a compression of our margins up to a point during the third quarter of 2009 when the sales prices for some of our finished products were insufficient to cover our variable input costs. As a result, we incurred significant losses and a few of our competitors were forced to close or mothball less efficient production facilities, which led at least temporarily to a drop in market-wide containerboard and corrugated board capacity. Our margins only returned to near sustainable levels towards the end of 2010, following multiple rounds of price increases for recycled paper, containerboard and corrugated board.

Increased energy costs could have a material adverse effect on our business, financial condition and results of operation.

Our production processes, in particular our containerboard production at our two mills, are energy intensive, and energy costs, including costs for electricity, gas and steam, represent a significant portion of our total cost of materials. As described in more detail under "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The CHP Acquisition*", effective as of midnight on December 31, 2015, we acquired Propower GmbH (formerly: EnBW Propower GmbH), the CHP and certain related

assets outright. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. Despite the completion of the CHP Acquisition our production processes are nevertheless reliant on third parties for the supply of energy. Market prices for energy, in particular for electricity, oil and natural gas, have historically been volatile and have had a corresponding effect on our production costs. If energy prices increase in the future, this would increase our production costs, which could consequently have a material adverse effect on our profitability. See also "*—Our energy costs, in particular in Germany, are dependent on the regulatory framework for the electricity sector, which is subject to constant change and, in addition, we may face material cost increases if we lose certain financial privileges which we benefit from in Germany with regard to the Renewable Energies Act (Erneuerbare Energien Gesetz, "EEG") surcharge and network access fees and other fees*" below.

Although we expect that the CHP Acquisition will lead to a sustained reduction of our energy costs, as described in more detail under "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The CHP Acquisition*", neither the CHP Acquisition nor the other measures we have taken to reduce our exposure to fluctuating energy prices may be adequate and they may even be counter-productive. Following completion of the CHP Acquisition, we have become directly responsible for, and are bearing all risks related to, the day-to-day operation of the CHP, which includes responsibility for unexpected repair costs, for any shutdowns of the CHP as well as the operational risks associated with the disposal of the ash generated by the CHP (*i.e.*, that we are unable to procure the proper disposal of the ash and may therefore be forced to shut down the CHP). There can be no guarantee that the operating expenses for the CHP will not increase in the future. See also "*—We may not be successful in operating the CHP ourselves in the long-run*". In addition, we bear the full economic risk related to the procurement of refuse-derived fuels for the CHP. Further, our outside suppliers may default on their obligations under our refuse-derived fuel supply agreements with them. Any significant increase in market prices, transportation costs, grid fees or taxes (including by reduction of tax benefits) associated with the supply of energy would also increase our operating costs. Any inability or delay in passing on increases in energy costs to our customers or any interruption or shortage of energy supply may negatively impact our margins and results of operations and financial condition.

Our energy costs, in particular in Germany, are dependent on the regulatory framework for the electricity sector, which is subject to constant change and, in addition, we may face material cost increases if we lose certain financial privileges which we benefit from in Germany with regard to the Renewable Energies Act (Erneuerbare Energien Gesetz, "EEG") surcharge and network access fees and other fees.

In addition to general market dynamics, our energy costs are influenced by the relevant regulatory framework for the electricity sector both on the European and the national level. In the past years, this regulatory framework has been subject to substantial change and it will continue to be subject to change in the future. Such change is not only due to legislative reforms, but is also prompted by administrative and judicial decisions.

In Germany, where both our mills are located, our energy costs have been strongly impacted by regulatory decisions related to the so-called "*Energiewende*", a significant shift in government policy following the nuclear accident in Fukushima, Japan in 2011. This new German energy policy focuses on promoting the development of renewable energy sources and contemplates the complete cessation of the production of nuclear power by 2021. To mitigate the impact of the resulting significant increases in electricity prices for energy-intensive industries, the German government adopted rules that provide for various businesses, including us, to be reimbursed for certain infrastructure investment surcharges necessary for the implementation of the "*Energiewende*". However, those rules have not only been subject to challenges in German courts and EU scrutiny as potentially illegal subsidies, but also continue to be the subject of political scrutiny by various interest groups. Although the relevant rules have been modified to address certain of these concerns, there is no guarantee that they will not change again or that we will continue to be able to benefit from current accommodations, reimbursement rules and/or energy tax refund schemes. In particular, it cannot be ruled out that the EU may introduce more stringent conditions for any such accommodations, reimbursement rules and/or energy tax refund schemes in the future and/or may further restrict the ability of companies to combine benefits of different reduction schemes (so-called "cumulation"). As an "energy-intensive enterprise", we have historically benefitted, and in 2018 we continued to benefit, from considerable reductions of the so-called EEG surcharge (*EEG Umlage*), a charge which is levied on electricity consumers to fund the financial promotion of renewable energy sources. In 2015, 2016 and 2017, for example, such reductions decreased our energy costs by approximately €28.3 million, €28.6 million and €30.4 million, respectively.

Other countries in which we operate production facilities or may operate production facilities in the future, may adopt similar policies in order to promote the usage of renewable energy sources. As a consequence thereof, the energy price could increase and there can be no guarantee that we will be reimbursed to the extent to which the price increased, to the same extent as currently in Germany or even at all. This could consequently adversely affect the revenue of our production facility and may force us to adopt capital-intensive countering measures or ultimately close the plant. In addition, we currently benefit from various other privileges and exemptions from energy-related laws and regulations in Germany, including benefits pursuant to § 19 of the German Ordinance on Electricity Network Access Fees (*Stromnetzentgeltverordnung*), the German Electricity Tax Act (*Stromsteuergesetz*) and other laws and regulations. Should we lose any or all of these privileges and exemptions, this could have a material adverse effect on our margins

and results of operations and financial condition. Finally, compliance with the EU Emission Trading Scheme Directive (the "**ETS**") could significantly increase our costs. Our two mills are subject to the ETS. To date, the collective CO_2 allocations granted to our mills have exceeded our collective annual CO_2 emissions. The revised ETS Directive for the period 2013-2020, however, will reverse the excess position over time. The paper industry has been granted status as a so-called "carbon leakage" sector and therefore our two mills receive CO_2 emission certificates for free. Even with these certificates granted for free, there is considerable risk that in the future our costs will significantly increase and will not be recovered through higher prices for our end products. See also "*Business—Regulatory Environment—Regulation governing the operation of the CHP*".

We may fail in successfully implementing our business strategy.

In order to continue to realize cost savings or process optimizations, we must continue to optimize our costs, improve our procurement process, realize certain operating efficiencies and improve the efficiency of our sales force. Key focus areas of our Continuous Improvement Program involve (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. As we are unable to influence commodity and energy prices directly, our competitiveness and long-term profitability are, to a significant degree, dependent upon our ability to reduce costs (including the costs of raw materials and consumables such as power, labor and transport) and maintain low-cost, efficient operations. Our production costs are also significantly affected by production volumes and, therefore, our ability to maintain production levels and maximize capacity utilization will be a key factor in determining our overall cost competitiveness. Our ability to maintain earnings and undertake capital expenditure could be adversely affected in the event of a sustained material fall in prices for our products, an appreciable rise in our production costs or a decline in our production volumes. A number of factors beyond our control, such as operating disruptions, personnel turnover, competition, unforeseen delays in implementing initiatives and general economic and industry conditions as well as future development on the energy markets, could have an adverse effect on our ability to implement our strategy by limiting our ability to grow or our ability to reduce costs and increase efficiency which could have a material adverse effect on our business. We may not be successful in achieving cost savings, generating growth and increasing our cash flows and profitability.

Efforts to improve our operational efficiency in accordance with our business plan may not be effective and may adversely impact our sales and marketing operations, product development and production processes.

We have implemented and are continuing to implement various projects to improve our operational efficiency, including our production network and processes as well as sales, marketing, procurement and product development. Some of these operational improvement initiatives and cost reduction measures represent important aspects of our business plan, in particular our initiatives in connection with the continuing optimization of our paper machine PM2 and our continuing efforts to further optimize production of our paper machine PM1 and our corrugators. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results of Operations—Continuous Improvement Program" and "Business—Our Strategy—Maintain cost leadership through continuous efficiency and profitability improvements*".

If our ongoing efforts to improve our operational efficiency fail or the implementation of cost improvement measures are not effective, sustainable or achievable within the anticipated time frame, the quality and cost of our products and our competitive position in the industry may suffer. Additionally, because we have factored the expected benefits of these improvement initiatives and cost reduction measures into our business plan, our inability to successfully execute these plans or our failure to realize the expected economic benefits of these plans could have a material adverse effect on our margins and results of operations and financial condition.

The costs and difficulties of integrating complementary businesses through organic and acquisitive expansion could impede our future growth and adversely affect our competitiveness.

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term "Two Twentyfive" strategy. In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland in 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018, and in October 2017, Prowell Ltd. broke ground and commenced construction of a new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom. In the short-term to mid-term, we intend to continue to focus our investment activities on further expanding our corrugated board production capacity, and we currently expect to establish up to four further corrugated board production sites in Central Europe between 2019 and 2021. However, in order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in

sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Prowell, we have also begun to actively pursue the realization of a potential further paper machine project (PM3). We currently expect to invest a total of approximately €375 million just in the potential paper machine project over a several year period, with initial expenditures (e.g. for purchasing the land and certain preliminary work) as early as 2018 or 2019. See also "*Business—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*" below.

Risks that we could face with respect to any those proposed and any potential further expansion project may include:

- greater than expected costs and management time and effort involved in identifying, completing and integrating expansions, acquisitions, packaging park projects or joint ventures;
- potential disruption of our ongoing business and difficulties in maintaining our internal control environment, information systems and procedures;
- the inability to successfully integrate the services, products and personnel of any acquisition into our operations or to realize any expected cost savings or other synergy benefits from any acquisition;
- customer overlap/loss of customers supplied prior to the acquisition by both us and the acquired group;
- incurrence of unexpected, actual or contingent liabilities;
- a need to incur debt, which may reduce our cash available for operations and other uses due to increased debt service obligations; and
- lack of return on our investment, including as a result of increased competition for acquisition targets and higher purchase prices for such acquisitions.

The impact of any such future expansion projects, acquisitions or joint ventures on us cannot be predicted and any of the risks outlined above, should they materialize, could have a material adverse effect on our margins and results of operations and financial condition.

We are exposed to currency exchange rate fluctuations.

Given the growing geographic spread of our operations, we are increasingly exposed to currency exchange rate fluctuations. For example, the United Kingdom, the Czech Republic and Poland do not use the euro as their national currency. During the year ended December 31, 2017, 8%, 7% and 14% of our total sales derived from sales in British pounds, Czech koruna and Polish zloty, respectively. In addition, we currently finance several of our foreign subsidiaries, including subsidiaries outside the euro zone, through borrowings in euro.

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the Polish zloty, Prowell sp. z o.o. entered into the 2015 Senior Secured PLN Facility on December 1, 2015 to pay back euro denominated intra Group loans. To finance the investment in our corrugated board production site (PW10) in Trzcinica, Poland, Prowell sp. z o.o. entered into the 2016 Senior Secured PLN Facility on May 31, 2016. As of December 31, 2017, PLN 85.6 million (carrying amount at December 31, 2017: €20.5 million, calculated based on an exchange rate of €1.00 = PLN 4.177, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on December 31, 2017) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 92.0 million (carrying amount at December 31, 2017: €22.0 million, calculated based on an exchange rate of €1.00 = PLN 4.177) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this annual report, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. The adjusted figures do not reflect PLN 5.4 million and PLN 3.0 million, respectively, in scheduled repayments under the 2015 Senior Secured PLN Facility and the 2016 Senior Secured PLN Facility we will be required to make on March 31, 2018. For more details about the Senior Secured PLN Facilities, including scheduled repayments on the Senior Secured PLN Facilities, see "*Description of Certain Financing Arrangements—Amended and Restated Senior Secured PLN Facilities*".

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the British pound, Prowell Ltd. entered into the Senior Secured GBP Facility on December 21, 2017. The utilization of the Senior Secured GBP Facility is subject to certain conditions precedent, which we all expect to satisfy on or around the issue date of the New Notes. As a result, the Senior Secured GBP Facility currently remains undrawn. We may utilize the GBP70.0 million Senior Secured GBP Facility until May 31, 2019. For more details about the Senior Secured GBP Facility, see "*Description of Certain Financing Arrangements—Senior Secured GBP Facility*".

Prior to the 2015 Refinancing, we were not permitted under our former financing arrangements to hedge for currency risks. As a result, fluctuations in the value of local currencies against the euro have had, and may have in the future, a significant effect on our operations and on our reported results in euro and the comparability of our performance between financial periods can be significantly affected by fluctuations in local currencies against the euro. We have since started to implement foreign currency risk management in order to monitor our foreign currency risk and to enable us to consider taking action if we decide to do so, but there is no assurance that any such foreign currency risk management will be effective. As a result, fluctuations in the value of these local currencies against the euro may have a significant adverse effect on our operations and on our reported results in euro.

The relative strength or weakness of the U.S. dollar is also important for the European containerboard industry, because exports from the European market influence the balance of supply and demand and the price development of containerboard in Europe. Movements in the U.S. dollar exchange rate may also have an effect on trading. A weak U.S. dollar over a sustained period has historically resulted in lower (U.S. dollar-denominated) exports by European containerboard manufacturers with a negative (for our business) effect on the supply demand balance and an immediate effect on the pricing of containerboard in Europe. In addition, a weak U.S. dollar over a sustained period has, in the past, also resulted in lower sales by other European manufacturers who ship products in corrugated packaging, resulting in lower European demand for corrugated packaging, and therefore for our containerboard and corrugated board. A weak U.S. dollar may also result in additional competition in the European market from U.S. manufacturers that have an incentive to sell more products in Europe, due to increased European demand for the relatively lower-priced U.S. goods over higher-priced European goods.

The success of our business relies on certain key personnel (in particular, our chief executive officer Jürgen Heindl), and our ability to attract and retain key personnel, other qualified management personnel and skilled workers.

The success of our business relies to a considerable extent on the efforts, abilities and reputation of our executive board and our senior management team, especially our chief executive officer, Jürgen Heindl. Mr. Heindl has been responsible to a significant extent for our historical growth and strategic development. The loss of Mr. Heindl or other key personnel could significantly disrupt our business and have a material adverse effect on our margins and results of operations and financial condition. Further, if we lost any of our key personnel, there can be no assurance that we will be able to successfully find a suitable replacement in a timely manner, or at all.

In addition, the success of our business depends on our ability to attract and retain qualified management personnel and skilled workers in the long-term. We compete with a large number of other companies when recruiting qualified employees. There is an increasing shortage of qualified personnel in the markets in which we operate, especially personnel with technical, IT or engineering skills. If we are unable to continue to attract and/or train qualified employees sufficiently and to retain those employees, this could have a material adverse effect on our business, results of operations and financial condition. See also "*—Our ability to successfully operate the CHP depends on our ability to attract and retain experienced personnel*".

Failure to maintain good employee relations may affect our operations and the success of our business.

Future developments in relation to our business or otherwise could adversely affect relations with our employees and their works councils. Labor disputes, strikes or work stoppages could lead to a substantial interruption to our business operations or otherwise adversely affect the Group and have a material adverse effect on our operating results and financial condition.

We may be adversely affected by increasing costs in maintaining our required level of workforce.

During the year of 2017, we had an average of 1,040 employees (excluding trainees) and personnel expenses constitute a significant proportion of our cost base. Accordingly, inflationary pressures, changes in applicable laws and regulations or other factors resulting in increased labor costs could have a material adverse effect on our margins and results of operations and financial condition.

We are subject to numerous environmental, health and safety laws and regulations, and the cost of compliance or the failure to comply with, and any liabilities under, current and future laws and regulations may negatively affect our business.

We are subject to a wide range of international, national, state and local environmental, health and safety laws and regulations in the jurisdictions where we operate, including those governing the discharge of pollutants into the air and water, the use, storage and disposal of hazardous substances and wastes and the clean-up of contaminated properties. We could incur significant costs, including fines, penalties, civil and criminal sanctions, investigation and clean-up costs, third-party claims for property damage or personal injury or enforcement actions, including regulatory or judicial orders

enjoining or curtailing operations or requiring corrective measures, the installation of pollution control equipment or other mandated actions, as a result of violations of or liabilities under environmental, health and safety laws and regulations or otherwise.

These laws and regulations are complex, frequently change and have tended to become more stringent over time. There can be no assurance that the costs of complying with such laws and regulations, or future environmental, health and safety laws and regulations, will not increase. Such cost increases could have a negative impact on the results of our margins and results of operations and financial condition.

There can be no assurance that we will be at all times in compliance with applicable environmental and health and safety requirements, which may lead to the incurrence of material costs or liabilities in the future or impede our ability to obtain and maintain all licenses, consents or other permits necessary to operate our business. Similarly, there can be no assurance that we will not experience an environmental spill or accident or discover or otherwise become liable for environmental contamination in the future. We may incur significant expenditure in connection with the required remediation of past environmental conditions at both currently-owned and formerly-owned facilities. For example, the land on which we have begun to construct our proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom is a legacy industrial site with known asbestos contamination which will require environmental remediation. There can be no assurance that the ongoing and contractually agreed remediation measures that are currently being undertaken by the seller of the land will be successful and sufficient and that those remediation efforts, together with relevant environmental insurance policies, will fully protect us from having to incur any future expenditures in connection with further required remediation.

There can be no assurance that environmental pressure groups and similar organizations will not mount campaigns against us which, were they to occur, could have an adverse effect on our reputation.

Failure to maintain good health and safety practices may have an adverse effect on our business.

Our employees carry out relatively difficult and specialized tasks, and a serious incident affecting the health and safety of any of our employees could disrupt our operations and have a negative impact on our reputation. We may also be subject to fines or litigation if a health and safety incident occurs. Furthermore, disruption of operations caused by a major incident could have a material adverse effect on our business, results of operations and financial condition.

Our licenses may be suspended, amended or terminated prior to the end of their terms or may not be renewed.

Our licenses and permits required to conduct our business operations, including for the operation of CHP, could be revoked, withdrawn or amended by the relevant authorities under certain circumstances. For example, a license or permit could be revoked, withdrawn or amended if there is a subsequent change of facts or a relevant regulation, such permit is found to be contrary to the public interest, or it is deemed necessary to prevent severe harm to the common good.

Moreover, private individuals and the public have the right to comment upon the process, raise objections to proposed permits and initiate court proceedings to intervene and prevent the granting of requested permits. In addition, environmental organizations, residents or other third parties may raise objections to our current or proposed activities or file suits challenging our operations and the granting or existence of permits and licenses to conduct our operations.

The permitting rules are complex and may change over time, making our ability to comply with the applicable requirements more difficult or even impossible, thereby precluding continuing or future operations. Regulatory authorities exercise considerable discretion in the timing and scope of permit issuance. Requirements imposed by these authorities may be costly and time-consuming and may result in delays in the continuation of our operations.

If any of our licenses or permits is revoked, withdrawn or amended, or if we have difficulty renewing a license or permit, we may experience delays in our operations which could adversely impact our business, financial condition, results of operations and cash flows.

We are exposed to the particular risks related to our increasingly international operations.

Our operations have become increasingly international. In addition to our home market, Germany, we currently operate facilities in the Czech Republic, France, Italy, Poland and the United Kingdom. As a result, we are vulnerable to risks in these countries and to the particular risks inherent in international operations, including:

- increased difficulties in the collection of accounts receivable, including longer collection periods;

- inconsistent regulations and unexpected changes in legislation or regulatory requirements and increased difficulty and expense in hiring and dismissing employees; work stoppages, transport interruptions and difficulties in managing international operations;
- adverse tax consequences, including as a result of complex transfer pricing regulations; and
- adverse currency fluctuations or restrictions on the transfer of cash.

The occurrence of any of the foregoing could have a material adverse effect on our results of operations due to the related delays or increased costs in the production and delivery of products and services.

We are subject to antitrust and similar legislation in the jurisdictions in which we operate.

We are subject to a variety of antitrust and similar legislation in the jurisdictions in which we operate. In Germany as well as in some of our other markets, we have a market position that may make potential future acquisitions difficult and may limit our ability to expand by acquisition or merger, if we wished to do so.

In addition, we are subject to legislation in all the jurisdictions in which we operate relating to unfair competitive practices and similar behavior, both on an EU level and on a national level. There can be no assurance that we will not be subject to allegations of, or regulatory investigations or proceedings into, such practices or behavior. In the event that such allegations are made or investigations or proceedings are initiated (irrespective of merit), we may be required to devote significant management resources to our defense against such allegations. In the event that such allegations are proved, we may be subject to significant fines, damages awards and other expenses, any of which could have a material adverse effect on our business, results of operations and financial condition.

Our results may be adversely affected if we are unable to implement our strategy to optimize utilization of assets.

Our results of operations are materially influenced by the degree to which we are able to optimize the utilization of our assets in order to achieve the necessary production volumes to achieve our business plans. We cannot guarantee that we will be able to optimize the utilization of assets in accordance with our plans, or at all, due to, among other things, unforeseen disruptions which are beyond our control. For example, we continuously work to further optimize production of our paper machines PM1 and PM2. If we are not able to optimize the usage of our two paper mills and other production facilities, the expected return on our related investments may not be realized. Any other inability to optimize and sustain the capacity utilization of our production facilities or achieve cost efficiencies through improvements in production processes may have a material adverse effect on our margins and results of operations and financial condition.

Our business operations are capital intensive, and we may be required to make significant capital expenditures to maintain our competitive position.

The operation and expansion of our business requires substantial capital expenditures. In addition to our significant investment in PM2 in Eisenhüttenstadt, primarily between 2008 and 2010, we have ongoing capital expenditure requirements relating to, among other things, the modernization and maintenance of our existing production plants. Furthermore, we have incurred (and expect to continue to incur) significant capital expenditures in connection with the launch and ramp-up of our corrugated board production sites in Trzcinica, Poland (PW10), and Drizzona, Italy (PW11) and the ongoing establishment of our proposed corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom. In the short-term to mid-term, we intend to continue to focus our investment activities on further expanding our corrugated board production capacity, and we currently expect to establish up to four further corrugated board production sites in Central Europe between 2019 and 2021. In addition, we have also begun to actively pursue the realization of a potential further paper machine project (PM3). We currently expect to invest a total of approximately €375 million just in the potential paper machine project over a several year period, with initial expenditures (e.g. for purchasing the land and certain preliminary work) as early as 2018 or 2019. For further details on our proposed expansion projects and investment program, see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors affecting our Results of Operations—Expansion Projects and Investment Program*".

Our ability to expand our business and fund our ongoing operations depends on our ability to generate cash and access financing. In addition, our liquidity and capital requirements may increase if we decide to pursue further expansion projects or if we make future acquisitions. We may not generate sufficient cash flow or have access to sufficient funding to meet these requirements.

Further, we may require information technology enhancements in order to continue providing high-quality IT support for our production processes. Failure to implement such enhancements may result in reduced quality of processes and loss of orders and customers. If one or more of the aforementioned risks were to materialize, this could have a material adverse effect on our business, results of operations and financial condition.

Furthermore, even successful expansion (or acquisition) projects can have a negative impact on our profitability in the short-term. For example, our reduced profitability between 2009 and 2010 following the global financial and economic crisis coincided with the launch of production at our corrugated board production sites in Strykow, Poland (PW7) and Ellesmere Port, United Kingdom (PW8) and at our paper mill in Eisenhüttenstadt, Germany (PM2), which involved significant start-up and ramp-up costs. The related costs were largely expected and are normal in our industry, but their timing further exacerbated our financial condition. In addition, even in a positive market environment, it typically takes two to three years from the launch of a new corrugated board production site until the production site is fully utilized. For example, we launched our corrugated board production site in Strykow, Poland (PW7) in 2009, but the site only completed its ramp-up phase in 2012 and therefore, did not operate at a three-shift capacity for an entire year until 2013. Our corrugated board production site (PW9) in Plössberg, Germany commenced production in October 2015 and completed its ramp-up phase in 2017, while our corrugated board production site (PW10) in Trzcinica, Poland completed a very fast and successful ramp-up and will likely already operate at a full, three-shift capacity for an entire year for the first time in 2018. We expect our newest corrugated board production site (PW11) in Drizzona, Italy and our proposed new corrugated board production site in Ellesmere Port, United Kingdom as described above to also undergo ramp-up phases of different durations with a corresponding impact on our result of operations. Should we decide to pursue the potential further paper machine project (PM3), the related start-up and ramp-up costs and short-term to mid-term impact on our profitability would be proportionately higher, due to the much larger size, higher level of complexity and longer implementation timeframe of such a project, compared to the establishment of a new corrugated board production site. For our paper mill in Eisenhüttenstadt (PM2), for example, we executed some of the definitive agreements with our main project partners (including the related financing arrangements) as early as the summer of 2008, before starting initial ground works later that year. In addition, even though our paper mill in Eisenhüttenstadt (PM2) commenced operations in March 2010, it only completed its initial ramp-up phase in 2013. Since then, we have been continuing our efforts to further optimize our operations at our mill in Eisenhüttenstadt, which involves not only the optimization of the performance of PM2, but also the optimization of connected processes, including the operation of the CHP we acquired effective as of midnight on December 31, 2015.

The availability of, or any significant increase in, the cost of transportation represents a significant risk for our business.

Transportation plays an important part in our supply chain as we transport a majority of our products, mainly by truck and to a lesser extent by rail or ship, to our customers. Deliveries are generally made as full truck loads. In addition, most of the raw materials need to be transported to our production facilities and we also transport large rolls of containerboard from our two paper mills in Burg and Eisenhüttenstadt (both Germany) to our ten other corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom. We meet our freight and logistics requirements mainly through the use of external logistics companies and, to a much lesser extent, our own fleet of currently 59 trucks through which we carry out approximately 6.6% of our total transportation requirements. Due to the relatively large size and weight of our products compared to value, freight and logistics expenses play an important role in our business, and fluctuations in freight prices can have a significant impact on our profitability. In 2017, our freight expenses, which include freight for deliveries from our production plants or other stocks to customers as well as containerboard shipments from our two mills to our various corrugated board plants, amounted to a total of 61.7 million, or 7.7%, of our sales.

Any material disruption in or lack of availability of transportation or significant increases in fuel or energy prices, road tolls or demand driven market prices resulting in higher transportation costs, may have a material adverse effect on our margins and results of operations and financial condition. In addition, increased costs relating to vehicle emissions control requirements that have been or may be imposed in the future, particularly due to climate change related legislation, may also lead to such effects on our margins and results of operations and financial condition.

We depend on the uninterrupted operations of our information and communication technology.

The operation of our production plants and our sales and service activities depend on the uninterrupted operation of complex and sophisticated computer, telecommunication and data processing systems. Between each step along our internal value chain and our production processes, we must coordinate and monitor complex logistics processes to ensure the efficient flow of materials and products. In addition, in 2017, approximately 69% of purchase orders for corrugated board from our Prowell customers were received electronically, and all material core processes, which must be coordinated to ensure the smooth and efficient operation of our production processes, are controlled by our proprietary core ERP system, WEPAFORM. WEPAFORM implements our internal know-how in the form of best practices and rules of conduct. The functionality of WEPAFORM covers all our core processes, including order processing, raw material planning, production planning, production control as well as warehousing, shipment and invoicing. See also "*Business—Information Technology and Process Management*".

Computer and data processing systems and related information technology infrastructure (data center, hardware and wide and local area networks) are generally exposed to the risk of disturbances, damage, electricity failures, computer viruses,

fire, other disasters, hacker attacks, unauthorized or improper access or abuse by employees and similar events. In addition, we rely on a small number of key employees within our IT department who are familiar with WEPAFORM and have been involved in its development. Disruptions to operations or interruptions in operations involving key software applications (in particular, WEPAFORM) and/or our IT hardware have occurred, in individual cases, in the past and may occur in the future. Although administration and production networks are separated, such disruptions or interruptions could have a material adverse effect on our ability to maintain our core processes, could lead to production downtime and result in significant lost sales. Some of the software products we use are hosted by a third party off site, in which case we depend on the hosting company's infrastructure, and any interruption, disruption or security breaches at the hosting company's data center may have an adverse effect on our operations. If one or more of these risks were to materialize, this could have a material adverse effect on our business, results of operations and financial condition.

We are subject to risks from legal proceedings.

We are involved in litigation in the ordinary course of business and could become involved in additional legal and arbitration disputes in the future, which may involve substantial claims for damages or other payments. The outcome of pending or potential future proceedings is difficult to predict with any certainty. In the event of a negative outcome of any material legal or arbitration proceeding, whether based on a judgment or a settlement agreement, we could be obligated to make substantial payments. In addition, the costs related to litigation and arbitration proceedings may be significant. The realization of any of these risks could have a material adverse effect on our business, results of operations and financial condition.

Our insurance coverage may not be adequate to cover all the risks we may face and if we were no longer covered by our existing insurance, it may be difficult to obtain replacement insurance on acceptable terms or at all.

Although we maintain insurance policies, including fire, explosion, radiation, electrical damage, machinery breakdown, fuel or power shortages, third party liability insurance, transport insurance, computer insurance and directors' and officers' insurance, not all risks are insured or insurable (and may have significant deductibles on policies). Accordingly, our insurance policies do not provide coverage for all losses related to our business, and the occurrence of losses, liabilities or damage not covered by such insurance policies could have a material adverse effect on our results of operations and financial condition. Due to variable insurance market conditions, there can be no assurance that the insurance that we carry will continue to be available, will be available at economically acceptable premiums or will be adequate to cover any resulting liability, and we may be required to enforce insurance coverage or pay high deductibles. In some cases, coverage is not available or is considered too expensive relative to the perceived risk. If we experience a loss in the future, the proceeds of the applicable insurance policies, if any, may not be adequate to cover replacement costs, lost sales, increased expenses and/or liabilities to third parties. This could have a material adverse effect on our results of operations and financial condition.

Our risk management and internal controls may not prevent or detect violations of law.

Our existing compliance processes and controls may not be sufficient to prevent or detect inadequate practices, fraud and violations of law by our intermediaries and employees. Due to our business operations in multiple countries in Europe, we are subject to a number of laws and regulations in various countries. These include, among others, regulations concerning competition and antitrust law, international trade and customs, licensing and permits, commercial intellectual property and its enforcement, warranty and product liability, environmental, building and zoning law, energy law, hazardous substances and chemicals law, labor and work protection law, tax law and regulations related to purchasing and acquisitions.

In the event that any intermediaries, consultants, sales agents or employees with whom we cooperate either receive or grant inappropriate benefits or generally use corrupt, fraudulent or other unfair business practices, we could be confronted with legal sanctions, penalties and loss of orders and harm to our reputation. Especially given our increasingly international profile, the size and the extent of our cooperation with intermediaries, consultants, sales agents and employees, our internal controls and procedures, policies and our risk management may not be adequate to identify or prevent such practices, which could have a material adverse effect on our results of operations and financial condition.

We may have to repay investment grants and subsidies, or previously awarded investment grants may not be disbursed in part or at all.

A part of our investment requirements for developing and expanding our production capacity is covered by public aid, such as investment grants, subsidies, loans at favorable conditions or tax reductions or exemptions, both in Germany and abroad. The decisions on granting public aid received by us contain various conditions such as regarding the creation of jobs, the total investment amount or the duration of our investment. If these conditions are not fulfilled during the commitment period, which generally exceeds the specified investment period, this could result in a repayment claim by

the relevant authorities for the public aid received by us. During the commitment period, such conditions may no longer be satisfied and we could be subsequently exposed to considerable repayment and interest claims. This could have a material and adverse effect on our business, financial condition and results of operations.

Pending and future tax audits within our Group and changes in fiscal regulations could lead to additional tax liabilities.

We are subject to routine tax audits by local tax authorities. Tax audits in Germany for the Group (excluding Propower GmbH) for corporate income tax (*Körperschaftsteuer*), trade tax (*Gewerbesteuer*) and VAT (*Umsatzsteuer*) relating to the periods up to and including the financial year ended December 31, 2015 were completed in January 2017. The higher tax assessments were already reflected as provisions for taxes in our balance sheet as of December 31, 2016 and were paid after the relevant assessments were amended in April 2017. Tax audits for later periods not yet subject to a tax audit or tax audits in other countries may lead to higher tax assessments in the future. For example, we operate a number of tax groups (*Organschaften*) in Germany and we are therefore exposed to the risk of a challenge of the existence and due operation of tax groups in the course of future tax audits. A non-recognition of our tax groups could lead to additional tax liabilities.

Tax audits for Propower GmbH for the years 2010-2012 are currently ongoing. For more detail on potential related risks, see "*—Our due diligence with regard to Propower GmbH has revealed certain tax risks that may not be fully covered by the relevant provisions of the CHP Purchase Agreement*" below.

Any additional tax payments could have a material adverse effect on our margins and results of operations and financial condition. In addition, changes in fiscal regulations or the interpretation of tax laws by the courts or the tax authorities may also have a material adverse effect on our business.

The international scope of our operations and our corporate and financing structure may expose us to potentially adverse tax consequences.

We are subject to taxation in, and to the tax laws and regulations of, multiple jurisdictions as a result of the international scope of our operations and our corporate and financing structure. We are also subject to intercompany pricing laws, including those relating to the flow of funds among our companies pursuant to, for example, purchase agreements or other arrangements. Adverse developments in these laws or regulations, or any change in position by the relevant authority regarding the application, administration or interpretation of these laws or regulations in any applicable jurisdiction, could adversely affect our business, financial condition and results of operations.

In addition, the tax authorities in any applicable jurisdiction may disagree with the positions we have taken or intend to take regarding the tax treatment or characterization of any of our transactions, including the tax treatment or characterization of our indebtedness, including the the Senior Secured Notes, payments or other distributions to our shareholders, existing and future intercompany loans and guarantees or the deduction of interest expenses. We could also fail, whether inadvertently or through reasons beyond our control, to comply with tax laws and regulations relating to the tax treatment of various of our financing arrangements, which could result in unfavorable tax treatment for such arrangements. If any applicable tax authorities were to successfully challenge the tax treatment or characterization of any of our intercompany loans or transactions, it could result in the disallowance of deductions, a limitation on our ability to deduct interest expenses, the imposition of withholding taxes, the application of significant penalties and accrued interest on intercompany loans or internal deemed transfers, the application of significant penalties and accrued interest or other consequences that could have a material adverse effect on our business, financial condition and results of operations.

Due to the forfeiture of loss carry forwards under German tax laws, we may be unable to use loss carry forwards to set off future gains.

Tax loss carry forwards and unused losses of the current financial year are forfeited in full if more than 50% of the subscribed capital, membership rights, participation rights or voting rights in the Company are transferred, directly or indirectly, to an acquirer or related parties of such acquirer (or a group of acquirers with common interests) within a period of five years or in case of comparable measures (harmful acquisition). As regards transfers of more than 25% and up to 50% under the same prerequisites, tax loss carry forwards and unused losses of the current financial year are forfeited on a *pro rata* basis. The same applies for interest carry forwards. If and to the extent the tax loss carry forwards, interest carry forwards and unused losses of the current financial year are covered by the built in gains of the loss making company's business assets that are subject to domestic taxation a forfeiture of such items would generally not apply. However, according to the opinion of the relevant German fiscal authorities, the so-called "hidden reserve clause" may not be available to us due to our existing tax groups (*Organschaften*).

In its ruling dated March 29, 2017, the German Federal Constitutional Court (*Bundesverfassungsgericht – BVerfG*) declared parts of the provisions on the forfeiture of losses as described above unconstitutional. The ruling affects certain harmful acquisitions (*schädlicher Beteiligungserwerb*) to the extent they stipulate a partial forfeiture of a company's current and carried-forward tax losses upon a transfer of more than 25% but less than 50% of its shares in the years from 2008 until and including 2015. According to the court's ruling, the German legislator is required to draft new regulations until December 31, 2018, which would apply retroactively to the respective periods. The ruling of the Federal Constitutional Court does not indicate whether or not the provisions on the forfeiture of losses are compliant with the German Constitution to the extent more than 50% of the subscribed capital, membership rights, participation rights or voting rights are transferred. Further cases challenging the loss forfeiture rules to the extent they provide for such full forfeiture as well as in their version as effective since 2016 are currently pending with the Federal Fiscal Court (*Bundesfinanzhof – BFH*) and the German Federal Constitutional Court. Therefore, the impact of the loss forfeiture rules on unutilized losses is currently unclear.

Due to restrictions of the deduction of interest expenses or forfeiture of interest carry forwards under German tax laws, we may be unable to fully deduct interest expenses on our financial liabilities.

Interest payments on the Senior Secured Notes, the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities and on our other debt may not be fully deductible for tax purposes, which could adversely affect our financial results. Subject to certain prerequisites, the German interest barrier rules (*Zinsschranke*) impose certain restrictions on the deductibility of interest for tax purposes. Since 2008, the German interest barrier rules in general have disallowed the deduction of net interest expenses exceeding 30% of tax adjusted EBITDA. For purposes of the interest barrier rules, all businesses belonging to the same tax group (*Organschaft*) for corporate income and trade tax purposes, *i.e.*, the Company and certain Guarantors, are treated as one single business. Such consolidation is, *inter alia*, relevant for the calculation of the tax adjusted EBITDA.

There are certain exemptions from the restrictions of the German interest barrier rules allowing for a tax deduction of the entire annual interest expenses, which, however, may not be available to the Company. To the extent our net interest expenses exceed 30% of our tax adjusted EBITDA in any given year, we may therefore not be able to deduct the excess in our net interest expense in calculating our taxable earnings for the relevant year. This may have an adverse effect on our liquidity and financial condition and on our ability to meet our obligations under the Senior Secured Notes and the Guarantees.

Any non-deductible amount of interest expenses exceeding the threshold of 30% is carried forward and may, subject to the interest barrier rules, be deductible in future fiscal years. In the past, our interest expenses were not entirely deductible. Accordingly, we currently have an interest carry forward (*Zinsvortrag*) from previous years. An interest carry forward may be forfeited in part or in full in connection with certain measures, such as a change of the ownership structure as described in the preceding risk factor "*—Due to the forfeiture of loss carry forwards under German tax laws, we may be unable to use loss carry forwards to set off future gains*". Such forfeiture may have a material adverse effect on our margins and results of operations and financial condition.

If the European Monetary Union ceases to exist or one or more countries leave the European Monetary Union, our margins and results of operations and financial condition may be materially adversely affected.

In recent years, economic events affecting the European economies, have raised a number of questions regarding the overall stability of the European Monetary Union. Despite measures taken by countries in the European Monetary Union and the European Central Bank to alleviate credit risk, concerns persist with respect to the ability of certain European Monetary Union countries to meet future financial obligations, the overall stability of the euro and the suitability of the euro as a single currency given the diverse economic and political circumstances in individual European Monetary Union member states. The economic outlook is adversely affected by the risk that one or more European Monetary Union countries could come under increasing pressure to leave the European Monetary Union, or that the euro could cease to be the single currency of the European Monetary Union. The legal and contractual consequences of such a development for the business of the Group and for holders of the Senior Secured Notes, would be determined by applicable laws in effect at such time. Any of these developments, or a perception that any of these developments may be likely to occur, could have a material adverse effect on the economic development of the affected countries or lead to economic recession or depression that could jeopardize the stability of financial markets or the overall financial and monetary system. This, in turn, may have a material adverse effect on our margins and results of operations and financial condition.

The result of the United Kingdom's withdrawal from the European Union may have a negative effect on our business.

The United Kingdom's initiation of the process to withdraw from the European Union pursuant to Article 50 of the Treaty on European Union following the national referendum in June 2016 ("**Brexit**"), has created significant uncertainty about the future relationship between the United Kingdom, one of our current markets, and the EU and its remaining member states, which may constitute an additional risk for the financial markets and the European economy. A downturn

in the European economy could have adverse effects on our business in the markets in which we operate. In addition, with the establishment of our proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom, we will substantially increase our presence in the United Kingdom (a market in which we have historically been able to achieve above average EBITDA margins), which increases our exposure to any negative outcomes of Brexit. In 2017, sales in the United Kingdom accounted for 7% of sales by volume. Possible negative outcomes resulting from Brexit include: significantly disrupted trade between the United Kingdom and the EU; political and economic instability in other countries of the EU, which covers the majority of our markets; and instability in the global financial and foreign exchange markets, including volatility in the value of the euro and the pound sterling. The depreciation of the pound sterling against the euro has caused, and may continue to cause, an increase in the price of goods in the UK that are sourced from the EU. Therefore, Brexit might also affect our ability to maintain the current level of sales, as expressed in euros, in the United Kingdom. Given the lack of comparable precedent, it is unclear what financial, trade and legal implications Brexit will have and whether, and to what extent, our business might be affected. Therefore, Brexit could have a material adverse effect on our business, financial condition and results of operations.

The interests of our controlling shareholder may be inconsistent with our interests and/or the interests of holders of the Senior Secured Notes.

Jürgen Heindl, our chief executive officer and founding shareholder, controls JH-Holding, our controlling shareholder. The interests of our controlling shareholder, in certain circumstances, may conflict with our interests or with your interests as holders of the Senior Secured Notes. Mr. Heindl has, directly or indirectly, the power, among other things, to affect our legal and capital structure and our day-to-day operations, the payment of dividends, asset sales and other significant corporate transactions as well as the ability to elect and change our management and to approve any other changes to our operations. The interests of our controlling shareholder could conflict with your interests as holders of the Senior Secured Notes, particularly if we encounter financial difficulties or are unable to pay our debts when due, including under the Senior Secured Notes. Mr. Heindl and our controlling shareholder could also have an interest in pursuing acquisitions, joint ventures, divestitures, financings, dividend distributions or other transactions that, in their judgment, could enhance their investments although such transactions might involve risks to the holders of the Senior Secured Notes.

The information available to market analysts varies in its degree of comparability.

This annual report contains information regarding market positions, market shares, growth rates and other industry data pertaining to our business drawn from reports and other materials compiled by independent professional organizations and analysts. This includes reports prepared by RISI and Vision Hunters. The analysts compiling these reports base their estimates and conclusions on a variety of sources, some of which may be more comparable than others. These sources may include:

- official information published by government agencies,
- reports published by exchange listed companies with public reporting obligations,
- information offered voluntarily by privately held companies, and
- analysts' own estimates based on information obtained in conversations with competitors, suppliers, customers and other market participants.

Although our industry uses these reports as a standard source of market data, we cannot determine the level of reliability and comparability of the data in the reports. The analysts' estimates and conclusions can vary, and have in the past varied, materially from the true figures and as a result their reports can under or overstate market size, market share, growth rates and other important industry data. Accordingly, you should use caution in using these estimates and any information regarding market position or shares contained in this annual report and you should not place undue reliance on such estimates or information.

We may not be successful in operating the CHP ourselves in the long-run.

Under the former contracting arrangement with EnBW, we were already closely involved in the operation of the CHP and already bore a significant portion of the economic risks associated with the operation of the CHP. However, we did not have any experience operating the CHP ourselves when we started to do so in 2016. Upon completion of the CHP Acquisition, effective as of December 31, 2015, we were directly responsible for a number of aspects of the operation of the CHP that were previously performed by EnBW, and we are now bearing certain additional risks associated with the ownership and operation of the CHP that were previously being borne by EnBW. In particular, we became directly responsible for, and will bear all risks related to, the ownership and day-to-day operation of the CHP, which includes the risk of any further unexpected repair and maintenance costs, the risk of any further significant unscheduled or longer than scheduled shutdowns of the CHP, the operational risks associated with the disposal of the ash generated by the CHP

(i.e., that we are unable to procure the proper disposal of the ash and may therefore be forced to shut down the CHP) as well as certain other operational and regulatory risks. See also "*—We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The CHP Acquisition*".

Our ability to successfully operate the CHP depends on our ability to attract and retain experienced personnel.

Our ability to successfully operate the CHP depends, in part, on certain key personnel and on our ability to attract and retain a highly skilled workforce for the management and operation of the CHP over the long term. Such employees with appropriate knowledge and experience are scarce, and the employment market for such personnel is very competitive. As a result, we might not be able to retain key CHP employees with specialized knowledge or to attract and retain a highly-skilled workforce for the CHP. Any of these factors could have a material adverse effect on our business, results of operations and financial condition and our ability to fulfill our obligations under the Senior Secured Notes.

The CHP employees are represented by a works council and wage discussions between us and representatives of the CHP employees may result in increased personnel expenses in the future.

Other than our other employees in Germany, the CHP employees are represented by a works council (*Betriebsrat*). Future wage negotiations may result in higher personnel expenses for the operation of the CHP compared to the historical personnel expenses for the CHP employees.

Our due diligence with regard to Propower GmbH has revealed certain tax risks that may not be fully covered by the relevant provisions of the CHP Purchase Agreement

Our tax due diligence in connection with the CHP Acquisition revealed certain tax risks with regard to Propower GmbH, in particular the potential non-recognition of a tax group (*Organschaft*) between Propower GmbH and EnBW. The German tax authorities have challenged the existence of the tax group between Propower GmbH and EnBW in connection with the ongoing tax audits for Propower GmbH for the years 2010-2012. EnBW has recently informed us that it has now decided to accept the non-recognition of a tax group by the German tax authorities and that it proposes to inform the German tax authorities accordingly. As a result, we expect the German tax authorities to quickly complete the relevant tax audits and to issue a related tax assessment notice to Propower GmbH, which we expect could result in tax liabilities of up to approximately €19 million. The CHP Purchase Agreement contains a number of provisions that are intended to impose the related economic consequences on EnBW and the sellers. In particular, under the CHP Purchase Agreement, EnBW has agreed to fully indemnify Propower GmbH for any losses or liabilities it may incur as a result of the tax authorities challenging the existence of a tax group. However, there can be no guarantee that the actual tax liabilities will not exceed the amounts we currently expect, that EnBW will meet its indemnification obligations or that the provisions of the CHP Purchase Agreement will fully cover any tax risks related to the CHP Acquisition.

We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition.

The operation of the CHP may be subject to risks or problems that we may not be aware of, which may not have been detected or which have not been disclosed to us in the due diligence process or derived from the financial information of Propower GmbH and that may only emerge over time as we continue to operate the CHP ourselves. The CHP purchase agreement provides us with limited protection against the existence of such problems or the materialization of any such risks. The existence of any such risks or problems could lead to significant additional costs in operating the CHP, require us to incur significant costs for repairs or to make significant additional investments into the CHP in an attempt to remedy such risks or problems. For example, in connection with a scheduled maintenance shutdown of the CHP in the third quarter of 2016, we discovered certain technical faults within the CHP that we were not previously aware of. Because of our long-term economic interest in the efficient and uninterrupted (except for necessary maintenance shutdowns we schedule on a regular basis) operation of the CHP, we decided to significantly extend the originally scheduled maintenance shutdown period to allow us to make certain repairs and replace certain faulty components. This decision led to a significantly longer than scheduled maintenance shutdown of the CHP in the third and fourth quarters of 2016 and caused us to incur €16.0 million in "items of exceptional size or incidence", including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales in 2016. We may learn additional information about the CHP that adversely affects us in the future, such as unknown or contingent liabilities, technical problems and issues relating to compliance with applicable laws. Any such liabilities or problems, individually or in the aggregate, could prevent us from realizing the expected benefits from the CHP Acquisition and could have a material adverse effect on our business, financial condition and results of operations.

Our ability to supply electricity to the public power grid will be dependent upon transmission and distribution systems and our reliance on third parties.

The sale and supply of electricity produced by the CHP to the public grid is dependent upon the infrastructure of the local power grid systems. We have no control over the operation of these power grid systems and we must rely on independent third-party power grid system operators. Different companies operate the transmission grids and the distribution grids in Germany. The transmission grid in the region where the CHP is located is operated by E.DIS AG and there are a number of different operators of distribution grids.

Any failure of such power grid systems or reduction of available capacity, including as a result of grid congestion, natural disasters, insufficient maintenance or inadequate development, could prevent us from selling and supplying electricity from the CHP. In Germany, grid congestion has recently caused operational issues for certain power generation plants, as the increase of co-generation and renewable energy in Germany that has a priority feed-in right to German power distribution networks has led to a reduction of available grid capacity for conventional power plants. In addition, as these power grid systems are operated by independent third parties who will not be our contractual partners, we will not carry insurance in this regard which would compensate us in the event of an operational failure. Additionally, under the German Energy Industry Act (*Energiewirtschaftsgesetz*—EnWG), network operators are responsible for the security and reliability of the power supply system and required to balance differences between generation and consumption. Therefore, if the safety or reliability of the transmission system is endangered, particularly in the case of grid bottlenecks, network operators are required to take remedial grid-related or market-related action, including changes to current electricity feed-in, transit and output. In doing so, under the EnWG and the German Renewable Energies Act *(Erneuerbare Energien Gesetz*—EEG*)*, network operators may choose to disconnect power plants from the grid temporarily to reduce or prevent congestion. In any such case, conventional power plants would be the first to be disconnected, followed by co-generation plants and renewable power plants. We would not be entitled to compensation by the network operator for the losses incurred as a consequence of such measures. Due to the nuclear power phase-out and as renewable power generation and cogeneration increases rapidly in Germany and the capacity of affected transmission and distribution grids is often not expanded sufficiently to accommodate this increase, there is an increasing risk of grid congestion and subsequent regulation of feed-in power capacity of conventional power plants during certain hours, including brown coal-fired power plants.

Any failure of the power grids or a disconnection of the CHP from the power grid, e.g., due to congestion and respective measures by the network operator, could negatively impact our electricity sales, and could have a material adverse effect on our business, financial condition, results of operations and cash flows.

As a result of the CHP Acquisition, we may become subject to the risks associated with EU regulation of energy market mechanisms, including potential cash margining requirements as well as transparency and reporting obligations.

The electricity produced by the CHP is being sold directly to the public electricity grid. Upon completion of the CHP Acquisition, we may therefore need to begin to trade on the financial and energy wholesale markets of Europe. EU regulations, such as the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT), the Markets in Financial Instruments Directive (MiFID) and the European Market Infrastructure Regulation (EMIR) require the implementation of strict rules for wholesale commodity trading, including potential cash margining requirements for all over-the-counter deals, transparency and reporting obligations and the central clearing of transactions involving certain energy derivatives. These requirements could result in significant additional administrative burdens and costs for us. Changes to credit and cash settlement requirements could require us to post cash collateral to cover mark-to-market fluctuations in the margin of any wholesale forward sales of electricity. As a result, EU regulation of energy market mechanisms could have a material adverse effect on our business, financial condition, results of operations and cash flows.

As a result of the CHP Acquisition, we are directly subject to a wide range of laws and regulations specifically governing the German energy sector and the disposal of waste, which are subject to constant change.

As a result of the CHP Acquisition, we are directly subject to a wide range of laws and regulations specifically governing the German energy sector and the disposal of waste. See "*Business—Regulatory Environment—Regulation governing the Operation of the CHP*".

The operating costs and results of operations of Propower GmbH and the CHP will be significantly impacted by the relevant regulatory framework for the electricity sector both on the European and the national level. In the past years, this regulatory framework has been subject to substantial change and it will continue to be subject to change in the future. Such change is not only due to legislative reforms, but is also prompted by administrative and judicial decisions. See also "*—Our energy costs, in particular in Germany, are dependent on the regulatory framework for the electricity sector, which is subject to constant change and, in addition, we may face material cost increases if we lose certain financial*

privileges which we benefit from in Germany with regard to the Renewable Energies Act (Erneuerbare Energien Gesetz, "EEG") surcharge and network access fees and other fees".

Any such changes, in particular any loss or significant reduction of certain financial privileges we currently enjoy under the German Renewable Energies Act or the German Ordinance on Electricity Network Access Fees, could have a material adverse effect on our business, financial condition, results of operations and cash flows. As another example, the fluidized bed boiler (*Wirbelschichtkessel*) of the CHP for the thermal utilization of refuse-derived fuels currently benefits from an exemption under the CO_2 emissions trading scheme under the German Greenhouse Gas Emission Trading Act *(Treibhausgas-Emissionshandelsgesetz, "**TEHG**").* A partial or outright loss of this exemption, as a result of either the CHP Acquisition or legal changes in the future, would result in significant additional administrative expenses as well as costs for purchasing CO_2 emission certificates. Any further tightening of general emission limits under relevant EU or German laws and regulations may require us to incur significant capital expenditure and ensure continued compliance by the CHP with all relevant laws and regulations. Since the CHP primarily uses refuse-derived fuels (including processed household and commercial waste), the operation of the CHP is particularly tightly regulated and is subject to a high level of regulatory scrutiny. Any breach of emissions limits under applicable laws and regulations, for example, due to equipment malfunction or a failure of the procedures for screening the waste before it is being incinerated, may force us to temporarily shut down the CHP or cause the relevant regulators to impose administrative sanctions and/or modify the operating permits for the CHP, which could result in significant costs.

In addition, the reduction or elimination of certain energy-related tax credits and exemptions or other changes in tax laws, in particular under the German Electricity Tax Act (*Stromsteuergesetz*—StromStG) and the German Energy Tax Act (*Energiesteuergesetz*—Energie StG), could have a material adverse effect on our business, financial condition, results of operations and cash flows. Finally, we may be adversely affected by any regulatory changes that may favor recycling over the thermal utilization of the refuse-derived fuels used in the operation of the CHP. For example, certain counties (*Landkreise*) in which one of our suppliers of refuse-derived fuels operates have recently adopted a new scheme for the collection of certain recyclables and organic waste. As a result of this change, other regulatory changes or similar developments in other regions, the amount and quality of household waste our supplier will be able to collect will likely decrease which will make it more difficult for our supplier to supply us with the agreed amount of refuse-derived fuels under the supply agreement, it may become more difficult to obtain the required quality and/or quantities of refuse-derived fuels to ensure the operation of the CHP in the future and/or the waste disposal fees we are able to charge for the thermal utilization of the refuse-derived fuels may decrease, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Furthermore, we are subject to various compliance, reporting and audit requirements under applicable laws and regulations, which require us to incur additional costs, including for the services of external advisers. Under the German Energy Services Act (EDLG), for example, certain larger companies are required to carry out an energy audit, unless they have implemented an energy management system (EnMS). Since the CHP has implemented an EnMS, it is currently exempt from the energy audit requirement. However, the requirements of the EDLG also apply to current members of the Group and the Company as well as certain of its subsidiaries will still be required to carry out an energy audit under the EDLG. Failure to comply with these and other requirements and any relevant laws or regulations could also expose us to fines. *See "Business—Regulatory Environment—Regulation governing the Operation of the CHP—Energy Services Act (EDLG)"*.

RISKS RELATED TO OUR STRUCTURE AND FINANCIAL POSITION

Our debt agreements contain customary financial and restrictive covenants that limit our operating flexibility.

The conditions of issue for the Senior Secured Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and the conditions of issue for the New Notes contain, or will contain, covenants significantly restricting our ability to, among other things:

- incur or guarantee additional indebtedness and issue certain preferred stock,
- create or incur liens,
- prepay or redeem subordinated debt or equity,
- make certain restricted payments and certain investments or sell or transfer certain assets,
- engage in certain transactions with affiliates or subsidiaries,
- create encumbrances or restrictions on the payment of dividends or other distributions, loans or advances to, and on the disposal, transfer or lease of assets by subsidiaries,

- sell, lease or transfer certain assets, including capital stock of subsidiaries,
- consolidate or merge with other entities, and
- impair the security interest for the benefit of the holders of the Senior Secured Notes, respectively.

In addition, the Super Senior Revolving Credit Facility contains a financial covenant as described under "*Description of Certain Financing Arrangements—Amended and Restated Super Senior Revolving Credit Facility*".

Any future debt agreements that we enter into may have covenants that are even more restrictive. The requirement that we comply with these and any future provisions may materially adversely affect our ability to react to changes in market conditions, take advantage of business opportunities we believe to be desirable, obtain future financing, fund needed capital expenditures, or withstand a continuing or future downturn in our business.

If we are unable to comply with the financial and restrictive covenants included in the the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities, the conditions of issue for the Senior Secured Notes or any future debt agreements, there could be a default under such agreements, which could result in an acceleration of repayment.

As described in the preceding risk factor, the conditions of issue for the Senior Secured Notes, the Super Senior Revolving Credit Facility and the Existing Senior Secured Facilities contain, and any future debt agreements we enter into may contain, certain financial and restrictive covenants. Our ability to comply with these covenants, including meeting financial ratios and tests, depends on a number of factors, some of which may be beyond our control, such as a deterioration of the industry and markets in which we operate or a deviation from the assumptions contained in our business plan. As a result, we may be unable to comply with our financial and restrictive covenants, and any failure may materially adversely affect our margins and results of operations and financial condition.

The breach of a financial or other covenant or our failure to meet any of our obligations under any of the agreements governing our debt may result in a default under such agreements, which in turn could result in a number of adverse consequences including, prohibiting us from drawing additional funds under credit facilities, significant increases in interest rates and other financing costs, the acceleration of all outstanding amounts under such agreements requiring us to immediately repay the related debt in whole or in part, and/or the commencement of foreclosure or other enforcement actions against any of our assets securing such debt. In addition, any default may expose us to requests by our suppliers for advance payments for deliveries and a reduction or cancellation by credit insurers of their commitments. Defaults may also trigger cross-default and cross-acceleration clauses contained in our other debt agreements, including the conditions of issue for the Senior Secured Notes, and our liquid funds and short-term cash flow may be insufficient to service any of the debts in the circumstances described above. Accordingly, any failure by us to service our debts may have a materially adverse effect on our ability to satisfy our obligations, including under the Senior Secured Notes and the Guarantees.

Our substantial leverage may make it difficult for us to operate our business.

We are, and expect to continue to be, highly leveraged and have significant debt service obligations and our leverage is likely to increase further. See "*Description of Certain Financing Arrangements*", "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" and "*Selected Financial and Other Information*".

Our significant leverage could have important consequences to the Holders, including:

- making it more difficult for us to satisfy our obligations with respect to the Senior Secured Notes and our other debt and liabilities;
- increasing our vulnerability to, and reducing our flexibility to respond to, general adverse economic and industry conditions;
- requiring the dedication of a substantial portion of our cash flow from operations to the payment of principal of, and interest on, our indebtedness, thereby reducing the availability of such cash flow to fund working capital, capital expenditures, acquisitions, joint ventures, product research and development, or other general corporate purposes;
- restricting us from pursuing acquisitions or exploiting business opportunities;
- limiting our flexibility in planning for, or reacting to, changes in our business, the competitive environment and the industry in which we operate;

- negatively impacting credit terms with our suppliers and other creditors;
- exposing us to increases in interest rates with respect to our floating rate debt instruments, such as the Super Senior Revolving Credit Facility, the Senior Secured Floating Rate Notes and the Senior Secured GBP Facility;
- placing us at a competitive disadvantage compared to our competitors that are not as highly leveraged; and
- limiting our ability to obtain additional financing to fund future operations, capital expenditures, business opportunities, acquisitions and other general corporate purposes and increasing the cost of any future borrowings.

Any of these or other consequences or events could have a material adverse effect on our margins and results of operations and financial condition, which in turn, could have a material adverse effect on our ability to satisfy our obligations, including under the Senior Secured Notes and the Guarantees.

Furthermore, we may incur substantial additional indebtedness in the future. Although our Super Senior Revolving Credit Facility and the conditions of issue for the Senior Secured Notes contain restrictions on the incurrence of additional indebtedness, the restrictions are subject to a number of significant qualifications and exceptions and, under certain circumstances, the amount of indebtedness that could be incurred in compliance with these restrictions could be substantial. In addition, under the "*Limitation on Restricted Payments*" covenant in each of the conditions of issue for the Senior Secured Notes and the Super Senior Revolving Credit Facility we are permitted to make significant dividend payments and other distributions to JH-Holding, including unlimited "Restricted PIK Interest Payments", which could also increase our leverage. To the extent we become even more leveraged or incur additional obligations, the risks described above will intensify.

The Senior Secured Floating Rate Notes and borrowings under our Super Senior Revolving Credit Facility and Senior Secured GBP Facility will bear interest at floating rates that could rise significantly, increasing our interest cost and debt and reducing our cash flow.

A substantial part of our indebtedness, including the Senior Secured Floating Rate Notes and potential future borrowings under the Super Senior Revolving Credit Facility and the Senior Secured GBP Facility, will be at variable rates of interest, which could rise significantly in the future. Although we may enter into and maintain certain hedging arrangements designed to fix a portion of these rates, there can be no assurances that hedging will continue to be available on commercially reasonable terms. Hedging itself carries certain risks including that we may need to pay a significant amount (including costs) to terminate any hedging arrangements. If interest rates rise in the future, our interest expense associated with any variable rate obligations that are not hedged would increase, even though the amounts borrowed would remain the same, reducing cash flow available to fund future operations, capital expenditures, business opportunities, acquisitions and other general corporate purposes, including satisfying our debt service obligations, including under the Senior Secured Notes and the Guarantees. Please also see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Quantitative and Qualitative Disclosures about Market Risk—Interest rate risk*".

Changes in, or uncertainty relating to, the EURIBOR, LIBOR, WIBOR, PRIBOR or BUBOR calculation process may adversely affect the interest we pay on our Super Senior Revolving Credit Facility, our Senior Secured GBP Facility and the Senior Secured Floating Rate Notes.

The Super Senior Revolving Credit Facility will bear interest at interest rates based on EURIBOR, LIBOR, WIBOR, PRIBOR or BUBOR, as applicable, the Senior Secured GBP Facility will bear interest at interest rates based on LIBOR and the Senior Secured Floating Rate Notes will bear interest at interest rates based on EURIBOR. Following allegations of manipulation of LIBOR, regulators and law enforcement agencies from a number of governments and the European Union are conducting investigations into whether the banks that contribute data in connection with the calculation of daily EURIBOR may have been manipulating or attempting to manipulate EURIBOR. Actions by EURIBOR-EBF (the association setting the regulatory framework for the calculation of EURIBOR), other regulators or law enforcement agencies could result in changes to the manner in which EURIBOR, WIBOR, PRIBOR or BUBOR is determined. Any such change, as well as manipulative practices or the cessation thereof, may result in a sudden or prolonged increase or decrease in reported EURIBOR, WIBOR, PRIBOR or BUBOR, which could have an adverse impact on the interest we pay on borrowings under the Super Senior Revolving Credit Facility, the Senior Secured GBP Facility and the Senior Secured Floating Rate Notes. To the extent that interest rates were to increase significantly, our interest expense could correspondingly increase, thereby reducing our cash flow.

We require a significant amount of cash to service our debt, and our ability to generate sufficient cash depends on factors that may be beyond our control.

Our ability to service and refinance our debt and to fund future operations and capital expenditures is highly dependent on our future operating performance and our ability to generate sufficient cash flow. To a significant degree, our future

operating performance and ability to generate cash flows is, in turn, dependent on various general economic, financial, competitive, market, legislative, regulatory and other factors which are outside our control. Due to any of these factors, we may be unable to generate sufficient cash flows from our operating activities, anticipated sales growth, cost saving or operational efficiency improvements, and any future debt or equity financing may not be available to us in amounts which would enable us to pay the principal premium and interest of our indebtedness, including the Senior Secured Notes.

To the extent our cash flow from operating activities is insufficient to meet our liquidity needs and service our debt, we would have to seek additional debt or equity financing. In addition, our subsidiaries may be restricted in certain jurisdictions within which they operate from paying dividends or making other distributions to us. If our future cash flows from operating activities and other capital resources are insufficient to pay our various obligations as they mature or to fund our ongoing liquidity needs, we and our subsidiaries may be forced, among other things, to reduce or delay business activities and capital expenditure, sell assets, or forego opportunities such as acquisitions of other businesses. There can be no assurance that any of these alternatives can be accomplished on a timely basis or on satisfactory terms, if at all. Further, we may be compelled to restructure or refinance all or a portion of our debt, including the Senior Secured Notes, on or before their maturity. We may face the additional risk that in order to refinance our debt, we could be required to agree to more onerous covenants, which would further restrict our business operations. The occurrence of any event described above may have a materially adverse effect on our margins and results of operations and financial condition.

We may be unable to extend or refinance our debt on favorable terms or at all.

Amounts outstanding under our Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and other future borrowings must potentially be repaid before the maturity date of the Senior Secured Notes. Our ability to pay and refinance our debt or our ability to fund our working capital and capital expenditures is heavily reliant on our future operating performance and our ability to generate a sufficient cash flow. We may be unable to achieve any refinancing on a timely basis or on satisfactory terms. We may also be limited in our ability to pursue refinancing alternatives by the terms and conditions of our existing debt agreements. Our inability to refinance our debt obligations on or prior to their maturity on favorable terms or at all could have a material adverse effect on our ability to service and repay the Senior Secured Notes.

SELECTED FINANCIAL AND OTHER INFORMATION

The financial information contained in the following tables is derived from the audited consolidated financial statements of the Company as of and for the fiscal years ended December 31, 2015, 2016 and 2017 as well as from the accounting records and other internal documents of the Company. The results of operations for prior periods are not necessarily indicative of the results to be expected for the full year or any future period.

The financial information for the fiscal year ended December 31, 2015 as shown below differs from the financial information included in our audited consolidated financial statements for the fiscal year ended December 31, 2015. To ensure comparability with our financial information for the fiscal year ended December 31, 2016, we have presented the financial information for the fiscal year ended December 31, 2015 as presented as prior period information in our audited consolidated financial statements for the fiscal year ended December 31, 2016. In particular, "other operating income" and "other operating expenses" for the fiscal year ended December 31, 2015 have been retroactively adjusted to include all relevant items we had previously reported as "extraordinary income" and "extraordinary expenses", as applicable. Beginning with the fiscal year ended December 31, 2016, relevant changes to German GAAP also required us to reclassify certain items as "sales" that we would previously have classified as "other operating income". We elected not to retroactively adjust our sales and other operating income in the prior period information. Instead, we have included relevant explanatory information in the notes to our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*".

The historical consolidated financial statements and the other historical consolidated financial information presented below have been prepared on the basis of German GAAP, which differs in certain significant respects from IFRS. For a discussion of significant differences between German GAAP and IFRS, see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Summary of Significant Differences between German GAAP and IFRS*".

In the following tables, we also present certain non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data that are not required by, or presented in accordance with, German GAAP. Our management believes that the presentation of these non-GAAP measures is helpful to investors because these and other similar measures are widely used by certain investors, security analysts and other interested parties as supplemental measures of performance and liquidity. However, you should not construe these non-GAAP measures as an alternative to net income determined in accordance with German GAAP or to cash flows from operating activities, investing activities or financing activities. In addition, the non-GAAP measures and ratios, including total output, gross profit, EBITDA, EBITDA margin, consolidated net income/(net loss) before income tax, trade working capital, free cash flow, net cash flow, cash flow available for debt service, adjusted cash flow available for debt service, cash flow from change in trade working capital and cash flow from change in total working capital, capital expenditures, total financial debt as well as net financial debt and other *pro forma* data presented by us may not be comparable to similarly titled measures used by other companies.

You should read the information set forth below in conjunction with the sections "*Presentation of Financial Information*", and "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" and the financial statements and the accompanying notes included elsewhere in this annual report.

	Year ended December 31,		
	2015[1]	2016	2017
	(audited, unless otherwise stated) (€ in thousands)		
INCOME STATEMENT AND OTHER DATA			
Sales	**689,940**	**733,228**	**804,256**
Increase/(decrease) in finished goods and work in process	3,812	(6,554)	10,298
Other operating income[2]	43,489	14,713	17,603
Other own work capitalized	930	1,116	2,637
Total output (unaudited)[3]	**738,171**	**742,502**	**834,795**
Cost of materials	(385,454)	(371,550)	(430,481)
Gross profit (unaudited)[4]	**352,717**	**370,952**	**404,314**
Personnel expenses	(56,838)	(61,423)	(68,326)
Other operating expenses[2]	(176,800)	(154,293)	(160,425)
Other taxes	(1,749)	(1,479)	(1,449)
EBITDA (unaudited)[5]	**152,861**	**154,679**	**180,354**
Amortization and depreciation of fixed intangible and tangible assets	(29,419)	(47,372)	(50,032)
Extraordinary net income/(loss)[2]	—	—	—
Other interest and similar income	150	144	65
Interest and similar expenses	(21,881)	(25,334)	(23,678)
Consolidated net income/(net loss) before income tax (unaudited)[6]	**66,180**	**81,197**	**100,469**
Taxes on income	(11,775)	(19,793)	(28,058)
Consolidated net income/(loss) for the period	**54,405**	**61,404**	**72,412**

	As of December 31,		
	2015	2016	2017
	(audited, unless otherwise stated) (€ in thousands)		
BALANCE SHEET AND OTHER DATA			
Cash-in-hand, bank balances	20,762	37,370	117,946
Trade working capital (unaudited)[7]	99,834	75,486	114,199
Fixed assets	657,486	639,855	640,980
Total assets	**842,355**	**836,815**	**946,356**
Total liabilities (unaudited)[8]	**633,751**	**577,206**	**669,042**
Total financial debt (unaudited)[9]	**531,210**	**455,327**	**537,519**
Net financial debt (unaudited)[10]	**510,448**	**417,957**	**419,572**

	Year ended December 31,		
	2015	2016	2017
	(audited, unless otherwise stated) (€ in thousands)		
CASH FLOW AND OTHER DATA			
Cash flows from operating activities	133,525	152,564	122,706
Cash flows from investing activities	(206,778)	(23,201)	(47,735)
Free cash flow (unaudited)[11]	**(73,253)**	**129,363**	**74,971**
Cash flows from financing activities	74,936	(110,257)	3,818
Net cash flow[12]	**1,683**	**19,106**	**78,789**
Effect on cash funds of exchange rate movements	321	(2,498)	1,787
Adjusted cash flow available for debt service (unaudited)[13]	**(58,962)**	**140,267**	**60,846**

(1) The financial information for the fiscal year ended December 31, 2015 as shown in this table differs from the financial information included in our audited consolidated financial statements for the fiscal year ended December 31, 2015. To ensure comparability with our financial information for the fiscal year ended December 31, 2016, we have presented the prior-period information for the fiscal year ended December 31, 2015 as presented in our audited consolidated financial statements for the fiscal year ended December 31, 2016. In particular, "other operating income" and "other operating expenses" for the fiscal year ended December 31, 2015 have been retroactively adjusted to include all relevant items we had previously reported as "extraordinary income" and "extraordinary expenses", as applicable. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*".

(2) In response to certain changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we do not report "income/(loss) on ordinary activities" and "extraordinary net income/(loss)" as a separate line item in the income statement anymore. As a result, effective as of January 1, 2016, we report as "other operating income" and "other operating expenses" certain items we would previously have reported as "extraordinary income" and "extraordinary expenses", as applicable. To ensure comparability with our financial information for the fiscal year ended December 31, 2016, the financial information for the fiscal year ended December 31, 2015 as shown in this table reflects the prior-period information for the fiscal year ended December 31, 2015 as presented in our audited consolidated financial statements for the fiscal year ended December 31, 2016. "Other operating income" for the fiscal year ended December 31, 2015 as presented in the table above includes €2.8 million we would previously have reported as "extraordinary income". "Other operating expenses" for the fiscal years ended December 31, 2015, 2016 and 2017 as presented in the table above include €38.3 million, €0.9 million and €6.2 million, respectively, we would previously have reported as "extraordinary expenses".

(3) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.

(4) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.

(5) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP, which have resulted in certain changes to the presentation of our financial information for the fiscal years ended December 31, 2015 and 2016 in the table above, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence", which is a new concept under German GAAP introduced by the BilRUG. See also footnotes (1) and (2) above as well as "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*". Excluding the negative effect of €16.0 million in "items of exceptional size or incidence" (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million.

(6) Consolidated net income/(net loss) before income tax (not a German GAAP measure) is calculated by adding taxes on income back to consolidated net income/(net loss) for the period.

(7) We define trade working capital (not a German GAAP measure) as inventories plus trade receivables, minus trade payables.

Our calculation of trade working capital can be reconciled to the balance sheet as follows:

	As of December 31,		
	2015	2016	2017
	(audited, unless otherwise stated) (€ in thousands)		
TRADE WORKING CAPITAL			
Inventories	75,025	73,944	86,864
Trade receivables	57,593	59,562	78,859
Trade payables	(32,784)	(58,020)	(51,524)
Trade working capital (unaudited)	**99,834**	**75,486**	**114,199**

(8) Total liabilities is calculated as investment grants for fixed assets, plus provisions, plus liabilities, plus deferred income.

(9) Total financial debt (not a German GAAP measure) means bank loans plus finance leases plus bonds, including the Senior Secured Notes.

(10) Net financial debt (not a German GAAP measure) is calculated by deducting cash-in-hand, bank balances from total financial debt.

(11) Free cash flow (not a German GAAP measure) is defined as cash flows from operating activities plus cash flows from investing activities.

(12) Net cash flow (not a German GAAP measure) is defined as net change in cash funds as presented in the Consolidated Cash Flow Statement.

(13) We present adjusted cash flow available for debt service (not a German GAAP measure) as a measure of normalized free cash flow which can be used to service debt. We calculate adjusted cash flow available for debt service as cash flow available for debt service adjusted for the effects of extraordinary net income/(loss) as well as for the €16.0 million in "items of exceptional size or incidence" (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016.

Our calculations of adjusted cash flow available for debt service is as follows:

	Year ended December 31,		
	2015	2016	2017
	(audited, unless otherwise stated) (€ in thousands)		
ADJUSTED CASH FLOW AVAILABLE FOR DEBT SERVICE			
EBITDA (unaudited)	152,861	154,679	180,354
Cash flow from change in total working capital (unaudited)[(a)]	5,432	13,032	(42,487)
– thereof cash flow from change in trade working capital (unaudited)	*(2,849)*	*24,348*	*(38,713)*
Taxes on income	(11,775)	(19,793)	(28,058)
Extraordinary net income/(loss)	(35,531)	(921)	(6,240)
Cash flows from investing activities	(206,778)	(23,201)	(47,735)
Other[(b)]	1,298	(496)	(1,228)
Cash flow available for debt service (unaudited)[(c)]	(94,493)	123,300	54,607
adding back extraordinary net income/(loss)	(35,531)	(921)	(6,240)
adding back items of exceptional size or incidence	—	16,046	—
- thereof additional costs as expenditure of exceptional size or incidence	—	*13,914*	—
– thereof lost sales	—	*2,132*	—
Adjusted cash flow available for debt service (unaudited)	**(58,962)**	**140,267**	**60,846**

(a) Cash flow from change in total working capital (not a German GAAP measure) is calculated as (increase)/decrease in inventories, trade receivables and other assets plus increase/ (decrease) in trade payables and other liabilities as presented in the Consolidated Cash Flow Statement.

(b) Other includes other non-cash expense/(income).

(c) Cash flow available for debt service (not a German GAAP measure) means EBITDA adjusted for the effects of changes in total working capital, extraordinary income/(expense), cash flows from investing activities and other, minus taxes on income.

	Year ended December 31,		
	2015	2016	2017
	(unaudited)		
SELECTED OPERATING DATA			
Volumes sold (in 1,000 tons)	1,862	1,972	2,029
—Containerboard	1,026	1,042	1,018
—Corrugated board	836	930	1,011
Externally sold (in 1,000 tons)	1,182	1,234	1,252
—Containerboard	346	304	242
—Corrugated board	837	930	1,011
Average net selling price (ASP) per ton			
—Containerboard (€ per ton)	383	376	413
—Corrugated board (€ per ton)	654	634	657
Total recycled paper costs per ton (€ per ton)	119	130	150

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following is a discussion of the results of operations and financial condition of the Company as of and for the financial years ended December 31, 2015, 2016 and 2017. The financial information contained in the following section is derived from the audited consolidated financial statements of the Company as of and for the fiscal years ended December 31, 2015, 2016 and 2017 as well as from the accounting records and other internal documents of the Company.

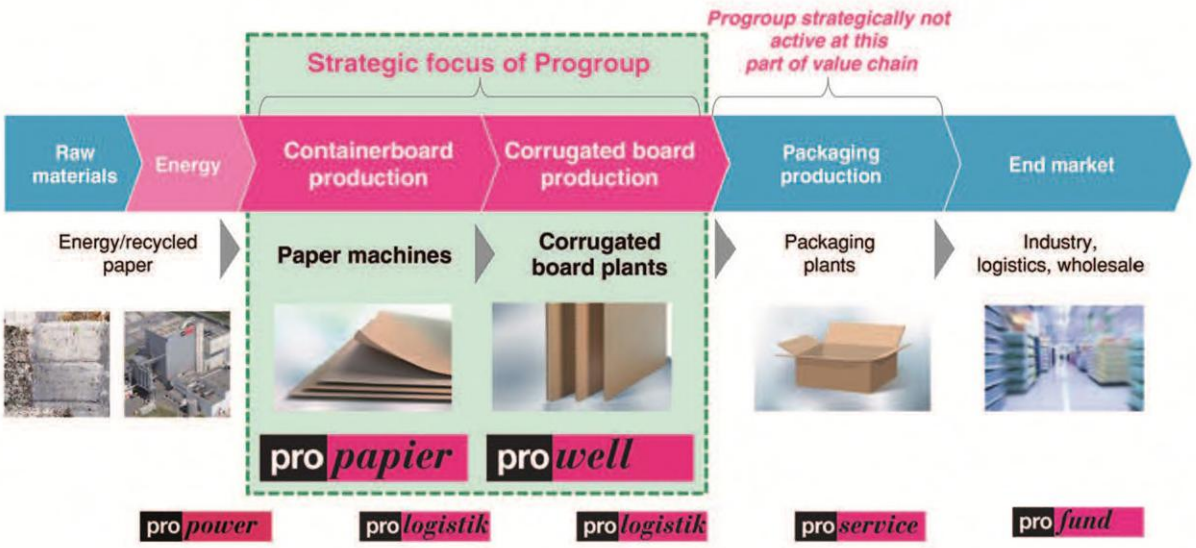
The financial information for the fiscal year ended December 31, 2015 as shown under "—Results of Operations—Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015" below differs from the financial information included in our audited consolidated financial statements for the fiscal year ended December 31, 2015. To ensure comparability with our financial information for the fiscal year ended December 31, 2016, we have presented the financial information for the fiscal year ended December 31, 2015 as presented as prior period information in our audited consolidated financial statements for the fiscal year ended December 31, 2016, under "—Results of Operations—Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015" below. In particular, "other operating income" and "other operating expenses" for the fiscal year ended December 31, 2015 have been retroactively adjusted to include all relevant items we had previously reported as "extraordinary income" and "extraordinary expenses", as applicable. Beginning with the fiscal year ended December 31, 2016, relevant changes to German GAAP also required us to reclassify certain items as "sales" that we would previously have classified as "other operating income". We elected not to retroactively adjust our sales and other operating income in the prior period information. Instead, we have included relevant explanatory information in the notes to our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016. See also "Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG".

Our consolidated financial statements included in this annual report have been prepared in accordance with German GAAP, which differs in certain significant respects from IFRS. For a discussion of significant differences between German GAAP and IFRS, see "—Summary of Significant Differences between German GAAP and IFRS". In this annual report, the term "financial statements" refers to the audited consolidated financial statements and the notes thereto of the Company and its subsidiaries as of and for the fiscal years ended December 31, 2015, 2016 and 2017. The audit report of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (formerly PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft) with respect to the consolidated financial statements as of and for the fiscal year ended December 31, 2017 is included in this annual report beginning on page F-1.

The following discussion should be read in conjunction with "Selected Financial and Other Information" and our audited consolidated financial statements contained elsewhere in this annual report. In addition, some of the information contained in this discussion, including information with respect to our plans and strategies for our business and our plans for future capital expenditures, contain forward-looking statements that involve risks and uncertainties. You should read "Forward-Looking Statements" for a discussion of the risks related to those statements. You should also read "Business" and "Risk Factors" for more information about us, including a discussion of certain factors that may adversely affect our business, results of operations and financial condition.

OVERVIEW

We are a leading, family-owned producer and supplier of containerboard and corrugated board in Central Europe and are headquartered in Landau, Germany. According to Vision Hunters, we are the third largest producer of corrugated board in Europe (by production capacity) through our Prowell business ("**Prowell**") and the sixth largest producer of recycled containerboard in Europe (by production capacity) through our Propapier business ("**Propapier**"). We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned box manufacturing customers. In this core market segment, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.* the automated and integrated production of containerboard and corrugated board. Our customers serve various end markets, including industrial/manufacturing, consumer durables, processed foods, non-food manufactured consumer goods and fresh food. Unlike many fully integrated market players, we do not produce boxes and therefore do not compete with our box manufacturing customers but instead focus solely on the production of containerboard and corrugated board.



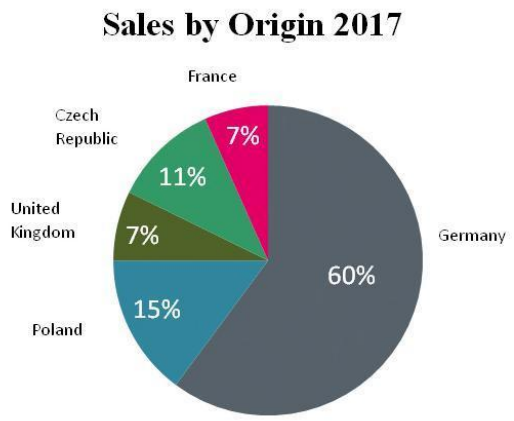
Through our large scale and highly flexible production, built up primarily via a greenfield approach, we are able to realize significant economies of scale. Since we commenced operations in 1992, we have carefully selected the locations of our production sites and have grown organically by pursuing primarily a greenfield strategy to create an optimal geographic set-up of our production sites across the markets in which we operate. As a result, we benefit from a well-invested asset base and production sites with high technological standards, resulting in a relatively low cost base compared to many of our competitors and relatively low requirements for additional capital expenditures in the short- to medium-term. Given the high technological standards of our production facilities, we believe we are well-positioned to benefit from major growth trends in our industry, such as (i) increasing demand for light-weight packaging, (ii) the increasing importance of small-size packaging due to the growing importance of e-commerce, and (iii) the general trend towards a more efficient and sustainable use of raw materials and energy, which can help reduce both costs and CO_2 emissions.

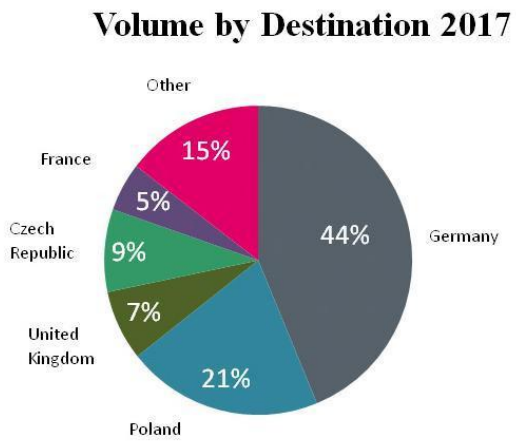
Our core business comprises Propapier and Prowell. The focus of Propapier's operations is highly flexible containerboard production using almost exclusively recycled paper, with high output volumes to increase cost efficiency and short delivery times. In 2015, 2016 and 2017, containerboard produced by Propapier accounted for most of the containerboard sourcing requirements of our corrugated board production within Prowell. We believe that a high degree of vertical integration and the ability of Prowell to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. In addition, our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options.

Propapier manufactures containerboard at our two paper mills in Germany, with an envisaged total annual production capacity of approximately 1,100,000 tons of containerboard. Our two paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, have complementary production layouts which allow us to produce brown containerboard with grammages between 60-230g/m^2 using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for Prowell's ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,250,000 tons of corrugated board. Our historic greenfield location strategy ensures close customer proximity and high production flexibility. As part of our historic greenfield location strategy and to secure a reliable supply of energy to our paper machine PM2 at clearly defined prices, we entered into framework and ancillary agreements with EnBW for the construction and operation of a combined heat and power plant (the "**CHP**") adjacent to our paper mill in Eisenhüttenstadt. Pursuant to these agreements, the CHP was owned by Propower GmbH, a former wholly-owned, indirect subsidiary of EnBW Energie Baden-Württemberg AG. Effective as of midnight on December 31, 2015, we acquired Propower GmbH, the CHP and certain related assets outright (the "**CHP Acquisition**"). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves ("**Propower**").

In 2017, we sold approximately 1,011,000 tons of corrugated board and approximately 242,000 tons of containerboard to external customers across Europe, resulting in external corrugated board and containerboard sales, respectively, of €663.9 million (82.6% of total sales) and €99.7 million (12.4% of total sales). Propapier's total sales in 2017 include €18.8 million (2.3% of total sales) in revenues from the sale of electricity and revenues from the incineration of refuse-derived fuel resulting from the integration of the CHP as well as €8.5 million (1.1% of total sales) in sales from passing purchased fuel costs to Sales and Solutions GmbH. Total external sales by Prowell and Propapier in 2017 (including sales other than corrugated board or containerboard sales, respectively) amounted to €664.5 million (82.6% of

total sales) and €128.5 million (16.0% of total sales). Our total sales and EBITDA in 2017 amounted to €804.3 million and €180.4 million, respectively. Sales in Germany (origin), our core market, accounted for 60.2% of total sales and 44% of sales by volume in 2017.





Primarily to support our core business, Propapier and Prowell, we have established our own logistics operations, including a fleet of currently 59 trucks ("**Prologistik**"). Most of the remaining €11.3 million in sales (1.4% of total sales) in 2017 were generated by Prologistik. We also provide marketing, communication and IT services, again primarily to support Propapier and Prowell ("**Proservice**"). Proservice did not generate any external sales in 2017 and does not have any significant assets or liabilities, but provides value-add services to our customers.

Founded in 1991, we are indirectly majority-owned by Jürgen Heindl, our founder and chief executive officer.

KEY FACTORS AFFECTING OUR RESULTS OF OPERATIONS

We principally generate revenue through the sale of containerboard and corrugated board. We sell our corrugated board only to third-party customers in the packaging industry. Our mills primarily supply the containerboard we produce to Group-owned corrugated board plants; however, only third-party sales are reflected in our revenue. We also sell, to a lesser degree, containerboard to third parties. In 2017, corrugated board sales and external containerboard sales accounted for 82.6% and 12.4%, respectively, of our total sales.

Key factors that affect our operating results are:

- changes in demand and industry production capacity;
- the cost of recycled paper, other raw materials and other costs of manufacturing;
- changes in energy costs, both as a result of market price movements and regulatory changes, including energy tax refund schemes and other statutory accommodations for energy intensive industries;
- changes in freight and transportation costs;
- our ability to pass on price increases in raw materials and other input costs into the prices we charge for third-party sales of containerboard and corrugated board;
- the performance and the utilization of our production sites as well as the performance of certain facilities owned and operated by us, such as the CHP;
- the level of vertical integration between Propapier and Prowell;
- currency exchange rate movements;
- our ability to achieve cost savings; and
- our ability to successfully complete ongoing and future expansion projects.

Because many of these factors are beyond our control and certain of these factors have historically been volatile, past performance is not necessarily indicative of future performance and it is difficult to predict future performance with any degree of certainty.

Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs

Fluctuations in Demand and Industry Capacity

Demand for our products is generally driven by the level of economic growth and activity. Increased levels of economic growth and activity typically result in higher per capita use of packaging materials, both with respect to transportation of goods and consumer presentation. This increase in the use of packaging materials (including paper-based packaging materials), in turn, results in an increase in the demand for our recycled containerboard and corrugated board products. Because the markets for containerboard and corrugated board products in the developed economies in which we primarily operate are generally mature, historically there has been a close correlation between general economic growth and demand for packaging products such as corrugated containers and, therefore, for their component materials such as containerboard and corrugated board. Less developed economies, including those in Eastern Europe, have a lower per capita consumption of packaging materials and therefore also of containerboard and corrugated board products but also, as a result, have the potential for higher growth as per capita consumption of packaging materials increases towards levels of developed economies.

To a lesser degree, demand for corrugated containers and their component materials, including our containerboard and corrugated board, is affected by changes in their market prices. Significant increases in the price of corrugated containers have, on occasion, resulted in decreased demand as end-customers elected to purchase substitute products, such as reusable plastic containers, wooden crates or shrink-wrap.

Historically, prices for containerboard and corrugated board have tended to be cyclical. This cyclicality has resulted from significant imbalances in supply and demand for containerboard. On the one hand, containerboard production capacity cannot be readily adapted to reflect changing market conditions due to the high capital intensity of paper production facilities and the long lead time between the planning and construction of a new containerboard mill. On the other hand, significant containerboard and corrugated board price reductions and inventory growth have resulted when capacity has exceeded demand. In the past, many leading paper manufacturers have reacted to reduced demand by taking downtime and by rationalizing high-cost and inefficient capacity.

Fluctuations in Raw Material Costs

Because the primary raw material for the production of recycled containerboard is recycled paper, the price of which tends to fluctuate, our two recycled containerboard mills (*i.e.*, our paper machines PM1 and PM2) can experience temporary increases and decreases in profits. Except for the period between 2009 and 2010 following the financial and economic crisis, our paper mill in Burg (PM1) has historically generated a relatively stable margin, in part because we primarily sell our containerboard to our own corrugated board plants. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Prowell have increased to approximately 76% (or 87%, if we include containerboard sales to swap partners) of the total sales, by volume, of Propapier in 2017. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy and the completion of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. However, with the expected establishment of up to four further corrugated board production sites between 2019 and 2021, we expect to successively increase this net short position with regard to containerboard even further at least in the short-term to mid-term. As a result, we currently do not expect the volume of our external containerboard to significantly increase again unless and until we complete our proposed further paper machine project (PM3). For more details on our expansion projects and investment program, see also"—*Expansion Projects and Investment Program*" below

Our overall profitability is also affected by the length of time it takes us to translate price increases in raw materials and other input costs into prices we charge for third-party sales of containerboard and corrugated board. To the extent our containerboard is sold internally, our profitability will only be affected by the ability to recover any price increases from third-party sales of corrugated board to our third party customers in the packaging industry. Furthermore, to the extent that selling prices fall, if we are unable to generate cost savings through producing products more efficiently or lower our fixed costs, our results may be negatively affected.

An important driver of recycled paper prices is the balance of supply and demand for paper products in general as well as collection rates of recycled paper. When the price of recycled paper increases, containerboard manufacturers attempt to raise their prices to preserve profit margins, which generally narrow as a result of higher raw material costs. It typically takes approximately two to three months for mills to pass on their raw material price increases to corrugated board manufacturers. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for these manufacturers, including us, to pass these increases on to their customers.

In a down cycle, as recycled paper prices fall, manufacturers of paper and paper-based packaging products (including manufacturers of containerboard and corrugated board) attempt to maintain prices. In the past, we have typically been able to maintain our prices for two to three months in such a down cycle. As a result, the effect of price fluctuations on our mills and corrugated board operations varies, depending on the relevant point in the industry cycle. During periods of rising containerboard prices, our profitability can therefore be adversely affected. Conversely, during periods of declining containerboard prices, our profitability can be positively affected.

However, our ability to pass the costs of our raw materials and other input costs on to our packaging customers depends on a number of other factors, including the supply and demand balance for containerboard and corrugated board in a particular region and the ability of our customers to maintain or increase prices with their own customers. We generate almost all of our sales through purchase orders from our customers based on our price lists which we adjust in response to market price movements and only have very few contracts with our customers which provide minimum purchase obligations and/or pricing clauses that would allow us to automatically pass increased costs on to our customers. As a result of these factors, there can be no guarantee that the price of recycled paper and the prices for our containerboard and corrugated board products will always be closely correlated. Any extended mismatch between the price of recycled paper and the market prices for our products could have a significant effect on our margins and overall profitability.

For example, between 2009 and 2010, our results of operations and financial condition deteriorated. There were two main reasons for this deterioration. First, the global financial and economic crisis led to a significant drop in the price of recycled paper in the second half of 2008, followed by a significant decrease in the demand for our products and a corresponding decrease in the market prices for both containerboard and corrugated board. Following the significant drop in the prices for recycled paper in the second half of 2008, the prices for recycled paper started to recover in the first half of 2009, notwithstanding the continuing economic weakness and contrary to historic trends. This, in turn, led to a compression of our margins during the third quarter of 2009 when the sales prices for some of our finished products were insufficient to cover our variable input costs. As a result, we incurred significant losses and a few of our competitors were forced to close or mothball less efficient production facilities, which led at least temporarily to a drop in market-wide containerboard and corrugated board capacity. Our margins only returned to more sustainable levels towards the end of 2010, following multiple price increases for recycled paper, containerboard and corrugated board. Conversely, due to a combination of (i) a higher level of integration between our containerboard and corrugated board businesses, (ii) positive effects from measures we took as part of our Continuous Improvement Program and the immediate measures we took at the time in response to the deterioration of our results of operations and financial condition, and (iii) sustained economic growth in Germany in 2014 and 2015, we were able to increase the average selling price for both our containerboard and corrugated board products in 2014 and 2015, while the price of recycled paper generally remained stable throughout 2014 and only moderately increased in the second and third quarters of 2015, which had a significant positive impact on our margins and general profitability. During the course of 2016, corrugated board and containerboard prices slowly and steadily decreased from 2015 price levels. At the same time prices for recycled paper increased throughout the first three quarters of 2016, before decreasing slightly in the fourth quarter of 2016. As a result, following a strong improvement in our operating results in 2014 and 2015, we experienced a leveling of our operating results in 2016.

Due to strong demand, especially from Asia, prices for recycled paper were significantly higher during 2017 compared to 2016, especially during the first half of 2017. The average price per ton for recycled paper grades we purchased was approximately €150 during 2017, compared to €130 during 2016. During the third quarter of 2017, however, prices for recycled paper started to gradually decline again, a trend which continued through the end of 2017, in part as a result of policy changes and stricter import controls in China, which resulted in decreasing recycled paper exports to China. During the fourth quarter of 2017, the average price per ton for recycled paper grades we purchased was approximately €142 per ton, compared to €136 per ton in the fourth quarter of 2016. Partly as a result of the increases in recycled paper prices, prices for recycled containerboard in Europe also steadily increased again during the course of 2017. The average prices for our containerboard increased from €376 per ton (for the overall product portfolio mix sold externally) during 2016 to €413 per ton during 2017. During the course of 2017, we were able to achieve aggregate price increases for our containerboard of €90-100 per ton in total, which are not fully reflected in the average sales figures. On the other hand, the average price per ton for the containerboard we were required to purchase externally also increased in 2017. Party as a result of the increases in recycled containerboard prices, corrugated board prices also increased again during 2017, following the increases in containerboard prices with a slight time lag. During the course of 2017, the average prices for our corrugated board increased from approximately €634 per ton during 2016 to €657 per ton during 2017. During the

course of 2017, we were able to achieve aggregate price increases for our corrugated board products of €90-100 per ton in total, which are not fully reflected in the average sales figures.

In 2018, Central European recycled containerboard producers again raised prices as follows: (i) by approximately £50 per ton in the United Kingdom effective as of mid-January 2018, (ii) by approximately €40 per ton in France and Poland effective as of February 2018, (iii) by approximately €30 per ton in Germany effective as of February 2018 and (iv) by approximately €20 per ton in Italy effective as of January or February 2018. If European corrugated board producers (including Prowell) are able to successfully pass the increase in containerboard prices through to their customers, this would have a further positive impact on our gross margin. However, there can be no assurance that our strong operating performance will continue or that our EBITDA will not decline.

Fluctuations in Energy Costs

Another important input for us is energy. Our production processes, in particular the production of containerboard at our two mills, are energy intensive. In 2008, we entered into certain framework and ancillary agreements with EnBW for the supply of steam to PM2 via the CHP, which reduced our exposure to fluctuations in gas prices. As described in more detail under "*—The CHP Acquisition*" below, effective as of midnight on December 31, 2015, we acquired Propower GmbH, the CHP and certain related assets outright. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. The completion of the CHP Acquisition constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs. However, our production processes are nevertheless reliant on third parties for the supply of energy. Market prices for energy, in particular for electricity, oil and natural gas, have historically been volatile and have had a corresponding effect on our production costs. As a result, we have undertaken significant efforts in recent years to decrease our energy consumption and costs throughout our business. For further information, see "*Business—Procurement/Purchasing—Energy*" and "*Business—Sustainability Focus; Research and Development*".

The key drivers of our energy expenses have been, and will continue to be, fluctuations in the market prices for energy, the performance of the CHP adjacent to our paper mill in Eisenhüttenstadt as well as regulatory decisions. Any extended shutdowns of the CHP may have a negative impact on our results of operations. For example, a longer than scheduled maintenance shutdown of the CHP in the third and fourth quarters of 2016 resulted in €16.0 million in items of exceptional size or incidence, including €13.9 million in exceptional expenses and €2.1 million in lost sales. In addition, in Germany, our core market, energy prices have been strongly impacted by regulatory decisions related to the so-called "*Energiewende*", a significant shift in government policy following the nuclear accident in Fukushima, Japan in 2011. The energy policy in Germany focuses on promoting the development of renewable energy sources and contemplates the complete cessation of the production of nuclear power by 2021. To mitigate the impact of the resulting significant increases in electricity prices for energy-intensive industries, the German government adopted rules that provide for various businesses, including us, to be reimbursed for certain infrastructure investment surcharges necessary for the implementation of the "*Energiewende*". However, those rules have not only been subject to challenges in German courts and EU scrutiny as potentially illegal subsidies, but also continue to be the subject of political scrutiny by various interest groups. Although the relevant rules have been modified to address certain of these concerns, there is no guarantee that they will not change again or that we will continue to be able to benefit from current accommodations, reimbursement rules and/or energy tax refund schemes.

Notwithstanding increases in production volumes, our energy costs have declined in recent years for a variety of reasons, including (i) our efforts to reduce energy consumption, in particular with regard to PM2, (ii) falling energy prices, (iii) the optimization of our energy procurement processes, (iv) the optimization of the operating costs of the CHP, in particular with regard to ash disposal, as well as (v) the full utilization of all available accommodations, credits and refunds under applicable energy laws and regulations. For more information about our energy management efforts, see "*—Sustainability Focus; Research and Development*".

Fluctuations in Freight/Logistics Costs

Our production operations require us to coordinate and monitor complex logistics processes between each step of our internal value chain and our production processes to ensure the efficient flow of materials and products. This includes the shipment of large rolls of containerboard from our two paper mills in Germany to our ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom as well as the shipment of our finished corrugated board to our customers in the packaging industry (box plants). We meet our freight and logistics requirements mainly through the use of external logistics companies and, to a much lesser extent, our own fleet of currently 59 trucks. Due to the relatively large size and weight of our products compared to value, freight and logistics expenses play an important role in our business, and fluctuations in freight prices can have a significant impact on our profitability.

Currency Fluctuations

Given the growing geographic spread of our operations, we are increasingly exposed to currency exchange rate fluctuations. For example, the United Kingdom, the Czech Republic and Poland do not use the euro as their national currency. During the year ended December 31, 2017, 8%, 7% and 14% of our total sales derived from sales in British pounds, Czech koruna and Polish zloty, respectively. In addition, we currently finance several of our foreign subsidiaries, including subsidiaries outside the euro zone, through borrowings in euro.

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the Polish zloty, Prowell sp. z o.o. entered into the 2015 Senior Secured PLN Facility on December 1, 2015 to pay back euro denominated intra-Group loans. To finance the investment in our corrugated board production site (PW10) in Trzcinica, Poland, Prowell sp. z o.o. entered into the 2016 Senior Secured PLN Facility on May 31, 2016. As of December 31, 2017, PLN 85.6 million (carrying amount at December 31, 2017: €20.5 million, calculated based on an exchange rate of €1.00 = PLN 4.177, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on December 31, 2017) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 92.0 million (carrying amount at December 31, 2017: €22.0 million, calculated based on an exchange rate of €1.00 = PLN 4.177) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this annual report, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. For more details about the Senior Secured PLN Facilities, including scheduled repayments on the Senior Secured PLN Facilities, see "*Description of Certain Financing Arrangements—Amended and Restated Senior Secured PLN Facilities*".

To reduce (but not eliminate) our exposure to exchange rate fluctuations between the euro and the British pound, Prowell Ltd. entered into the Senior Secured GBP Facility on December 21, 2017. The utilization of the Senior Secured GBP Facility is subject to certain conditions precedent, which we all expect to satisfy on or around the issue date of the New Notes. As a result, the Senior Secured GBP Facility currently remains undrawn. We may utilize the GBP70.0 million Senior Secured GBP Facility until May 31, 2019. For more details about the Senior Secured GBP Facility, see "*Description of Certain Financing Arrangements—Senior Secured GBP Facility*".

Prior to the 2015 Refinancing, we were not permitted under our former financing arrangements to hedge for currency risks. As a result, fluctuations in the value of local currencies against the euro have had, and may have in the future, a significant effect on our operations and on our reported results in euro and the comparability of our performance between financial periods can be significantly affected by fluctuations in local currencies against the euro. We have since started to implement foreign currency risk management in order to monitor our foreign currency risk and to enable us to consider taking action if we decide to do so, but there is no assurance that such measures will be effective.

The relative strength or weakness of the U.S. dollar is also important for the European containerboard industry, because exports from the European market influence the balance of supply and demand and the price development of containerboard in Europe. Movements in the U.S. dollar exchange rate may also have an effect on trading, because a strong U.S. dollar tends to make U.S. dollar exports less competitive, while a weak euro may create export opportunities for European containerboard producers, which can reduce containerboard supplies in the European market and promote price stability. Conversely, a weak U.S. dollar over a sustained period has historically resulted in lower (U.S. dollar-denominated) exports by European containerboard manufacturers with a negative (for our business) effect on the supply and demand balance and an immediate effect on the pricing of containerboard in Europe. In addition, a weak U.S. dollar over a sustained period has, in the past, also resulted in lower sales by other European manufacturers who ship products in corrugated packaging, resulting in lower European demand for corrugated packaging and, therefore, for our containerboard and corrugated board. A weak U.S. dollar may also result in additional competition in the European market from U.S. manufacturers that have an incentive to sell more products in Europe, due to increased European demand for the relatively lower-priced U.S. goods over higher-priced European goods.

Significant Synergies through High Degree of Vertical Integration between Propapier and Prowell

In 2017, containerboard produced by Propapier accounted for approximately 80-85% of the containerboard sourcing requirements, by volume, of our corrugated board production within Prowell. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Prowell have increased from approximately 66% (or 74%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Propapier in 2015 to approximately 76% (or 87%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Propapier in 2017. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018 and the expected completion of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom by the end of the third quarter

of 2018, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. However, with the expected establishment of up to four further corrugated board production sites between 2019 and 2021, we expect to successively increase this net short position with regard to containerboard even further at least in the short-term to mid-term. As a result, we currently do not expect the volume of our external containerboard to significantly increase again unless and until we complete our proposed further paper machine project (PM3). For more details on our expansion projects and investment program, see also"*—Expansion Projects and Investment Program*" below

With an envisaged total annual containerboard capacity of approximately 1,100,000 tons, Propapier produced approximately 1,024,000 tons of containerboard in both 2017 and 2015. In 2017, approximately 776,000 tons were sold internally to Prowell (2015: 680,000 tons of internal containerboard sales), and a further approximately 108,000 tons were sold pursuant to swap agreements with other containerboard producers (2015: 78,000 tons of sales to swap partners), which allow us to reduce transportation costs, optimize our production program and swap internally produced containerboard for certain containerboard grades we do not produce in sufficient quantities, such as kraftliner. The remaining approximately 134,000 tons of containerboard we sold in 2017 were sold externally (2015: approximately 268,000 tons of external containerboard sales, excluding sales to swap partners). With a total annual corrugated board production capacity of approximately 1,250,000 tons (including (i) 110,000 tons of capacity of our corrugated board production site (PW10) in Trzcinica, Poland, which commenced production at the end of January 2017 and (ii) 100,000 tons of capacity of our newest corrugated board production site (PW11) in Drizzona, Italy, which commenced production in early March 2018) as of the date of this annual report (2015: total annual corrugated board production capacity of approximately 1,020,000 tons), Prowell produced approximately 1,011,000 tons of containerboard in 2017, compared to approximately 837,000 tons of corrugated board in 2015. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Propapier and Prowell over the last few years has also been allowing us to further optimize our internal logistics and supply chain.

Expansion Projects and Investment Program

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term "Two Twentyfive" strategy. In addition to further capacity expansion, our "Two Twentyfive" strategy, among other things, also contemplates a gradual technological transition and generation change away from the use of corrugators with a trim width of 2.5m, which are installed and currently in use at some of our older corrugated board production sites, to the use of more modern corrugators with trim widths of 2.8m or 3.3m at most of our corrugated board production sites. Following the successful completion of the ramp-up of production at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015, we had already accomplished one of our long-standing strategic goals in 2016 and were already operating within our target corridor with regard to the level of integration between Propapier and Prowell. However, in the short-term to mid-term, we still intend to continue to focus our investment activities on further expanding our corrugated board production capacity to be able to seize what we believe are numerous further market opportunities for profitable growth, similar to those that led to the successful establishment of our most recent production sites (PW9, PW10 and PW11) in Plössberg (Germany), Trzcinica (Poland) and Drizzona (Italy). In continuation of our organic growth strategy, we intend to primarily achieve further growth by pursuing further expansion opportunities via greenfield projects.

In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland in 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our newest corrugated board production site (PW11) in Drizzona, Italy, in early March 2018. As with our corrugated board production site (PW9) in Plössberg, Germany and our corrugated board production site (PW10) in Trzcinica, Poland, we established this newest site as a packaging park project in immediate proximity to the existing packaging plant of a customer, Italian packaging specialist Imbal Carton S.r.l., which will allow us to supply this new customer largely without freight and other logistics costs. We invested approximately €13 million into the establishment of this newest corrugated board production site. The commencement of production at our corrugated board production site (PW11) in Drizzona, Italy, with an annual corrugated board production capacity of approximately 100,000 tons, also marks our entry into the largest corrugated sheet board market in Europe. In addition, in October 2017, Prowell Ltd. broke ground and commenced construction of a new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom. This additional corrugated board production site, which is located a few kilometres from our existing

corrugated board production site (PW8) in Ellesmere Port and which is currently scheduled to commence production toward the end of the third quarter of 2018, will operate with a 3.35m trim width and have an annual corrugated board production capacity of more than 200,000 tons. We believe that this new production site, with its large capacity and state-of-the-art equipment, will be one of the largest and most efficient corrugated sheet board plants globally and position us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins. We currently expect to invest a total of approximately €85 million in the establishment of the new site, including approximately €17 million in expenses we have already incurred in 2017. We established our existing corrugated board production site (PW8) at Ellesmere Port, which has an annual corrugated board production capacity of approximately 85,000 tons, in 2009 with a used corrugator with a 2.5m trim width, and we currently expect to close this existing corrugated board production site following commencement of production at the new site.

While we have historically pursued a pure greenfield growth strategy, including the three packaging park projects (PW9, PW10 and PW11) and our proposed new corrugated board production site (PW12) in the United Kingdom described above, we are also evaluating and will continue to evaluate opportunities to acquire attractive assets from competitors which would complement our existing network of production sites, advance our goal of further increasing our corrugated board production capacity and meet the other internal investment and financing criteria described above. In addition, in order to maintain and/or strengthen our relationships with certain large and long-standing customers or in response to opportunities to establish relationships with significant new customers, we will consider additional packaging park projects whereby we would establish corrugated board production sites at or in proximity to the packaging plants of the relevant customers.

With the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy and the completion of the proposed new corrugated board “mega plant” (PW12) in Ellesmere Port, United Kingdom, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. In the short-term to mid-term, we nevertheless intend to continue to focus our investment activities on further expanding our corrugated board production capacity, and we currently expect to establish up to four further corrugated board production sites in Central Europe between 2019 and 2021. As a result of these proposed additional corrugated board production sites, we expect our annual corrugated board production capacity to increase from approximately 3.0 billion square meters (including our corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom) to approximately 4.2 billion square meters.

Furthermore, in order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Prowell, we have also begun to actively pursue the realization of a potential further paper machine project (PM3), subject to the internal investment and financing criteria described above and taking into consideration market factors as well as the expected future containerboard sourcing requirements of Prowell. In particular, we have been evaluating several potential sites for the potential paper machine project (PM3) in Germany and are currently in advanced discussions with the land owner, the local municipality, local utilities and other stakeholders at one potential site. In addition, we have also commenced early-stage discussions with potential equipment suppliers for the potential paper machine project. If completed at all, we currently expect this potential further state-of-the-art paper machine (PM3) to have a total annual containerboard capacity of approximately 750,000 tons and to commence production in 2021. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Propapier from currently approximately 1,100,000 tons to approximately 1,850,000 tons. We currently expect that the proposed new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap and higher productivity. We expect to invest a total of approximately €375 million in the potential paper machine project over a several year period, with initial expenditures (e.g. for purchasing the land and certain preliminary work) as early as 2018 or 2019. We expect to fund any such investments with a combination of cash generated from our operating activities and additional borrowings.

Even successful expansion (or acquisition) projects can have a negative impact on our profitability in the short-term. For example, our reduced profitability between 2009 and 2010 following the global financial and economic crisis coincided with the launch of production at our corrugated board production sites in Strykow, Poland (PW7) and Ellesmere Port, United Kingdom (PW8) and at our paper mill in Eisenhüttenstadt, Germany (PM2), which involved significant start-up and ramp-up costs. The related costs were largely expected and are normal in our industry, but their timing further exacerbated our financial condition. In addition, even in a positive market environment, it typically takes two to three years from the launch of a new corrugated board production site until the production site is fully utilized. For example, we launched our corrugated board production site in Strykow, Poland (PW7) in 2009, but the site only completed its

ramp-up phase in 2012 and therefore, did not operate at a three-shift capacity for an entire year until 2013. Our corrugated board production site (PW9) in Plössberg, Germany commenced production in October 2015 and completed its ramp-up phase in 2017, while our corrugated board production site (PW10) in Trzcinica, Poland completed a very fast and successful ramp-up and will likely operate at a full, three-shift capacity for an entire year for the first time in 2018. We expect our newest corrugated board production site (PW11) in Drizzona, Italy and our proposed new corrugated board production site in Ellesmere Port, United Kingdom described above to also undergo ramp-up phases of different durations with a corresponding impact on our result of operations. Should we decide to pursue the potential further paper machine project (PM3), the related start-up and ramp-up costs and short-term to mid-term impact on our profitability would be proportionately higher, due to the much larger size, higher level of complexity and longer implementation timeframe of such a project, compared to the establishment of a new corrugated board production site. For our paper mill in Eisenhüttenstadt (PM2), for example, we executed some of the definitive agreements with our main project partners (including the related financing arrangements) as early as the summer of 2008, before starting initial ground works later that year. In addition, even though our paper mill in Eisenhüttenstadt (PM2) commenced operations in March 2010, it only completed its initial ramp-up phase in 2013. Since then, we have been continuing our efforts to further optimize our operations at our mill in Eisenhüttenstadt, which involves not only the optimization of the performance of PM2, but also the optimization of connected processes, including the operation of the CHP we acquired effective as of midnight on December 31, 2015. For more information about the risks associated with the integration of potential expansion projects and acquisitions, see also "*Risk Factors—Risks Related to our Industry and our Business—The costs and difficulties of integrating complementary businesses through organic and acquisitive expansion could impede our future growth and adversely affect our competitiveness*".

Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases

We expect that the start of production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Prowell, so that we will become a net purchaser of containerboard in 2018. In addition, we currently expect to establish up to four further corrugated board production sites between 2019 and 2021. See also "*—Expansion Projects and Investment Program*". Unless and until we complete the proposed new paper machine project (PM3), this expected increase in our corrugated board production combined with a current supply shortage in the European containerboard market, will likely cause us to further increase the level of internal containerboard sales to Prowell (and thereby the level of integration between Propapier and Prowell) in 2018 and to increasingly rely on purchasing containerboard from third party suppliers. We believe that targeted external containerboard purchases that meet the specific sourcing requirements of Prowell will give us additional flexibility and provide us with opportunities to further optimize (i.e., minimize) our variable costs, for example, by allowing us to purchase containerboard that matches the specific grade and optimal trim-width required for our corrugated board production from time to time, from external suppliers located in close proximity to the relevant Prowell plants. We hope this will allow us to further reduce cutting scrap, further optimize logistics expenses and give us additional flexibility to optimize the utilization of our own paper machines (PM1 and PM2).

Continuous Improvement Program

As described above, we operate in a cyclical industry where the price of our containerboard and corrugated board as well as recycled paper, our primary raw material, is subject to cyclical fluctuations. Other major cost items, such as personnel expenses, are the subject of annual increases, and the costs of energy and freight, which are also significant expenses, have partly trended upwards. In order to maintain profitability throughout the cycle, we have implemented a comprehensive profitability improvement program (the "**Continuous Improvement Program**") to ensure the long-term success of our Group. Our Continuous Improvement Program focuses on (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry.

Since 2012, our main focus in connection with our goal of achieving sales excellence has been on (i) growing our external sales in excess of the general growth in market volumes (and thereby increasing our market share), (ii) maximizing the impact of the introduction of our "next generation" products into the market, and (iii) optimizing our sales portfolio. As part of our efforts to optimize our variable costs, we have focused on (i) reducing our consumption of raw materials, (ii) optimizing our energy consumption and energy costs, especially at our paper mill in Eisenhüttenstadt (PM2), and (iii) reducing the purchase prices of our key production factors, such as recycled paper, starch or freight services. Our continued ability to implement these and other efficiency improvement projects successfully may have a significant impact on our profitability. For more information about our past and ongoing efforts to ensure the sustainability of our business and to maintain our position as a cost leader, see also "*—Significant Synergies through High Degree of Vertical Integration between Propapier and Prowell*", "*—Achieving further cost-savings and efficiency*

improvements through increased external containerboard purchases" and "*Business—Sustainability Focus; Research and Development*".

The 2015 Refinancing

In connection with the issuance of €250,000,000 aggregate principal amount of the Senior Secured Fixed Rate Notes and €150,000,000 aggregate principal amount of the Company's senior secured floating rate notes due 2022 (the "**Former Floating Rate Notes**") on April 30, 2015, the Company and the existing Guarantors (other than Propower GmbH) originally entered into the Super Senior Revolving Credit Facility. See "*Description of Certain Financing Arrangements—Amended and Restated Super Senior Revolving Credit Facility*". At the same time, JH-Holding Finance SA, a newly incorporated finance subsidiary of JH-Holding, the Company's direct controlling shareholder, also issued the PIK Toggle Notes, which are fully and unconditionally guaranteed by JH-Holding. We have since redeemed all of the Former Floating Rate Notes.

The proceeds from the issuance of the €250,000,000 aggregate principal amount of Senior Secured Fixed Rate Notes, the Former Floating Rate Notes and the PIK Toggle Notes were used (i) to repay all outstanding amounts, including accrued and unpaid interest, under our senior facilities agreement dated August 3, 2009, as amended (the "**Former Senior Credit Facility**"), (ii) to fund the acquisition by JHH Python GmbH, a wholly-owned subsidiary of JH-Holding, of all rights under the credit facility agreement dated July 23, 2008, as amended, between JH-Holding and its existing creditors (the "**Former JH-Holding Facility**"), (iii) to fund the acquisition by JH-Holding of certain preference shares in the Company then held by BWK GmbH Unternehmensbeteiligungsgesellschaft, (iv) to pay the costs in relation to the termination of interest rate swaps by the Company and certain of our subsidiaries and (v) to pay other costs, fees and expenses related to the offerings and the entering into the Super Senior Revolving Credit Facility.

The offerings of the €250,000,000 aggregate principal amount of Senior Secured Fixed Rate Notes and the Former Floating Rate Notes by the Company and the PIK Toggle Notes by JH-Holding Finance SA, the entering into the Super Senior Revolving Credit Facility and the application of the use of the proceeds from the offerings to repay all outstanding amounts under the Former Senior Credit Facility, to fund the acquisition by JHH Python GmbH of all rights under the Former JH-Holding Facility, to fund the acquisition of all preference shares in the Company then held by BWK GmbH Unternehmensbeteiligungsgesellschaft, to pay the costs in relation to the termination of interest rate swaps by the Company and certain of our subsidiaries and to pay all other costs, fees and expenses related to the offerings and the entering into the Super Senior Revolving Credit Facility are collectively herein referred to as the "**2015 Refinancing**".

In connection with the 2015 Refinancing, we recorded significant extraordinary expenses of €31.3 million in 2015, including transaction costs, advisory and professional fees, expenses related to the termination of interest rate swaps by certain of our subsidiaries and expenses from the reversal of accrued transaction costs (prepaid expenses) related to the termination of our Former Senior Credit Facility. As discussed in more detail under "*—Significant Accounting Policies—Effects of BilRUG*" below, the BilRUG required us to restate our financial information for the fiscal year ended December 31, 2016. Because the BilRUG abolished the income statement item "extraordinary net income/loss" and therefore also "extraordinary income" and "extraordinary expenses" as separate items, any items we might previously have recognized under "extraordinary income" or "extraordinary expenses", respectively, we are now required to recognize under either "other operating income" or "other operating expenses".

The CHP Acquisition

Effective as of midnight on December 31, 2015, we acquired Propower GmbH, the combined heat and power plant adjacent to our paper mill in Eisenhüttenstadt, Germany (the "**CHP**"), and certain related assets (such acquisition, the "**CHP Acquisition**") for an aggregate purchase price (subject to customary post-closing adjustments) of €185.5 million. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. The completion of the CHP Acquisition constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs.

Under the former contracting arrangement with EnBW, we were already closely involved in the operation of the CHP and already bore a significant portion of the economic risks associated with the operation of the CHP. For example, under the former contracting arrangement with EnBW, we were already responsible for supplying refuse-derived fuels and other fuels to the CHP, and we also bore the costs of disposing of the ash (*Ascheentsorgung*) generated by the CHP.

As of December 31, 2015, we had remaining (off-balance sheet) obligations of approximately €227 million under the former contracting arrangement with EnBW. Under the former contracting arrangement, we were required to make certain fee payments to EnBW, including approximately €42 million in annual payments as follows:

- annual payments of approximately €30 million (*Grundpreis I*), which were the equivalent of capital charges for the CHP and which included both a repayment component and an interest component with an implied interest rate of 10.4%;
- a flat annual fee of approximately €10 million (*Grundpreis II*) to cover the general operating costs of the CHP, including personnel expenses, repair and maintenance costs as well as insurance costs; and
- annual payments of approximately €2 million pursuant to a network access agreement, which similarly included components that were the equivalent of capital charges for the use of the network access ports linking PM2 to the public electricity grid (approximately €1.5 million) as well as a component that covered the general operating costs of the network access ports by an another affiliate of EnBW (approximately €0.3 million).

Prior to the CHP Acquisition, we recorded all these payments under cost of materials. Under the former contracting arrangement, the payments that covered the general operating expenses of the CHP and the network access ports, respectively, were inflation-adjusted, and we were required to make these fee payments, irrespective of any scheduled maintenance shutdowns or unscheduled shutdowns that individually last for less than eleven days. During 2015, we consequently bore the economic consequences of between five and six weeks of planned maintenance and additional unplanned shutdowns of the CHP each year, including the costs of our back-up arrangement for the supply of production steam with the nearby power plant.

All these payment obligations terminated upon termination of the former contracting arrangement following the completion of the CHP Acquisition and, therefore, did no longer reduce our EBITDA and cashflow effective January 1, 2016.

At the time of the CHP Acquisition, we estimated that we will make approximately €19 million in corresponding annual payments consisting of:

- approximately €12-13 million for personnel expenses, repair and maintenance costs and insurance costs, compared to the flat annual fee of approximately €10 million (Grundpreis II) we were previously charged under the former contracting arrangement with EnBW;
- approximately €1 million for certain capital investments; and
- interest expenses of approximately €5 million on the approximately €120 million of incremental indebtedness we incurred to fund the CHP Acquisition.

As a result, we expected potential annual net cash savings as a result of the CHP Acquisition of up to €23 million. However, following completion of the CHP Acquisition, we are now bearing certain additional risks associated with the ownership and operation of the CHP that were previously being borne by EnBW. In connection with a scheduled maintenance shutdown of the CHP in the third quarter of 2016, we discovered certain technical faults within the CHP that we were not previously aware of. See also "*Risk Factors—Risks Related to our Industry and our Business—We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisitio*n". Because of our long-term economic interest in the efficient and uninterrupted (except for necessary maintenance shutdowns we schedule on a regular basis) operation of the CHP, we decided to significantly extend the originally scheduled maintenance shutdown period to allow us to make certain repairs and replace certain faulty components, when EnBW might previously have decided to limit the shutdown and related capital expenditures to a bare minimum. This decision led to a significantly longer than scheduled maintenance shutdown of the CHP in the third and fourth quarters of 2016 and caused us to incur €16.0 million in "items of exceptional size or incidence", including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales. We took this decision in the expectation that it would reduce the risk of future unscheduled shutdowns related to the faulty components, which could have resulted in even higher costs in the future. Excluding the effects of the exceptional items related to the longer than scheduled shutdown, the CHP Acquisition would have resulted in *pro forma* net cash savings of approximately €35 million in 2016. There were no significant unscheduled shutdowns of the CHP in 2017. As a result, we estimate the CHP Acquisition resulted in net cash savings of approximately €40.8 million in 2017, compared to our former contracting arrangement with EnBW.

There can be no guarantee that our actual annual cash savings as a result of the CHP Acquisition in future periods will match our original estimated cash savings or our estimated net cash savings for 2017 or that we will be able to realize any cash savings as a result of the CHP Acquisition at all. For example, there can be no guarantee that the actual annual personnel expenses, repair and maintenance costs and insurance costs for the CHP will not be higher than previously estimated, that these expenses will not increase further in the future or that the actual requirements for capital investments per annum will not be higher than our previous estimate of approximately €1 million. In addition, the estimated cash savings described in the preceding paragraph do not reflect any potential tax effects from the CHP Acquisition, any potential future increases in the working capital requirements for operating the CHP. Actual interest expenses from debt

incurrence may also be higher than our current estimate. Furthermore, following completion of the CHP Acquisition, we became directly responsible for, and will bear all risks related to, the ownership and day-to-day operation of the CHP, which includes the risk of any further unexpected repair costs, the risk of any further significant unscheduled or longer than scheduled shutdowns of the CHP, the operational risks associated with the disposal of the ash generated by the CHP (*i.e.,* that we are unable to procure the proper disposal of the ash and may therefore be forced to shut down the CHP) as well as certain other operational and regulatory risks. The approximately €12-13 million for personnel expenses, repair and maintenance costs and insurance costs also do not represent all of the annual operating expenses for the CHP. In particular, they do not include certain costs and expenses we already bore under the former contracting arrangement with EnBW, such as the costs of fuel oil and the costs of ash disposal. There can be no guarantee that those other operating expenses will not also increase in the future. Finally, there can be no guarantee that we will not be required to make additional capital investments in the CHP in excess of the approximately €1 million in expected annual capital investments described above. See also "*Risk Factors—Risks Related to our Industry and our Business—We could be exposed to risks related to the CHP which have not been detected during the due diligence process preceding the CHP Acquisition*".

As a result of the CHP Acquisition, all rights and duties under the existing employment relationships with the CHP employees were, by operation of law, automatically be transferred to our then newly-acquired subsidiary Propower GmbH, including all obligations and liabilities with regard to any accrued pension, holiday and bonus entitlements as well as social security contributions, voluntary health insurance premiums and overtime payments/accounts owed to or on behalf of the CHP employees under the relevant employment agreements and/or collective bargaining agreements. Under the purchase agreement governing the CHP Acquisition, a subsidiary of EnBW agreed to hold Propower GmbH harmless for any such obligations or liabilities relating to the time prior to the transfer, while Propower GmbH agreed to hold the EnBW subsidiary harmless for any such obligations or liabilities relating to the time after the transfer.

KEY INCOME STATEMENT ITEMS

The following is a description of certain line items in our consolidated income statement.

Sales

Sales primarily include income derived from the sale of corrugated board and external sales of containerboard. We report sales as sales in Germany and sales abroad, respectively, based on the country in which the invoicing entity within the Group is located. As a result, this geographic split does not necessarily reflect the location of our customers. Other sales primarily include freight sales of Prologistik, for example, when we hire out trucks from our own fleet to avoid empty trips or to make use of opportunities in the freight market.

Beginning with the fiscal year ended December 31, 2016, relevant changes to German GAAP required us to reclassify certain items as "sales" that we would previously have classified as "other operating income". As a result of this required reclassification, our sales for the fiscal year ended December 31, 2016 also included income from the use of refuse-derived fuel at the CHP adjacent to our paper mill in Eisenhüttenstadt (i.e., income for the disposal and thermal utilization (incineration) of treated waste supplied by external suppliers) and income from the passing through to Sales & Solutions GmbH of the cost of gas for the production of steam for our paper machine PM1. In our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016, we elected not to retroactively adjust our sales and other operating income in the prior period information. Instead, we have included relevant explanatory information in the notes to our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*".

Increase/(decrease) in finished goods and work in process

Increase/(decrease) in finished goods and work in process records the increase/(decrease) in finished goods and work in process at manufacturing cost. The manufacturing costs include direct material and labor costs as well as material and production overheads allocated proportionally on the assumption of normal utilization of production capacity.

Other operating income

Other operating income consists of all income from ordinary business activities not already recognized under other income items. Other operating income includes, among other things, income from investment subsidies, income from other periods, income from the release of provisions, refunds of energy tax, income from insurance refunds from damage events, income from reduction of bad debt allowance, and exchange rate gains. For the fiscal year ended December 31, 2015, other operating income also included income from the use of refuse-derived fuel at the CHP adjacent to our paper

mill in Eisenhüttenstadt, *i.e.*, income for the disposal and thermal utilization (incineration) of treated waste supplied by external suppliers and income from the passing through to Sales & Solutions GmbH of the cost of gas for the production of steam for our paper machine PM1. In accordance with the new definition of "sales" introduced by the BilRUG, we were required to reclassify those items as "sales" for all periods beginning after December 31, 2015. The cost of steam as well as the original cost of gas are unaffected by the required reclassification under the BilRUG, and we continue to record them in cost of purchased services under cost of materials. In our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016, we elected not to restate our sales and other operating income in the prior period information. Instead, we have included relevant explanatory information in the notes to our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016. Beginning with the fiscal year ended December 31, 2016, changes introduced to German GAAP under the BilRUG also required us to reclassify as other operating income those items we previously reported under a separate line item as "extraordinary income" in prior periods, such as items that constitute one-off income not related to our ordinary business, for example, reversal of provision for tax risks of €2.8 million, which we reported as "extraordinary income" in our audited consolidated financial statements for the fiscal year ended December 31, 2015. With regard to this particular change, the BilRUG did require us to restate our financial information for the corresponding prior-year period in our audited consolidated financial statements for the fiscal year ended December 31, 2016. See also "*—Significant Accounting Policies—Effects of BilRUG*" below. In 2017, we also reclassified the waste water related costs of our paper machine PM1 and the CHP as "water and waste water treatment expenses" from "others". As a result, the water and water waste treatment expenses for the year ended December 31, 2016 as previously reported and presented under "*—Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015*" below differ slightly from the corresponding figures presented under "*—Financial Year Ended December 31, 2017 Compared to Financial Year Ended December 31, 2016*" and elsewhere in this annual report.

Cost of materials

Cost of materials consists of costs of raw materials, consumables and supplies and purchased goods such as recycled paper, externally purchased containerboard, costs of chemicals, costs for auxiliary materials as well as pallet costs. It also includes costs of purchased services, including energy (*i.e.*, for electricity, gas and steam) and costs of waste disposal. Prior to the completion of the CHP Acquisition effective as of midnight on December 31, 2015, we made certain fee payments to EnBW pursuant to our former framework and ancillary agreements with EnBW for the operation of the CHP, including, among other fees, approximately €30 million in annual payments, which were the equivalent of capital charges for the CHP. We recorded these payments under cost of materials. Following the completion of the CHP Acquisition, these payments do no longer reduce our EBITDA. The approximately €30 million in annual payments included €28.0 million in 2015 of base price 1 (*Grundpreis 1*) payments. See also "*—Key Factors affecting our Results of Operations—The CHP Acquisition*" above.

Personnel expenses

Personnel expenses include all expenses for wages and salaries (including bonuses) and other employment benefits, contributions to pension plans and social security contributions. Personnel expenses also include the costs of hiring new personnel and training costs.

Other operating expenses

Other operating expenses primarily include freight expenses (34.4% of total other operating expenses in the year ended December 31, 2015, 39.6% of total other operating expenses in 2016 and 38.4% of total other operating expenses in 2017), maintenance costs, costs of replacing paper machine clothings, other production costs, expenses for external labor, waste water treatment costs, expenses from exchange rate differences, rental and leasing costs, legal and consulting expenses and expenses from other periods. In 2016, we re-classified certain accounts within operating expenses in further development of our investor reporting. As a result, freight expenses and expenses for maintenance and repair for the year ended December 31, 2015 as previously reported differ slightly from the corresponding figures presented under "*—Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015*" below and elsewhere in this annual report. In addition, beginning with the fiscal year ended December 31, 2016, changes introduced to German GAAP under the BilRUG required us to reclassify as other operating expenses those items we previously reported under a separate line item as "extraordinary expenses" in prior periods. "Extraordinary expenses" in 2015 consisted of one-off expenses not related to our ordinary business and related to our refinancing measures (€31.3 million) and to the CHP Acquisition (€6.9 million). See also "*—Significant Accounting Policies—Effects of BilRUG*" below.

Amortization and depreciation of fixed intangible and tangible assets

We incur expense for depreciation and amortization of property, plant and equipment and intangible fixed assets as a result of both scheduled depreciation and impairment losses on these assets. Depreciation and amortization are usually charged on a straight-line basis over the expected useful life of the assets.

Interest income/(expenses), net

Interest income/(expenses), net includes other interest and similar income as well as interest and similar expenses. Interest and similar expenses primarily include interest expense and other financing costs related to long-term loans, short-term bank liabilities as well as bank and bank guarantee provisions.

Extraordinary net income/(loss)

Extraordinary net income/(loss) comprise one-off income and expenses not related to our ordinary business. The extraordinary expenses mainly relate to our restructuring and refinancing measures. In connection with the implementation of the changes introduced by the BilRUG, we made certain changes to the presentation of our income statement for all periods beginning after December 31, 2015. As a result, we do not report "profit/loss on ordinary activities" and "extraordinary net income/loss" separately anymore. See also "*—Significant Accounting Policies—Effects of BilRUG*" below.

Taxes

Taxes comprise trade taxes, corporate taxes, foreign taxes, deferred taxes as well as other taxes, such as taxes on substance (mainly real estate taxes as well as motor vehicle taxes).

RESULTS OF OPERATIONS

Financial Year Ended December 31, 2017 Compared to Financial Year Ended December 31, 2016

The following table sets out certain information with respect to our audited consolidated income statement for the financial years ended December 31, 2016 and December 31, 2017:

	Year ended December 31,		
	2016	2017	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales	**733,228**	**804,256**	**9.7**
Increase/(decrease) in finished goods and work in process	(6,554)	10,298	—
Other operating income[1]	14,713	17,603	19.6
Other own work capitalized	1,116	2,637	136.3
Total output (unaudited)[2]	**742,502**	**834,795**	**12.4**
Cost of materials	(371,550)	(430,481)	15.9
Gross profit (unaudited)[3]	**370,952**	**404,314**	**9.0**
Personnel expenses	(61,423)	(68,326)	11.2
Other operating expenses[1]	(154,293)	(160,425)	4.0
EBITDA (unaudited)[4]	**154,679**	**180,354**	**16.6**
Amortization and depreciation of fixed intangible and tangible assets	(47,372)	(50,032)	5.6
Other interest and similar income	144	65	(54.9)
Interest and similar expenses	(25,334)	(23,678)	(6.5)
Taxes on income	(19,793)	(28,058)	41.8
Earnings after taxes	**62,883**	**73,861**	**17.5**
Other taxes	(1,479)	(1,449)	(2.0)
Consolidated net income/(net loss) for the period	**61,404**	**72,412**	**17.9**
Consolidated unappropriated retained earnings brought forward	117,062	120,947	3.3
Consolidated net retained profits	**178,465**	**193,358**	**8.3**

(1) In response to certain changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we do not report "income/(loss) on ordinary activities" and "extraordinary net income/(loss)" separately anymore. As a result, effective as of January 1, 2016, we report as "other operating income" and "other operating expenses" certain items we would previously have reported as "extraordinary income" and "extraordinary expenses", as applicable. "Other operating expenses" for the fiscal years ended December 31, 2016 and 2017 as presented in the table above includes €0.9 million and €6.2 million, respectively, we would previously have reported as "extraordinary expenses".

(2) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.

(3) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.

(4) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence", which is a new concept under German GAAP introduced by the BilRUG. See also footnote (1) above as well as "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*". Excluding the negative effect of €16.0 million in "items of exceptional size or incidence" (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million.

Sales

Total sales increased significantly by €71.0 million or 9.7%, from €733.2 million in 2016 to €804.3 million in 2017 due to further strong growth of our corrugated board sales as a result of both higher sales volumes and higher average price levels in 2017 compared to 2016. Total corrugated board sales increased by €74.7 million or 12.7% in 2017 compared to 2016, significantly in excess of general market growth. Corrugated board sales volumes increased by approximately 81,000 tons, from approximately 930,000 tons in 2016 to approximately 1,011,000 tons in 2017. This significant increase in sales volumes was attributable to (i) the successful ramp-up at our corrugated board production site (PW9) in Plössberg, Germany during 2016 and 2017 following commencement of commercial production in October 2015, (ii) the quick and successful (but ongoing) ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland following commencement of commercial production in April 2017, (iii) our ongoing efforts to improve the effectiveness of our sales and marketing activities as part of our Continuous Improvement Program as well as (iv) our continuing efforts to further optimize production of our Prowell plants. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Expansion Projects and Investment Program*" above. Our total containerboard sales volume decreased by approximately 24,000 tons or 2.3%, from approximately 1,042,000 tons in 2016 to approximately 1,018,000 tons in 2017, primarily due to capacity constraints imposed on the operation of our paper machine (PM2) in Eisenhüttenstadt as a result of certain technical limitations of the local waste water treatment plant. The trend towards lighter containerboard impacted the production program of PM2 and led to a substitution of standard weight grades through super-light-weight containerboard. The lower output of super-light-weight containerboard in tons per hour is in general offset by higher sales prices. External sales of containerboard decreased by approximately 62,000 tons or 20.4% from approximately 304,000 tons in 2016 to approximately 242,000 tons in 2017 as we managed to further increase the share of internal containerboard sales to Prowell through further improved utilization of our existing corrugated board production sites, the successful ramp-up at our corrugated board production site (PW9) in Plössberg, Germany as well as the quick and successful (but ongoing) ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland. During the course of 2017, price levels for both corrugated board and containerboard increased significantly, which also had a positive impact on our total sales in 2017. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations— Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs —Fluctuations in Raw Material Costs*" above.

The following table shows our sales by geographic origin and by product:

	Year ended December 31,		
	2016	2017	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales in Germany (origin) (unaudited)	**455,362**	**484,291**	**6.4**
Corrugated board	311,380	343,957	10.5
Containerboard	114,256	99,729	(12.7)
Other	29,726	40,605	36.6
Sales abroad (origin)	**277,866**	**319,965**	**15.2**
Corrugated board	277,866	319,965	15.2
Containerboard	—	—	—
Other	—	—	—
Total sales	**733,228**	**804,256**	**9.7**

In 2017, sales in Germany accounted for 60.2% of total sales compared to 62.1% of total sales in 2016. Sales in Germany increased by €28.9 million or 6.4%, from €455.4 million in 2016 to €484.3 million in 2017, primarily due to a €32.6 million or 10.5% increase in corrugated board sales for the reasons described above. External sales of containerboard in Germany decreased by €14.5 million or 12.7%, other sales in Germany increased by €10.9 million or 36.6%, primarily as a result of sales of electricity produced by the CHP. Corrugated board sales abroad also increased by €42.1 million or 15.2%, from €277.9 million in 2016 to €320.0 million in 2017 for the reasons described above.

	Year ended December 31,		
	2016	2017	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Corrugated board (unaudited)	589,246	663,922	12.7
Containerboard	114,256	99,729	(12.7)
Other	29,726	40,605	36.6
Total sales	**733,228**	**804,256**	**9.7**

Total corrugated board sales increased by €74.7 million or 12.7% in 2017 compared to 2016, due to the €32.6 million increase in sales in Germany and €42.1 million increase in sales abroad. External sales of containerboard decreased by €14.5 million or 12.7%, from €114.3 million in 2016 to €99.7 million in 2017, while other sales increased by €10.9 million or 36.6%, from €29.7 million in 2016 to €40.6 million in 2017. Increased sales of electricity produced by the CHP, which where negatively affected by the longer than scheduled CHP shutdown in 2016, also contributed to the increase in other sales. As a result, corrugated board sales as a percentage of total sales further increased from 80.4% in 2016 to 82.6% in 2017, while containerboard sales as a percentage of total sales further decreased from 15.6% in 2016 to 12.4% in 2017.

Increase/(decrease) in finished goods and work in process

Primarily due to higher stocks of containerboard as work in process in 2017, our finished goods and work in progress increased by €10.3 million in 2017.

Other operating income

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited, unless otherwise stated)		
	(€ in thousands)		**(%)**
Investment subsidies	252	252	0.0
Income from other periods	11,204	12,567	12.2
Exchange rate differences	1,920	3,930	104.7
Other income (unaudited)	1,337	854	(36.1)
Other operating income	**14,713**	**17,603**	**19.6**

Other operating income increased by €2.9 million or 19.6% from €14.7 million in 2016 to €17.6 million in 2017, mainly as a result of higher income from exchange rate differences which increased by €2.0 million or 104.7%, from €1.9 million in 2016 to €3.9 million in 2017. Income from other periods also increased by €1.4 million or 12.2%, from €11.2 million in 2016 to €12.6 million in 2017, primarily due to a different timing of refunds for grid charges and energy taxes.

Income from investment subsidies amounted to €0.3 million in 2016 and €0.3 million in 2017 and relates to subsidies we received in connection with the construction of our corrugated board production sites in Schüttorf and Plössberg (both Germany) and which we recognize as other operating income in line with the depreciation of the relevant assets over a period of up to 33 years.

Cost of materials

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited)		
	(€ in thousands)		**(%)**
Cost of raw materials, consumables and supplies	309,632	361,659	16.8
Cost of purchased services	61,918	68,822	11.2
Cost of materials	**371,550**	**430,481**	**15.9**

Cost of materials increased significantly by €58.9 million or 15.9%, from €371.6 million in 2016 (50.7% of sales, or 50.0% of total output) to €430.5 million in 2017 (53.5% of sales, or 51.6% of total output), mainly as a result of a significant increase in the cost of raw materials, consumables and supplies. The main drivers for this increase were predominantly volume based higher costs for externally purchased containerboard, both of a result of the increase in corrugated board sales volumes and higher containerboard prices, and significantly higher prices for recycled paper. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Cyclical Nature of our Industry and Movement in Market Prices, Raw Materials and Input Costs—Fluctuations in Raw Material Costs*" above.

The cost of purchased services also increased significantly by €6.9 million or 11.2%, from €61.9 million in 2016 to €68.8 million in 2017, due to the reclassification (in 2017 only) of costs for disposal of ash and rejects from cost of raw materials, consumables and supplies to cost of purchased services to. These costs amounted to €6.8 million in 2016 and €7.8 million in 2017.

Costs for freight brokerage at Prologistik (€10.3 million in 2017 compared to €10.1 million in 2016) and energy costs (i.e. electricity, gas and steam), which amounted to €50.5 million in 2017 and €50.5 million in 2016, remained largely stable, while other external services purchased decreased to €0.1 million in 2017 compared to €1.3 million in 2016, due to the reclassification (in 2017 only) of the cost of services for cleaning and surveillance to other operating costs.

Gross profit

Gross profit increased by €33.4 million or 9.0%, from €371.0 million (50.6% of sales, or 50.0% of total output) in 2016 to €404.3 million (50.3% of sales, or 48.4% of total output) in 2017. This increase of our gross profit is primarily due to the increase in sales volumes of corrugated board and higher margins in both our containerboard and corrugated board business.

Personnel expenses

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited)		
	(€ in thousands)		**(%)**
Wages and salaries	(52,627)	(58,294)	10.8
Social security and pensions	(8,795)	(10,032)	14.1
—of which for pension expenses:	*(134)*	(258)	92.5
Personnel expenses	**(61,423)**	**(68,326)**	**11.2**

Personnel expenses in 2017 increased by €6.9 million or 11.2%, from €61.4 million in 2016 to €68.3 million in 2017, reflecting a €5.7 million or 10.8% increase in wages and salaries and a €1.2 million or 14.1% increase in social security and pensions. These increases were due to (i) a 6.3% increase in the average number of employees (from 978 in 2016 to 1,040 in 2017), primarily related in the hiring of new employees in connection with the launch and subsequent ramp-up at our corrugated board production sites PW10 and PW11 in Trzcinica, Poland and Drizzona, Italy and a slight increase in the number of overhead group positions and (ii) regular annual salary and wage increases.

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited)		**(%)**
Administrative employees	230	248	7.8
Factory workers	748	792	5.9
Average number of employees	**978**	**1,040**	**6.3**

Both the average number of administrative employees and the average number of factory workers increased from 230 and 748, respectively, in 2016 to 248 and 792, respectively, in 2017. The increase in the number of employees related primarily to the launch and subsequent ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland and the hiring of new employees for our newest corrugated board production site (PW11) in Drizzona, Italy.

Other operating expenses

	Year ended December 31, 2016	Year ended December 31, 2017	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Expenses from exchange rate differences	(3,405)	(3,340)	(1.9)
Expenses from other periods	(2,548)	(1,935)	(24.1)
Maintenance and repair (unaudited)	(46,885)	(41,405)	(11.7)
Freight expenses (unaudited)	(61,174)	(61,653)	0.8
Paper machine clothings (unaudited)	(5,740)	(6,557)	14.2
Rental and leasing costs	(6,396)	(6,624)	3.6
Water and waste water treatment expenses (unaudited)[1]	(6,044)	(7,222)	19.5
Legal and consulting fees (unaudited)	(2,672)	(2,571)	(3.8)
Extraordinary expenses	(921)	(6,240)	577.5
Others (unaudited)[1]	(18,507)	(22,878)	23.6
Other operating expenses	**(154,293)**	**(160,425)**	**4.0**

(1) Relevant figures for the year ended December 31, 2016 differ slightly from the corresponding figures presented for the same year in the table as included under "*—Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015—Other operating expenses*" because we reclassified certain accounts within operating expenses in further development of our investor reporting.

Other operating expenses increased slightly by €6.1 million or 4.0%, from €154.3 million in 2016 to €160.4 million in 2017, mainly due to significantly higher extraordinary expenses, partly offset by significantly lower expenses for maintenance and repair.

In connection with the implementation of the changes introduced by the BilRUG, we were required to report as other operating expenses those items we previously reported under a separate line item as "extraordinary expenses" in prior periods. See also "*—Key Income Statement Items—Other Operating Expenses*" above. Extraordinary expenses significantly increased by €5.3 million or 577.5%, from €0.9 million in 2016 to €6.2 million in 2017, primarily as a result of extraordinary expenses we incurred in connection with the offering of the Senior Secured Floating Rate Notes in March 2017 and in connection with the amendments of the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities and the entry into the Senior Secured EUR Facility and the Senior Secured GBP Facility in December 2017.

Water and waste water treatment expenses increased by €1.2 million or 19.5%, from €6.0 million in 2016 to €7.2 million in 2017, mainly due to higher fees for waste water treatment at our paper machine (PM2) in Eisenhüttenstadt, Germany. Freight expenses increased slightly by €0.5 million or 0.8%, from €61.2 million in 2016 to €61.7 million in 2017, due to the higher sales volume. Rental and leasing costs increased slightly by €0.2 million or 3.6%, from €6.4 million in 2016 to €6.6 million in 2017 and expenses for paper machine clothings increased by €0.8 million or 14.2%, due to higher requirements to replace paper machine clothings at our paper machine (PM2) in Eisenhüttenstadt, Germany. Finally, "others" increased by €4.4 million or 23.6%, from €18.5 million in 2016 to €22.9 million in 2017, primarily due to (i) the reclassification (in 2017 only) of the cost of services for cleaning and surveillance as "other operating expenses" from "costs of purchased services" within "cost of materials" and (ii) costs incurred in connection with our 25-year anniversary.

Expenses for maintenance and repair decreased by €5.5 million or 11.7%, from €46.9 million in 2016 to €41.4 million in 2017, primarily due to the longer than scheduled maintenance shutdown of the CHP in 2016, while expenses from other periods decreased by €0.6 million or 24.1%, mainly due to scrapping of fixed assets. Legal and consulting fees also decreased by €0.1 million or 3.8% from €2.7 million in 2016 to €2.6 million in 2017.

EBITDA

	Year ended December 31, 2016	Year ended December 31, 2017	Change
	(unaudited) (€ in thousands)		(%)
EBITDA[1]	154,679	180,354	16.6

(1) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence", which is a new concept under German GAAP introduced by the BilRUG. See also "*—Significant Accounting Policies—Effects of BilRUG*" below.

Our EBITDA increased by €25.7 million or 16.6% from €154.7 million in 2016 (21.1% of sales) to €180.4 million in 2017 (22.4% of sales), as a result of the factors described above. Excluding the negative effect of €16.0 million in "items of exceptional size or incidence" (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million (23.2% of sales).

Amortization and depreciation of fixed intangible and tangible assets

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited)		
	(€ in thousands)		**(%)**
Depreciation on intangible assets	(2,856)	(2,821)	(1.2)
Depreciation on tangible assets	(44,516)	(47,212)	6.1
Total amortization and depreciation of fixed intangible and tangible assets	**(47,372)**	**(50,032)**	**5.6**

Amortization and depreciation expenses increased by €2.7 million or 5.6% from €47.4 million in 2016 to €50.0 million in 2017. This increase was primarily due to (i) amortization charges with regard to our corrugated production site in (PW10) in Trzcinica, Poland (which commenced production in April 2017), (ii) one-off amortization charges we recognized on parts of a used corrugator we were not able to use (as originally planned) in connection with the establishment of our newest corrugated board production site (PW11) in Drizzona, Italy, as well as (iii) certain maintenance capital expenditure in 2017.

Interest income/(expenses), net

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited, unless otherwise stated)		
	(€ in thousands)		**(%)**
Other interest and similar income	144	65	(54.9)
Interest and similar expenses	(25,334)	(23,678)	(6.5)
Interest income/(expenses), net (unaudited)	**(25,190)**	**(23,613)**	**(6.3)**

Our net interest expense in 2017 decreased by €1.6 million or 6.3% from net expenses of €25.2 million in 2016 to net expenses of €23.6 million in 2017. This decrease was almost entirely due to a decrease in interest and similar expenses by €1.7 million or 6.5% from €25.3 million in 2016 to €23.7 million in 2017, due to lower average interest rates and notwithstanding higher average gross debt in 2017 than in 2016. Liabilities represented by bonds and bank loans were €495 million and €42.5 million, respectively, as of December 31, 2017 compared to liabilities represented by bonds and bank loans of €420 million and €26.3 million, respectively, as of December 31, 2016.

Taxes

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited, unless otherwise stated)		
	(€ in thousands)		**(%)**
Taxes on income	(19,793)	(28,058)	41.8
Other taxes	(1,479)	(1,449)	**(2.0)**
Total taxes (unaudited)	**(21,272)**	**(29,507)**	**38.7**

Total taxes increased significantly by €8.2 million or 38.7%, from €21.3 million in 2016 to €29.5 million in 2017. Total taxes mainly include trade tax and corporate income tax for the current financial year. Furthermore, total taxes include deferred payments of trade tax and corporate tax for previous years, which amounted to €8 thousand in 2017 and expenses arising from the adjustment of deferred tax assets, which amounted to €4.2 million in 2017.

Consolidated net income/(net loss)

	Year ended December 31,		
	2016	**2017**	**Change**
	(audited)		
	(€ in thousands)		**(%)**
Consolidated net income/(loss) for the period	**61,404**	**72,412**	**17.9**
Consolidated unappropriated retained earnings brought forward	117,062	120,947	3.3
Consolidated net retained profits	**178,465**	**193,358**	**8.3**

Consolidated net income/(loss) for the period increased by €11.0 million or 17.9% from a profit of €61.4 million in 2016 to a profit of €72.4 million in 2017. This was the result of the factors described above.

Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015

The following table sets out certain information with respect to our audited consolidated income statement for the financial years ended December 31, 2015 and December 31, 2016:

	Year ended December 31,		
	2015[1]	2016	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales[2]	**689,940**	**733,228**	**6.3**
Increase/(decrease) in finished goods and work in process	3,812	(6,554)	—
Other operating income[3]	43,489	14,713	(66.2)
Other own work capitalized	930	1,116	20.0
Total output (unaudited)[4]	**738,171**	**742,502**	**0.6**
Cost of materials	(385,454)	(371,550)	(3.6)
Gross profit (unaudited)[5]	**352,717**	**370,952**	**5.2**
Personnel expenses	(56,838)	(61,423)	8.1
Other operating expenses[3]	(176,800)	(154,293)	(12.7)
EBITDA (unaudited)[6]	**152,861**	**154,679**	**1.2**
Amortization and depreciation of fixed intangible and tangible assets	(29,419)	(47,372)	61.0
Other interest and similar income	150	144	(3.7)
Interest and similar expenses	(21,881)	(25,334)	15.8
Taxes on income	(11,775)	(19,793)	68.1
Earnings after taxes	**56,154**	**62,883**	**12.0**
Other taxes	(1,749)	(1,479)	(15.5)
Consolidated net income/(net loss) for the period	**54,405**	**61,404**	**12.0**
Consolidated unappropriated retained earnings brought forward	68,879	117,062	70.0
Consolidated net retained profits	**123,284**	**178,465**	**44.8**

(1) The financial information for the fiscal year ended December 31, 2015 as shown in this table and the subsequent discussions differs from the financial information included in our audited consolidated financial statements for the fiscal year ended December 31, 2015. To ensure comparability with our financial information for the fiscal year ended December 31, 2016, we have presented the prior-period information for the fiscal year ended December 31, 2015 as presented in our audited consolidated financial statements for the fiscal year ended December 31, 2016. In particular, "other operating income" and "other operating expenses" for the fiscal year ended December 31, 2015 have been retroactively adjusted to include all relevant items we had previously reported as "extraordinary income" and "extraordinary expenses", as applicable. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*".

(2) Beginning with the fiscal year ended December 31, 2016, relevant changes to German GAAP required us to reclassify certain items as "sales" that we would previously have classified as "other operating income". As a result of this required reclassification, our sales for the fiscal year ended December 31, 2016 also included income from the use of refuse-derived fuel at the CHP adjacent to our paper mill in Eisenhüttenstadt (i.e., income for the disposal and thermal utilization (incineration) of treated waste supplied by external suppliers) and income from the passing through to Sales & Solutions GmbH of the cost of gas for the production of steam for our paper machine PM1. In 2015, we reported €17.1 million of income in relation to these items as "other operating income".

(3) In response to certain changes to German GAAP with regard to the preparation of financial information for any period beginning after December 31, 2015, we do not report "income/(loss) on ordinary activities" and "extraordinary net income/(loss)" separately anymore. As a result, effective as of January 1, 2016, we report as "other operating income" and "other operating expenses" certain items we would previously have reported as "extraordinary income" and "extraordinary expenses", as applicable. To ensure comparability with our financial information for the fiscal year ended December 31, 2016, the financial information for the fiscal year ended December 31, 2015 as shown in this table reflects the prior-period information for the fiscal year ended December 31, 2015 as presented in our audited consolidated financial statements for the fiscal year ended December 31, 2016. "Other operating income" for the fiscal year ended December 31, 2015 as presented in the table above includes €2.8 million we would previously have reported as "extraordinary income". "Other

operating expenses" for the fiscal years ended December 31, 2015 and 2016 as presented in the table above includes €38.3 million and €0.9 million, respectively, we would previously have reported as "extraordinary expenses".

(4) Total output (not a German GAAP measure) is calculated as the sum of sales, increase/(decrease) in finished goods and work in process, other operating income and other own work capitalized.

(5) Gross profit (not a German GAAP measure) is calculated by deducting cost of materials from total output.

(6) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP, which have resulted in certain changes to the presentation of our financial information for the fiscal years ended December 31, 2015 and 2016 in the table above, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence", which is a new concept under German GAAP introduced by the BilRUG. See also footnotes (1) and (2) above as well as "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Significant Accounting Policies—Effects of BilRUG*". Excluding the negative effect of €16.0 million in "items of exceptional size or incidence" (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million.

Sales

Total sales increased by €43.3 million or 6.3%, from €689.9 million in 2015 to €733.2 million in 2016. This increase in sales was primarily attributable to a significant increase in corrugated board sales in Germany which significantly exceeded general market growth. Total corrugated board sales increased by €42.0 million or 7.7% in 2016 compared to 2015. Corrugated board sales volumes increased by approximately 93,000 tons, from approximately 837,000 tons in 2015 to approximately 930,000 tons in 2016. The sales volume increase was attributable to (i) our ongoing efforts to improve the effectiveness of our sales and marketing activities as part of our Continuous Improvement Program as well as (ii) our continuing efforts to further optimize production of our Prowell plants as well as the continuing ramp-up at our corrugated board production site (PW9) in Plössberg, Germany. Our total containerboard sales volume increased by approximately 16,000 tons or 1,56%, from approximately 1,026,000 tons in 2015 to approximately 1,042,000 tons in 2016, primarily due to additional internal sales of containerboard. The trend towards lighter containerboard impacted the production program of PM2 and led to a substitution of standard weight grades through super-light-weight containerboard. The lower output of super-light-weight containerboard in tons per hour is in general offset by higher sales prices. External sales of containerboard decreased by approximately 42,000 tons or 12.19% from approximately 346,000 tons in 2015 to approximately 304,000 tons in 2016 as we managed to further increase the share of internal containerboard sales to Prowell through further improved utilization of our existing corrugated board production sites and the ramp-up at our corrugated board production site (PW9) in Plössberg, Germany. During the course of 2016, corrugated board and containerboard price levels normalized, i.e. decreased slightly from 2015 price levels.

The following table shows our sales by geographic origin and by product:

	Year ended December 31,		
	2015	2016	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Sales in Germany (origin) (unaudited)	**408,520**	**455,362**	**11.5**
Corrugated board	265,840	311,380	17.1
Containerboard	132,367	114,256	(13.7)
Other	10,313	29,726	188.2
Sales abroad (origin)	**281,420**	**277,866**	**(1.3)**
Corrugated board	281,420	277,866	(1.3)
Containerboard	—	—	—
Other	—	—	—
Total sales	**689,940**	**733,228**	**6.3**

In 2016, sales in Germany accounted for 62.1% of total sales compared to 59.2% of total sales in 2015. Sales in Germany increased by €46.8 million or 11.5%, from €408.5 million in 2015 to €455.4 million in 2016, primarily due to a €45.5 million or 17.1% increase in corrugated board sales for the reasons described above. External sales of containerboard in Germany decreased by €18.1 million or 13.7%, other sales in Germany increased by €19.4 million or 188.2%, primarily as a result of sales of electricity produced by the CHP and the effects of the implementation of the BilRUG and related reclassification of certain items as "sales" that we would previously have classified as other operating income. In our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016, we elected not to restate our sales and other operating income in the prior period information. Instead, we have included relevant explanatory information in the notes to our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016. As a result, "other sales" for the fiscal year ended December 31, 2015, as shown in the tables above and below, do not reflect €17.1 million in "other operating income" we would have been required to classify as "sales" if we had retro-actively applied the BilRUG. See also "*—Key Income Statement Items—Other Operating Income*" above. Corrugated board sales abroad slightly decreased by €3.6 million or 1.3%, from €281.4 million in 2015 to €277.9 million in 2016.

	Year ended December 31,		
	2015	2016	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Corrugated board (unaudited)	547,260	589,246	7.7
Containerboard	132,367	114,256	(13.7)
Other	10,313	29,726	188.2
Total sales	**689,940**	**733,228**	**6.3**

Total corrugated board sales increased by €42.0 million or 7.7% in 2016 compared to 2015, due to the €45.5 million increase in sales in Germany which was only partly offset by the €3.6 million decrease in sales abroad. External sales of containerboard decreased by €18.1 million or 13.7%, from €132.4 million in 2015 to €114.3 million in 2016, while other sales increased by €19.4 million or 188.2%, from €10.3 million in 2015 to €29.7 million in 2016, primarily as a result of the implementation of the BilRUG and related reclassification of certain items as "other sales" that we would previously have classified as "other operating income" (€17.1 million for 2015) as described above. Sales of electricity produced by the CHP also contributed to the increase in other sales. As a result, corrugated board sales as a percentage of total sales slightly increased from 79.3% in 2015 to 80.4% in 2016, while containerboard sales as a percentage of total sales decreased from 19.2% in 2015 to 15.6% in 2016.

Increase/(decrease) in finished goods and work in process

Primarily due to lower stocks of containerboard as work in process in 2016, our finished goods and work in progress decreased by €6.6 million in 2016.

Other operating income

	Year ended December 31,		
	2015	2016	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Investment subsidies	383	252	(34.2)
Income from other periods	15,216	11,204	(26.4)
Income from passing through the cost of gas to Sales & Solutions GmbH (unaudited)	10,887	—	—
Income from sales of refuse-derived fuel and fuel oil to Propower GmbH (unaudited)	5,334	—	—
Exchange rate differences	5,521	1,920	(65.2)
Extraordinary Income	2,810	—	—
Other income (unaudited)	3,338	1,337	(59.9)
Other operating income	**43,489**	**14,713**	**(66.2)**

Other operating income decreased by €28.8 million or 66.2% from €43.5 million in 2015 to €14.7 million in 2016, mainly as a result of the implementation of the BilRUG. Among other changes, the BilRUG required us to reclassify income from passing through the cost of gas and income from sales of refuse-derived fuel, which is now classified as "other sales" within the income statement item "sales". See also "*—Key Income Statement Items—Other Operating Income*" above.

Income from sales of gas results from passing through to Sales & Solutions GmbH the costs of gas for the production of steam for our paper machine PM1. The costs of steam as well as the original costs of gas are included in cost of purchased services under cost of materials.

Income from other periods decreased by €4.0 million or 26.4% and mainly included reversal of provisions as well as refunds of energy costs related taxes and fees. Income from investment subsidies decreased by €0.1 million or 34.2% from €0.4 million in 2015 to €0.3 million in 2016 and relate to subsidies we received in connection with the construction of our corrugated board production sites in Schüttorf and Plössberg (both Germany) and which we recognize as other operating income in line with the depreciation of the relevant assets over a period of up to 33 years.

Cost of materials

	Year ended December 31,		
	2015	**2016**	**Change**
	(audited)		
	(€ in thousands)		**(%)**
Cost of raw materials, consumables and supplies	275,326	309,632	12.5
Cost of purchased services	110,128	61,918	(43.8)
Cost of materials	**385,454**	**371,550**	**(3.6)**

Cost of materials decreased slightly by €13.9 million or 3.6%, from €385.5 million in 2015 (55.9% of sales, or 52.2% of total output) to €371.6 million in 2016 (50.7% of sales, or 50.0% of total output). This slight decrease was the result of a significant decrease in the cost of purchased services by €48.2 million or 43.8%, due to significantly lower energy costs as a result of completion of the CHP Acquisition, and an almost offsetting increase of €34.3 million or 12.5% in the cost of raw materials, consumables and supplies as a result of (i) increases in prices for recycled paper throughout the first three quarters of 2016, before prices decreased slightly in the fourth quarter of 2016, (ii) higher costs for externally purchased containerboard as well as (iii) higher costs for ash disposal. The average price we paid for recycled paper was €130 per ton in 2016, compared to €119 per ton in 2015.

The cost of purchased services significantly decreased by €48.2 million or 43.8%, from €110.1 million in 2015 to €61.9 million in 2016. Higher costs for freight brokerage at Prologistik (€10.1 million in 2016 compared to €7.0 million in 2015) were offset by lower energy costs (i.e. electricity, gas and steam), which amounted to €50.5 million in 2016 compared to €101.7 million in 2015, and stable other external services purchased (€1.3 million in 2016 compared to €1.3 million in 2015).

Gross profit

Gross profit increased by €18.2 million or 5.2%, from €352.7 million (51.1% of sales, or 47.8% of total output) in 2015 to €371.0 million (50.6% of sales, or 50.0% of total output) in 2016. This increase of our gross profit is primarily due to the increase in sales volumes of corrugated board and the lower energy costs as a result of the completion of the CHP Acquisition.

Personnel expenses

	Year ended December 31,		
	2015	**2016**	**Change**
	(audited)		
	(€ in thousands)		**(%)**
Wages and salaries	(48,161)	(52,627)	9.3
Social security and pensions	(8,677)	(8,795)	1.4
—of which for pension expenses:	*(239)*	*(134)*	*(43.9)*
Personnel expenses	**(56,838)**	**(61,423)**	**8.1**

Personnel expenses in 2016 increased by €4.6 million or 8.1%, from €56.8 million in 2015 to €61.4 million in 2016, reflecting a €4.5 million or 9.3% increase in wages and salaries and a €0.1 million or 1.4% increase in social security and pensions. These increases were due to (i) a 7.5% increase in the average number of employees (from 910 in 2015 to 978 in 2016), primarily as a result of the CHP Acquisition and the hiring of employees in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland, (ii) salary and wage increases, and (iii) higher variable compensation payments for workers at our various production sites related to our improved operational performance.

	Year ended December 31,		
	2015	2016	Change
	(audited)		(%)
Administrative employees	220	230	4.5
Factory workers	690	748	8.4
Average number of employees	**910**	**978**	**7.5**

Both the average number of administrative employees and the average number of factory workers increased from 220 and 690, respectively, in 2015 to 230 and 748, respectively, in 2016. The increase in the number of factory workers related primarily to the CHP Acquisition and the establishment of our corrugated production site (PW10) in Trzcinica, Poland. The slight increase in the number of administrative employees is due to the abovementioned effects.

Other operating expenses

	Year ended December 31,		
	2015	2016	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Expenses from exchange rate differences	(4,165)	(3,405)	(18.2)
Expenses from other periods	(2,020)	(2,548)	26.1
Maintenance and repair (unaudited)	(35,011)	(46,885)	33.9
Freight expenses (unaudited)	(60,756)	(61,174)	0.7
Paper machine clothings (unaudited)	(6,048)	(5,740)	(5.1)
Rental and leasing costs	(5,816)	(6,396)	10.0
Water and waste water treatment expenses (unaudited)[1]	(5,143)	(5,777)	12.3
Legal and consulting fees (unaudited)	(1,590)	(2,672)	68.0
Extraordinary expenses	(38,341)	(921)	(97.6)
Others (unaudited)[1]	(17,910)	(18,775)	4.8
Other operating expenses	**(176,800)**	**(154,293)**	**(12.7)**

(1) Relevant figures for the year ended December 31, 2016 differ slightly from the corresponding figures presented for the same year in the table as included under ‘‘*—Financial Year Ended December 31, 2017 Compared to Financial Year Ended December 31, 2016—Other operating expenses*” because we reclassified certain accounts within operating expenses in further development of our investor reporting.

Other operating expenses decreased by €22.5 million or 12.7%, from €176.8 million in 2015 to €154.3 million in 2016, mainly due to lower extraordinary expenses, partly offset by higher expenses for maintenance and repair. Expenses for maintenance and repair increased by €11.9 million or 33.9%, from €35.0 million in 2015 to €46.9 million in 2016, primarily due to the longer than scheduled maintenance shutdown of the CHP . Freight expenses increased slightly by €0.4 million or 0.7%, from €60.8 million in 2015 to €61.2 million in 2016, due to the higher sales volume. Rental and leasing costs increased by €0.6 million or 10.0%, from €5.8 million in 2015 to €6.4 million in 2016, primarily due to the first-time, full-year impact of rental costs for the building at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015. Water and waste water treatment expenses increased by 12.3%, from €5.1 million in 2015 to €5.8 million in 2016, mainly due to higher fees for waste water treatment at our paper machine PM2.

Expenses from other periods increased by €0.5 million or 26.1%, mainly due to scrapping of fixed assets. Legal and consulting fees increased by €1.1 million or 68.0% from €1.6 million in 2015 to €2.7 million in 2016.

In connection with the implementation of the changes introduced by the BilRUG, we were required to report as other operating expenses those items we previously reported under a separate line item as “extraordinary expenses” in prior periods. See also “*—Key Income Statement Items—Other Operating Expenses*” above. Extraordinary expenses significantly decreased by €37.4 million or 97.6%, from €38.3 million in 2015 to €0.9 million in 2016. Extraordinary expenses in 2015 primarily related to the 2015 Refinancing in April 2015.

EBITDA

	Year ended December 31,		
	2015	2016	Change
	(unaudited) (€ in thousands)		(%)
EBITDA[1]	152,861	154,679	1.2

(1) EBITDA (not a German GAAP measure) is calculated as sales, *plus* increase/(decrease) in finished goods and work in process, *plus* other operating income (excluding any extraordinary income), *plus* other own work capitalized, *minus* costs of materials, *minus* personnel expenses, *minus* other operating expenses (excluding any extraordinary expenses), *minus* other taxes. In response to changes to German GAAP, which have resulted in certain changes to the presentation of our financial information for the fiscal years ended December 31, 2015 and 2016 in the table above, we have adjusted the way we calculate EBITDA to ensure consistency and comparability with our EBITDA reported for prior periods. While our reported EBITDA therefore excludes the impact of any "extraordinary" items for all periods presented, it has not yet been adjusted for "items of exceptional size or incidence", which is a new concept under German GAAP introduced by the BilRUG. See also "*—Significant Accounting Policies—Effects of BilRUG*" below.

Our EBITDA increased by €1.8 million or 1.2% from €152.9 million in 2015 (22.2% of sales) to €154.7 million in 2016 (21.1% of sales), as a result of the factors described above. Excluding the negative effect of €16.0 million in "items of exceptional size or incidence" (including €13.9 million in additional costs as expenditure of exceptional size or incidence and €2.1 million in lost sales) related to a longer than scheduled shutdown of the CHP in 2016, our EBITDA for the fiscal year ended December 31, 2016 would have been €170.7 million (23.2% of sales).

Amortization and depreciation of fixed intangible and tangible assets

	Year ended December 31,		
	2015	2016	Change
	(audited) (€ in thousands)		(%)
Depreciation on intangible assets	(337)	(2,856)	—
Depreciation on tangible assets	(29,082)	(44,516)	53.1
Total amortization and depreciation of fixed intangible and tangible assets	**(29,419)**	**(47,372)**	61.0

Amortization and depreciation expenses increased by €18.0 million or 61.0% from €29.4 million in 2015 to €47.4 million in 2016. This significant increase was primarily due to amortization charges with regard to the CHP and related assets (which we acquired effective as of midnight on December 31, 2015), the first-time, full-year impact of amortization charges with regard to our corrugated production site in (PW9) in Plössberg, Germany (which commenced production in October 2015) as well as maintenance capital expenditure in 2016.

Interest income/(expenses), net

	Year ended December 31,		
	2015	2016	Change
	(audited, unless otherwise stated) (€ in thousands)		(%)
Other interest and similar income	150	144	(3.7)
Interest and similar expenses	(21,881)	(25,334)	15.8
Interest income/(expenses), net (unaudited)	**(21,732)**	**(25,190)**	**(15.9)**

Our net interest expense in 2016 increased by €3.5 million or 15.9% from net expenses of €21.7 million in 2015 to net expenses of €25.2 million in 2016. This increase was almost entirely due to a increase in interest and similar expenses by €3.5 million or 15.8% from €21.9 million in 2015 to €25.3 million in 2016, due to the €95.0 million aggregate principal amount of additional 5.125% senior secured fixed rate notes due 2022 we issued to partly fund the CHP Acquisition, as well as further indebtedness we incurred during the course of 2015 and 2016 under the Senior Secured PLN Facilities, including to finance the establishment of our newest corrugated board production site (PW10) in Trzcinica, Poland. Liabilities under the Senior Secured Notes and bank loans were €420 million and €26.3 million, respectively, as of December 31, 2016 compared to liabilities under the Senior Secured Notes and bank loans of €495 million and €36.2 million, respectively, as of December 31, 2015.

Taxes

	Year ended December 31,		
	2015	2016	Change
	(audited, unless otherwise stated)		
	(€ in thousands)		(%)
Taxes on income	(11,775)	(19,793)	68.1
Other taxes	(1,749)	(1,479)	(15.5)
Total taxes (unaudited)	**(13,524)**	**(21,272)**	**57.3**

Total taxes increased significantly by €7.7 million or 57.3%, from €13.5 million in 2015 to €21.3 million in 2016. Total taxes mainly include trade tax and corporate income tax for the current financial year. Furthermore, total taxes include deferred payments of trade tax and corporate tax for previous years, which amounted to €0.5 million in 2016 and expenses arising from the adjustment of deferred tax assets, which amounted to €0.6 million.

Consolidated net income/(net loss)

	Year ended December 31,		
	2015	2016	Change
	(audited)		
	(€ in thousands)		(%)
Consolidated net income/(loss) for the period	**54,405**	**61,404**	**12.9**
Consolidated unappropriated retained earnings brought forward	68,879	117,062	70.0
Consolidated net retained profits	**123,284**	**178,465**	**44.8**

Consolidated net income/(loss) for the period increased by €7.0 million or 12.9% from a profit of €54.4 million in 2015 to a profit of €61.4 million in 2016. This was the result of the factors described above.

LIQUIDITY AND CAPITAL RESOURCES

Overview

Our primary sources of financing are cash generated from our operating activities, the Senior Secured Notes, the Senior Secured PLN Facilities and future drawings under the Senior Secured EUR Facility and the Senior Secured GBP Facility. In addition, we have undrawn capacity of €50 million under the Super Senior Revolving Credit Facility as of the date of this annual report. Our cash requirements consist mainly of debt and tax servicing requirements, the purchase of raw materials, energy and freight, working capital, personnel expenses and capital expenditures.

As of December 31, 2017, we had total financial debt (calculated as bank loans plus finance leases plus bonds, including the Senior Secured Notes) of €537.5 million compared to €455.3 million as of December 31, 2016 and €531.2 million as of December 31, 2015. As of December 31, 2017, we had cash-in-hand, bank balances in the amount of €117.9 million and net financial debt of €419.6 million (calculated as total financial debt less cash-in-hand, bank balances).

Our ability to generate cash from our operating activities depends on our future operating performance, which is in turn dependent, to some extent, on general economic, financial, competitive, market, regulatory and other factors, many of which are beyond our control, as well as other factors discussed under "*Risk Factors*". In addition, our ability to draw under the Super Senior Revolving Credit Facility will only be available if, among other things, we meet the financial covenant set out therein. See "*Description of Certain Financing Arrangements—Amended and Restated Super Senior Revolving Credit Facility*".

Although we believe that our expected cash flows from operating activities, together with the proceeds from the intended offering of the New Notes, capacity under the Super Senior Revolving Credit Facility, future drawings under the Senior Secured EUR Facility and the Senior Secured GBP Facility and cash-in-hand, bank balances, will be adequate to meet our anticipated liquidity and debt service needs, we cannot assure you that our business will generate sufficient cash flows from operating activities or that future debt and equity financing will be available to us in an amount sufficient to enable us to pay our debts when due, including the Senior Secured Notes, or to fund our other liquidity needs.

We believe that the potential risks to our liquidity include:

- a reduction in operating cash flows due to a decrease of operating profit from our operations, which could be the result of a downturn in our performance or in the industry as a whole;
- the failure or delay of our customers to make payments due to us;
- the failure to realize the expected benefits from our Continuous Improvement Program and from further future optimization initiatives;
- the failure to further maintain a lean cost structure;
- the failure to execute capacity expansion projects successfully;
- any significant unplanned downtime of one or more of our production facilities and/or the CHP adjacent to our paper mill in Eisenhüttenstadt;
- a failure to maintain low working capital requirements;
- currency exchange rate fluctuations;
- an increase in variable interest payments or taxes; and
- the need to fund capacity expansion, unexpected replacement capital expenditures and other development capital expenditures.

If our future cash flows from operating activities and other capital resources (including borrowings under our current or any future credit facility) are insufficient to pay our obligations as they mature or to fund our liquidity needs, we may be forced to:

- reduce or delay our business activities and capital expenditures;

- sell certain of our assets;
- obtain additional debt or equity financing; or
- restructure or refinance all or a portion of our current or future debt, including the Senior Secured Notes, on or before maturity.

We cannot assure you that we would be able to accomplish any of these alternatives on a timely basis or on satisfactory terms, if at all. In addition, the terms of the Senior Secured Notes, the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and any future debt may limit our ability to pursue any of these alternatives.

Cash flows

The following table sets forth our cash flows for the years ended December 31, 2015, 2016 and 2017.

	Year ended December 31,		
	2015	**2016**	**2017**
	(audited, unless stated otherwise) (€ in thousands)		
Consolidated net income for the period	54,405	61,404	72,412
Amortization and depreciation of fixed assets	29,419	47,372	50,032
Increase/(decrease) in provisions	(8,739)	(6,709)	6,183
Other non-cash expenses/(income)	1,298	(496)	(1,228)
(Increase)/decrease in inventories, trade receivables and other assets (not attributable to investing or financing activities)	(2,357)	3,049	(32,056)
Increase/(decrease) in trade payables and other liabilities (not attributable to investing or financing activities)	7,789	9,983	(10,431))
(Gain)/loss on disposal of fixed assets	—	510	—
Interest expenses/(income)	21,732	25,190	23,613
Expenditure/(income) of exceptional size or incidence	35,531	14,835	6,240
Income tax expenses/(income)	11,775	19,793	28,058
Cash payments relating to expenditure of exceptional size or incidence	—	(11,736)	(2,178)
Income taxes paid	(17,328)	(10,631)	(17,939)
Cash flow from operating activities	**133,525**	**152,564**	**122,706**
Proceeds from disposal of intangible and tangible fixed assets	67	144	150
Payments to acquire intangible fixed assets	(659)	(472)	(176)
Payments to acquire tangible fixed assets	(26,769)	(22,976)	(47,762)
Payments to acquire entities included in the basis of consolidation	(179,547)	—	—
Interest received	130	103	53
Cash flow from investing activities	**(206,778)**	**(23,201)**	**(47,735)**
Free cash flow (unaudited)[1]	**(73,253)**	**129,363**	**74,971**
Proceeds from the issuance of bonds and borrowings	535,529	2,081	173,187
Cash repayments of bonds and borrowings	(394,420)	(75,847)	(83,642)
Proceeds from grants received	1,300	313	—
Cash payments relating to expenditure of exceptional size or incidence	(30,705)	(4,109)	(3,317)
Interest paid	(17,577)	(26,473)	(24,891)
Dividends paid to shareholders of the parent entity	(19,191)	(6,222)	(57,519)
Cash flow from financing activities	**74,936**	**(110,257)**	**3,818**
Net change in cash funds	1,683	19,106	78,789
Effect on cash funds of exchange rate movements	321	(2,498)	1,787
Cash funds at beginning of period	18,758	20,762	37,370
Cash funds at end of period	**20,762**	**37,370**	**117,946**

(1) We define free cash flow (not a German GAAP measure) as cash flow from operating activities less cash outflows from investing activities.

Cash flow from operating activities

In 2017, our cash flow from operating activities decreased by €29.9 million from €152.6 million in 2016 to €122.7 million in 2017, notwithstanding the significant increase in our net income for the period from €61.4 million in 2016 to €72.4 million in 2017. The decrease in our cash flow from operating activities was primarily attributable to the significant increase in our trade working capital, both as a result of a significant increase in inventories, trade receivables and other assets (not attributable to investing or financing activities) and a significant decrease in trade payables and other liabilities (not attributable to investing or financing activities), for the reasons discussed below. A significant increase in income taxes paid (from €10.6 million in 2016 to €17.9 million in 2017), due to higher net income in 2017 and a lower amount of tax loss carry-forwards available to off-set our net income, also contributed to the decrease in our cash flow from operating activities in 2017.

In 2016, our cash flow from operating activities increased by €19.0 million from €133.5 million in 2015 to €152.6 million in 2016. This increase was primarily attributable to an increase in our net income for the period (from €54.4 million in 2015 to €61.4 million in 2016), supported by a significant decrease in our trade working capital, which is attributable to a significant increase in our trade payables (€25.2 million) related to the construction schedule of our newest corrugated board production site in Trzcinica, Poland as well as reporting date-related fluctuations and a decrease in our work in process, which more than off-set a slight increase in our trade receivables (€2.0 million) and in raw materials, consumables and supplies (€5.6 million) mainly due to a higher volume of spare parts. We recorded non-cash income in 2016, compared to non-cash expenses of €1.3 million in 2015, primarily as the result of non-cash foreign exchange effects.

Our cash flow from operating activities is significantly affected by changes in our net working capital. As a result, our cash flow from operating activities can be significantly affected by changes in raw material prices or an increase or decrease of sales volumes as well as payment terms, as those factors affect the amount of inventories, trade receivables and trade payables. The following table sets forth our net working capital as of the dates indicated:

	As of December 31,		
	2015	**2016**	**2017**
	(audited, unless otherwise stated) (€ in thousands)		
Trade receivables	**57,593**	**59,561**	**78,859**
Inventories	**75,025**	**73,944**	**86,864**
Raw materials, consumables and supplies	45,908	51,480	53,985
Work in process	24,339	18,396	27,671
Finished products	4,649	4,038	5,061
Prepayments	129	29	147
Trade payables	**(32,784)**	**(58,020)**	**(51,524)**
Trade working capital (unaudited)[1]	**99,834**	**75,486**	**114,199**

(1) Trade working capital (not a German GAAP measure) we define as trade receivables plus inventories, minus trade payables.

We record a liability under trade payables only if we have received the related supplier invoice by the relevant balance sheet date and provided that all other prerequisites for the recognition as a liability have been met. We record liabilities related to goods or services we have received during the relevant period, but for which we have not yet received an invoice, under other provisions on our balance sheet. These provisions for outstanding invoices amounted to €23.7 million, €20.6 million and €22.1 million as of December 31, 2015, 2016 and 2017, respectively. In addition, we record the partial purchase price retention for trade receivables we have already tendered for purchase under our factoring and forfaiting programs, but which have not yet been collected from the relevant customers, as other assets on our balance sheet.

In 2017, our trade working capital increased significantly by €38.7 million or 51.3% from €75.5 million as of December 31, 2016 to €114.2 million as of December 31, 2017, notwithstanding the increase in our total output in 2017 of only 12.4%. Trade receivables increased by €19.3 million or 32.4% from €59.6 million as of December 31, 2016 to €78.9 million as of December 31, 2017 due to (i) significantly higher sales volumes towards year end 2017 compared to year end 2016, mainly as a result of our corrugated board production site (PW9) in Plössberg, Germany completing its ramp-up phase in 2017 and the fast ramp-up of our corrugated board production site (PW10) in Trzcinica, Poland during 2017, following commencement of commercial production in April 2017, as well as (ii) significantly higher prices for our corrugated board products at year end 2017 compared to year end 2016, and (iii) timing effects at year end 2016 and 2017. Inventories also increased significantly by €12.9 million or 17.5% from €73.9 million as of December 31. 2016 to €86.9 million as of December 31, 2017, mostly as a result of a €9.3 million or 50.4% increase in work in process from €18.4 million as of December 31. 2016 to €27.7 million as of December 31, 2017. This increase in work in process as of

year end 2017 relates to (i) our additional corrugated board production site (PW10) in Trzcinica, Poland, which commenced production in April 2017 as well as (ii) a planned extended maintenance shutdown of our paper machine (PM1) in Burg, Germany. In anticipation of this planned shutdown, we already started to increase stock levels of the relevant containerboard grades produced by our paper machine (PM1) to be able to continue to meet the relevant containerboard sourcing requirements of our corrugated board production during the planned extended shutdown. Inventories of finished products also increased by €1.0 million or 25.3% from €4.0 million as of December 31, 2016 to €5.1 million as of December 31, 2017, both as a result of the higher volume of finished goods and the increase in the price for our finished goods at year end 2017. At the same time, the amount of trade payables decreased significantly by €6.5 million or 11.2% from €58.0 million as of December 31, 2016 to €51.5 million as of December 31, 2017, notwithstanding a significant increase in our raw material sourcing requirements in 2017 due to the increase in our corrugated board production and significantly higher prices for recycled paper and recycled containerboard in 2017 compared to 2016. The lower amount of trade payables at year end 2017 was primarily due to a high amount of trade payables as of December 31, 2016 related to the construction of our corrugated board production site (PW10) in Trzcinica, Poland.

In 2016, our trade working capital decreased significantly by €24.3 million or 24.4% from €99.8 million as of December 31, 2015 to €75.5 million as of December 31, 2016, notwithstanding the increase in our total output in 2016. Trade receivables increased slightly by €2.0 million or 3.4% from €57.6 million as of December 31, 2015 to €59.6 million as of December 31, 2016. At the same time, the amount of trade payables increased significantly by €25.2 million or 77.0% from €32.8 million as of December 31, 2015 to €58.0 million as of December 31, 2016. This increase is primarily related to trade payables related to the construction of our corrugated board production site (PW10) in Trzcinica, Poland, timing effects at year end 2015 and 2016 as well as a more efficient usage of supplier payment terms.

Cash flow from investing activities

Cash flows from investing activities generally consist of cash outflows for investments in tangible and intangible fixed assets as well as cash inflows from the disposal of fixed assets as well as interest received concerning financial assets and cash in hand.

In 2017, our cash outflows from investing activities increased by €24.5 million or 105.7%, from €23.2 million in 2016 to €47.7 million in 2017. This is due to the higher cash outflows due to payments to acquire tangible fixed assets related to the establishment of our corrugated board production sites (PW10, PW11 and PW12) in Trzcinica, Poland, Drizzona, Italy and Ellesmere Port, United Kingdom in 2017. Cash outflows from investing activities in 2016 primarily related to cash outflows due to payments to acquire tangible fixed assets in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland.

In 2016, our cash outflows from investing activities significantly decreased by €183.6 million or 88.8%, from €206.8 million in 2015 to €23.2 million in 2016. This is due to the high cash outflows to acquire entities included in the basis of consolidation of €179.5 million in 2015 related to the CHP Acquisition. Cash outflows due to payments to acquire tangible fixed assets also decreased slightly from €26.8 million in 2015 (mainly related to the establishment of our corrugated board production site (PW9) in Plössberg, Germany, the extension of our headquarter office building as well as €4.4 million in payments to acquire the network access ports in connection with the CHP Acquisition) to €22.9 million in 2016 (mainly related to the establishment of our corrugated board production site (PW10) in Trzcinica, Poland).

We primarily finance our maintenance capital expenditures with cash flow from operating activities. From time to time, we have also financed our expansion capital expenditures through borrowings. The following table sets forth our capital expenditures for the years ended December 31, 2015, 2016 and 2017:

	Year ended December 31,		
	2015	2016	2017
	(audited, unless otherwise stated) (€ in thousands)		
Payments to acquire fixed assets (capital expenditures) (unaudited)	**27,428**	**23,448**	**47,938**
Payments to acquire tangible fixed assets	26,769	22,976	47,762
Payments to acquire intangible fixed assets	659	472	176

Following a period of high capital expenditures related primarily to significant capacity expansion, in particular related to our €420 million investment into our paper machine PM2 in Eisenhüttenstadt, Germany, between 2008 and 2010 as well as our investment of approximately €60 million in connection with the construction of our corrugated board production site in Strykow, Poland, between 2007 and 2009, our capital expenditures declined significantly between 2011 and 2014 and related primarily to (i) maintenance, (ii) productivity improvements and (iii) to a much lesser extent, expansion of

our capacity. However, as discussed in more detail under "*Business—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Expansion Projects and Investment Program*", our strategy involves significant additional investments to further expand both our corrugated board and containerboard production capacities.

Payments of capital expenditures of €27.4 million in 2015 primarily relate to the establishment of our corrugated board production site (PW9) in Plössberg, Germany, the extension of our headquarter office building and the purchase of the network access ports in connection with the CHP Acquisition. In particular, on March 23, 2015, we entered into a €10.7 million finance lease agreement for the corrugator at our corrugated board production site (PW9) in Plössberg. See "*—Contractual Obligations—Financing Arrangements*" below.

Payments of capital expenditures of €23.4 million in 2016 primarily relate to our €22.1 million investment in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland, on land we purchased from our large customer Janmar Centum adjacent to its existing packaging plant.

Payments of capital expenditures of €47.9 million in 2017 primarily reflect (i) €16.0 million of capital expenditures in connection with the establishment of our corrugated board production site (PW10) in Trzcinica, Poland (which commenced production in April 2017), (ii) €8.5 million in 2017 of capital expenditures in connection with the establishment of our newest corrugated board production site (PW11) in Drizzona, Italy (which commenced production in early March 2018) and (iii) €11.6 million of capital expenditures in connection with the ongoing construction of our corrugated board production site (PW12) in Ellesmere Port, United Kingdom (following the start of construction in October 2017).

Free cash flow

We define free cash flow as cash flow from operating activities less cash outflows from investing activities. Free cash flow comprises the cash surplus or deficit after expenditure on investments and taxes but before net cash used in/provided by financing activities, and before taking into account cash proceeds and payments relating to shareholders' equity and financial liabilities. The reasons for changes in the free cash flow are therefore the same as explained above. In 2017, our free cash flow decreased by €54.4 million from a cash inflow of €129.4 million in 2016 to a cash inflow of €75.0 million in 2017. In 2016, our free cash flow increased significantly by €202.6 million from a cash outflow of €73.3 million in 2015 to a cash inflow of €129.4 million in 2016.

Cash flow from financing activities

In the year ended December 31, 2017, we reported a net cash inflow from financing activities of €3.8 million, mainly as a result of (i) the excess proceeds from the €150 million aggregate principal amount of the Senior Secured Floating Rate Notes due 2024 issued in March 2017, after application of a portion of the proceeds to redeem €75 million aggregate principal amount of the Company's senior secured floating rate notes due 2022 and payment of costs, fees and expenses for the offering and (ii) PLN 92.0 million of drawings under the 2016 Senior Secured PLN Facility in 2017 in connection with the completion of our corrugated board production site (PW10) in Trzcinica, Poland. These cash inflows from financing activities more than offset (i) €57.5 million in dividends distributed to our shareholders, including a €55.0 million special dividend in April 2017, which enabled JH-Holding, together with cash-in-hand, bank balances, to purchase €43.9 million aggregate principal amount of the PIK Toggle Notes in a tender offer and subsequently transfer such PIK Toggle Notes to JH-Holding Finance SA for cancellation, (ii) €8.9 million of payments in relation to a former finance lease agreement for the corrugator at our corrugated board production site (PW9) in Plössberg, Germany, including €1.5 million in regular payments during the course of 2017 and €7.4 million in payments upon termination of the financing lease agreement in December 2017, as well as (iii) PLN 36.4 million in scheduled repayments under the Senior Secured PLN Facilities.

In the year ended December 31, 2016, we reported a cash outflow from financing activities of €110.3 million as a result of the early optional redemption of €75.0 million in principal amount of our Senior Secured Floating Rate Notes, €26.5 million in interest payments and €6.2 million in dividends distributed to our shareholders.

In the year ended December 31, 2015, we reported a net cash inflow from financing activities of €74.9 million, primarily as a result of the tap offering in December 2015 of €95.0 million aggregate principal amount of additional 5.125% senior secured fixed rate notes due 2022 we issued to fund a portion of the purchase price for the CHP Acquisition, the net proceeds of which more than offset €19.2 million in dividends distributed to our shareholders. For more information, see "*—Key Factors Affecting our Results of Operations—The CHP Acquisition*".

Liquidity management

While we intend to primarily meet our liquidity requirements with cash generated from our operating activities and drawings under the Senior Secured EUR Facility and Senior Secured GBP Facility, we expect to have sufficient capacity available under the Super Senior Revolving Credit Facility to be able to meet any additional operating requirements. As of the date of this annual report, we have undrawn capacity of €50 million under the Super Senior Revolving Credit Facility. The utilization of the Senior Secured EUR Facility and the Senior Secured GBP Facility is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the New Notes. As a result, the Senior Secured EUR Facility and the Senior Secured GBP Facility currently remain undrawn. We may utilize the €8.5 million Facility A and the €30.0 million Facility B under the Senior Secured EUR Facility until October 4, 2018 and November 30, 2018, respectively. For more details about the Senior Secured EUR Facility, see "*Description of Certain Financing Arrangements—Senior Secured EUR Facility*". We may utilize the GBP70.0 million Senior Secured GBP Facility until May 31, 2019. For more details about the Senior Secured GBP Facility, see "*Description of Certain Financing Arrangements—Senior Secured GBP Facility*".

To manage our liquidity, we maintain a largely centralized cash management system, which includes all our subsidiaries. In particular, liquidity plans are prepared with the Group budget on a monthly rolling period for the upcoming 12 months in which the expected cash receipts and payments for the specified time period are set off against each other. The upcoming four weeks are planned two times per month and include a deviation analysis.

OFF-BALANCE SHEET ARRANGEMENTS

The following discussion describes our material off-balance sheet arrangements.

Forfaiting Program and Former Factoring Programs

Historically, our subsidiaries Propapier PM1 GmbH, Propapier PM2 GmbH and Prowell GmbH financed a portion of their trade receivables through off balance sheet factoring and forfaiting programs. Propapier PM1 GmbH, Propapier PM2 GmbH and Prowell GmbH had entered into separate off balance sheet factoring agreements with CommerzFactoring GmbH, which we terminated effective January 2, 2018. In addition, Prowell GmbH has also entered into an off balance sheet forfaiting agreement with CommerzFactoring GmbH. Under the factoring programs we sold and under the forfaiting program we sell trade receivables to CommerzFactoring GmbH on a non recourse basis in return for immediate cash payments. The factoring transactions occurred on a rolling basis up to a maximum aggregate transaction volume of €20 million. The forfaiting transactions occur on a regular basis up to a maximum aggregate transaction volume of €15 million. As of December 31, 2017, €16.7 million in outstanding trade receivables were sold under the factoring and forfaiting programs.

CONTRACTUAL OBLIGATIONS

Financing Arrangements

As of December 31, 2017, on a *pro forma* basis to give effect to the Refinancing , the third party financing arrangements of the Group would have been as follows:

	Commitments[1]						
	Total	<1 Year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	>5 Years
				(unaudited) (€ in thousands)			
New Notes[2]	450,000	—	—	—	—	—	450,000
Senior Secured Floating Rate Notes[2]	150,000	—	—	—	—	—	150,000
Super Senior Revolving Credit Facility	—	—	—	—	—	—	—
Senior Secured PLN Facilities[3]	42,519	7,996	8,954	10,390	15,178	—	—
Total indebtedness[4]	642,519	7,996	8,954	10,390	15,178	—	600,000

(1) As adjusted to give effect to the offering of the New Notes and the intended use of proceeds therefrom, including the proposed redemption of our Senior Secured Fixed Rate Notes, in each case as if they had taken place as of December 31, 2017. Table does not show any drawings under the Senior Secured EUR Facility or the Senior Secured GBP Facility. The utilization of the Senior Secured EUR Facility and the Senior Secured

GBP Facility is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the New Notes. As a result, the Senior Secured EUR Facility and the Senior Secured GBP Facility currently remain undrawn. We may utilize the €8.5 million Facility A and the €30.0 million Facility B under the Senior Secured EUR Facility until October 4, 2018 and November 30, 2018, respectively. For more details about the Senior Secured EUR Facility, see "*Description of Certain Financing Arrangements—Senior Secured EUR Facility*". We may utilize the GBP70.0 million Senior Secured GBP Facility until May 31, 2019. For more details about the Senior Secured GBP Facility, see "*Description of Certain Financing Arrangements—Senior Secured GBP Facility*".

(2) Represents the aggregate principal amount of the New Notes Progroup AG proposes to offer and the Senior Secured Floating Rate Notes, respectively.

(3) As of December 31, 2017, PLN 85.6 million (carrying amount at December 31, 2017: €20.5 million, calculated based on an exchange rate of €1.00 = PLN 4.177, which was the exchange rate of the zloty against the euro reported by the National Bank of Poland on December 31, 2017) in borrowings under the 2015 Senior Secured PLN Facility remained outstanding, and PLN 92.0 million (carrying amount at December 31, 2017: €22.0 million, calculated based on an exchange rate of €1.00 = PLN 4.177) in borrowings under the 2016 Senior Secured PLN Facility remained outstanding. As of the date of this annual report, the same amounts of borrowings remain outstanding under the 2015 Senior Secured PLN Facility and under the 2016 Senior Secured PLN Facility. Figures assume that all outstanding drawings under the Senior Secured PLN Facilities have been converted at an exchange rate of €1.00 = PLN 4.177. For more details about the Senior Secured PLN Facilities, including scheduled repayments on the Senior Secured PLN Facilities, see "*Description of Certain Financing Arrangements—Amended and Restated Senior Secured PLN Facilities*".

(4) Total indebtedness excludes obligations under our off-balance sheet forfaiting program and our former factoring programs. See "*—Off-Balance Sheet Arrangements*" above.

Other Contractual Obligations

In addition, we have other contractual obligations incurred in the ordinary course of business, such as power supply agreements, maintenance agreements and agreements for the provision of other services. As of December 31, 2017, the minimum amount of undiscounted future payments under operating leases and for other financial obligations (total payment obligations) were as follows:

	As of December 31, 2017
	(unaudited) (€ in thousands)
Operating leases	8,367
Other financial obligations	127,433
Total payment obligations	135,800

We lease forklifts and trucks pursuant to operating leases that are not recorded on our balance sheet. These operating leases typically have a term of between three and six years, and the total remaining payment obligations under those leases amounted to €8.4 million as of December 31, 2017. In addition, we have entered into leasing agreements for other property as well as for commercial real estate. The total remaining lease payments under those leasing agreements amounted to €19.2 million as of December 31, 2017, including obligations under a commercial real estate leasing agreement entered into by Prowell Ltd. in the United Kingdom with a term until the end of 2018 and obligations for an office lease in Landau, Germany with a term until the end of 2025.

As of December 31, 2017, we also have contractual off-take obligations under recycled paper and containerboard supply agreements, which amount to €45.8 million for the following year 2018. In addition, as of December 31, 2017, our contractual obligations under energy supply agreements amounted to €9.8 million for the following year 2018. Furthermore, as of December 31, 2017, we had commitments under open purchase orders amounted to €52.7 million.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to a number of different market risks arising from our normal business activities.

Based on our assets, liabilities and pending and planned transactions, we are particularly exposed to risks arising from changes in exchange rates, interest rates and commodity prices, as well as credit risks, such as the risk of default by counterparties. Furthermore, solvency must be assured at all times (liquidity risk). The objective of risk management is to

use appropriate measures to control these risks where they affect our cash flows. Derivative financial instruments are used only for hedging purposes. They are not used for trading or speculative purposes. Exchange effects resulting from the translation of financial statements in foreign currencies into our reporting currency are not hedged. The guidelines for risk hedging and their implementation are defined and continuously monitored by our Group Treasury Management department.

Raw material price risks

Raw material price risks result primarily from increases in the prices of recycled paper and containerboard, which cannot fully be passed on to customers through higher sales prices or can only passed on to customers with a time lag of two to three months.

Energy price risks

Energy price risks result primarily from fluctuations in global energy prices and regulatory risks in Germany and other markets in which we operate.

Currency risk

The foreign currency risk is due to the increasing internationalization of the Group and is an additional risk that has increasing relevance as a result of the increased volatility in global interest rate and currency markets relevance. We primarily generate our sales in euro. In our foreign subsidiaries where the euro is not the local currency, there is a currency risk as these subsidiaries generate their sales mainly in local currencies but their material costs are mainly measured in euro. Currency risk also arises on trade receivables and payables in foreign currencies. Furthermore, there are currency risks due to the euro-financing of foreign subsidiaries. Throughout the years 2015, 2016 and 2017, there were currency risks mainly in the British pound, Polish zloty and Czech koruna relative to the euro.

Interest rate risk

Currently, interest rate risks arise mainly on interest-bearing liabilities that are denominated in euro.

We expect that our exposure to interest rate fluctuations will relate primarily to the Senior Secured Floating Rate Notes, potential drawings under our €50 million Super Senior Revolving Credit Facility and drawings under our GBP70,000,000 Senior Secured GBP Facility. From time to time, we will evaluate the necessity of future interest rate hedging.

Credit risks

Credit risks arise mainly on trade receivables, bank balances and derivative financial instruments. In view of our relatively diversified customer list, which extends over various regions, the impact arising from credit risk on trade receivables is limited. Further, the trade receivables of some of our subsidiaries are credit insured up to the limit the credit insurer approves.

To minimize the credit risks from the operational business activity, transactions with customers are only entered into after an internal credit check and a credit approval process. Based on the internal credit check, a limit for a maximum credit risk per customer is established.

SIGNIFICANT ACCOUNTING POLICIES

In preparing our consolidated financial statements, assumptions and estimates have been made which affect the amounts and presentation of the assets and liabilities recognized in the statement of financial position, income and expenses, and contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that may require a material adjustment to the carrying amount of our assets and liabilities in future periods.

By “significant”, we mean that the following accounting policies are both important to the portrayal of our financial condition and results and require management’s subjective judgments, often as a result of the need to estimate the effects of matters that are inherently uncertain. We discuss the impact and risks associated with these significant accounting policies on our business operations throughout this discussion and analysis where such policies affect our reported and expected financial results. You should note that the preparation of our financial statements requires us to make estimates and assumptions that affect the reported amount of assets and liabilities, disclosure of contingent assets and liabilities at the date of our financial statements and the reported amounts of revenue and expenses during each reporting period.

All assumptions and estimates are made according to the best of management's knowledge and belief in order to present a true and fair view of our net assets, financial position and results of operations. Since the actual values may, in individual cases, differ from the assumptions and estimates that were made, these are continuously reviewed. Adjustments to the estimates that are relevant for the financial statements are made in the period in which the change occurs, provided that the change relates only to this period. If the change relates not only to the reporting period but also to subsequent periods, the change is taken into account both in the period of the change and in the subsequent periods.

Effects of BilRUG

With effect as of January 1, 2016, certain changes have been introduced to German GAAP by the German Accounting Standard Implementation Act (*Bilanzrichtlinie-Umsetzungsgesetz*, "**BilRUG**") with regard to the preparation of financial information for any period beginning after December 31, 2015. The relevant changes introduced to German GAAP by the BilRUG mostly affect disclosure issues, such as the deletion of certain income statement lines, e.g. "extraordinary income", "extraordinary expenses", "extraordinary net income/loss" and "profit/loss on ordinary activities" as well as new income statement lines, e.g. "earnings after taxes". In addition, the BilRUG introduced a new definition of "sales". As a result, we are now required to reclassify certain items as "sales" that we would previously have classified as "other operating income".

The following is just a brief summary of the key changes introduced by the BilRUG that affect Progroup AG and the presentation of its financial information, as reflected in the consolidated financial information for the fiscal years ended December 31, 2015, 2016 and 2017 presented in this annual report, including the audited consolidated financial statements for Progroup AG for the fiscal year ended December 31, 2017 included in this annual report beginning on page F-2.

In connection with the implementation of the changes introduced by the BilRUG, we made certain changes to the presentation of our income statement for all periods beginning after December 31, 2015. In particular, we will not report "profit/loss on ordinary activities" and "extraordinary net income/loss" separately anymore and, as a result, also will not separately report "extraordinary income" and "extraordinary expenses" anymore. Instead, we now report "earnings after taxes" as a new line item.

As already described above, the BilRUG also introduced a new definition of "sales". As a result, we are now required to reclassify certain items as "sales" that we would previously have classified as "other operating income". The BilRUG does not require us to restate our financial information for any periods prior to January 1, 2016 to reflect this change. We were not required to restate (and have therefore not restated) our sales and other operating income for the prior-year period. Instead, we have included relevant explanatory information in the notes to our audited consolidated financial statements as of and for the fiscal year ended December 31, 2016.

Because the BilRUG abolished the income statement item "extraordinary net income/loss" and therefore also "extraordinary income" and "extraordinary expenses" as separate items, any items we might previously have recognized under "extraordinary income" or "extraordinary expenses", respectively, we are now required to recognize under either "other operating income" or "other operating expenses". With regard to this particular change, the BilRUG does require us to restate financial information for the corresponding prior-year period in our 2016 financial statements. As a result, and to ensure comparability with our financial information for the fiscal year ended December 31, 2016, we have presented the prior-period information for the fiscal year ended December 31, 2015, as presented in our audited consolidated financial statements for the fiscal year ended December 31, 2016, under "*—Results of Operations—Financial Year Ended December 31, 2016 Compared to Financial Year Ended December 31, 2015*" above as well as under "*Selected Financial and Other Information*". "Other operating income" and "other operating expenses" for the period ended December 31, 2015 as reported in the audited financial consolidated financial statements for the fiscal year ended December 31, 2016, have been restated to include all relevant items we have previously reported as "extraordinary income" and "extraordinary expenses", as applicable. As a result, the prior-period information for the period ended December 31, 2015 as presented in this annual report differs from our previously reported figures for such period.

See also "*—Key Income Statement Items—Other Operating Income*" and "*—Key Income Statement Items—Other Operating Expenses*" above.

Tangible Fixed Assets

Tangible fixed assets are measured at cost (including production costs and borrowing costs) less depreciation. Production costs include material cost, manufacturing costs and exceptional manufacturing costs, reasonable and necessary material and production overheads, general and administrative costs and expenses for social services, voluntary social contributions and company pensions. Borrowing costs that are directly attributable to the acquisition, construction or

production of a qualifying asset are included in the cost of that asset. Depreciation is generally calculated on a straight-line basis. Straight-line depreciation rates are increased by 50% for fixed assets which are used throughout the year in three-shift operations or more.

Investment Grants

Investment grants (*Investitionszuschüsse*) are separately recorded as special reserve on our balance sheet under "Investment Grants for Fixed Assets" and reversed on a pro rata basis in accordance with useful life of the fixed asset being subsidized. Investment bonuses (*Investitionszulagen*) have been recorded in our income statement as other operating income at the time they are earned.

Emission Allowances

The German government has granted us a certain number of free emission allowances. These were acquired free of charge as part of public allocation. We have recognized these emission allowances at their nominal amount (zero) rather than at their fair market value, which German GAAP would have allowed us to do. The fair value of the allowances recognized at a carrying amount of zero amounted to €3.5 million as of December 31, 2016 and €4.7 million as of December 31, 2017.

Business Start-up and Expansion Expenses

In accordance with section 269 of the German Commercial Code (*Handelsgesetzbuch, HGB*), start-up costs that could be recognized in connection with the planning and construction of a new corrugated board format plant and paper mill, as well as the organization necessary for this, were recognized as business start-up and expansion expenses in the consolidated balance sheet and reported as own work capitalized in the consolidated income statement.

Valuation of Inventories

Raw materials, consumables and supplies are measured at actual cost or, taking into account the principle of lower of cost or market value, at lower market values as of the relevant reporting date. Appropriate valuation allowances are applied to inventories which are obsolete, second-hand, damaged or slow moving (€1.6 million in 2016 and €1.8 million in 2017).

Goods-in-progress and finished goods are measured at production cost. Production costs of goods-in-progress comprises, in addition to direct manufacturing and material costs, appropriate portions of overhead costs. Appropriate valuation allowances are applied to obsolete, second-hand, damaged or slow-moving inventories.

Receivables and Other Assets

Receivables and other assets are recognized at their nominal value or at their lower fair value as of the balance sheet date. Appropriate valuation allowances are provided for receivables whose recoverability is associated with identifiable risks; irrecoverable receivables are written off in full. To cover the general default and credit risk, a global valuation allowance of 1% is recognized on domestic and foreign receivables (net of value added tax) which are not subject to a specific valuation allowance.

Pension provisions

Pension provisions for entitlements and current pension obligations are calculated using the Projected Unit Credit (PUC) Method. They are calculated pursuant to section 253, paragraph 1, clause 2, section 253, paragraph 2 and section 246, paragraph 2 of the German Commercial Code (*Handelsgesetzbuch, HGB*). Actuarial opinions have been furnished. Calculations are based on the "Guide tables 2005 G" of Dr. Klaus Heubeck and an interest rate of 3.68% in 2017 (2016: 4.03%, 2015: 3.89%).

Anticipated salary and pension increases are reflected at a rate of 2.0% for 2017, 2016 and 2015. A fluctuation rate of 0.0% was used.

As of December 31, 2017, pension obligations for which provision required to be recognized amounts €1.3 million. A pledged pension liability insurance policy was classified as a plan asset. After offsetting the fair value of the plan asset with the present value of the defined benefit obligation the unfunded defined benefit obligation has been disclosed as pension provision (€173 thousand in 2017; €35 thousand in 2016).

Tax and Other Provisions

Tax and other provisions are recognized for all identifiable risks and uncertain liabilities at settlement amount. They are recorded at an amount in line with a reasonable business assessment. All risks arising up to the balance sheet date and identifiable up to the date of preparation of the financial statements have been taken into account. Provisions with a remaining term in excess of one year are discounted at the average market interest rate for the last seven financial years as published by the German Central Bank (*Deutsche Bundesbank*) corresponding to their remaining maturity.

In order to calculate deferred taxes due to the temporary differences between accounting for assets and liabilities for commercial law purposes and for tax purposes or due to tax loss carry-forwards, the amounts of the resulting tax charges or reductions are measured using the tax rates of the individual companies over the time that the differences are phased out and not discounted. Deferred tax assets and liabilities are offset against each other and are carried in the balance sheet at their nominal amounts.

Deferred tax assets on tax losses carried forward were recognized to the extent that the underlying tax planning confirmed that the amounts recognized could be utilized to reduce tax liabilities in the next five years.

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN GERMAN GAAP AND IFRS

Our consolidated financial statements included elsewhere in this annual report have been prepared on the basis of German GAAP, which differ in certain respects from IFRS. The following paragraphs summarize certain significant differences between German GAAP and IFRS as of December 31, 2017.

The organizations that promulgate IFRS have ongoing projects that could have a significant impact on future comparisons of German GAAP and IFRS. This description is not intended to provide a comprehensive listing of all such differences specifically related to us or the industry in which we operate. IFRS are generally more restrictive and more comprehensive than German GAAP regarding recognition and measurement of transactions, account classification and presentation and disclosure requirements. We have not attempted to identify all disclosure, presentation or classification differences that would affect the manner in which transactions and events are presented in the consolidated financial statements or the notes thereto included elsewhere in this annual report.

We have not prepared audited consolidated financial statements in accordance with IFRS. Accordingly, we cannot assure you that the differences described below would, in fact, be the accounting principles creating the greatest material differences between our consolidated financial statements prepared under German GAAP and under IFRS. In addition, we cannot estimate the net effect that applying IFRS would have on our results of operations or our financial position, or any part of them, in any of the presentations of financial information in this annual report. The effect of such differences may be material and, in particular, it may be that the total shareholders' equity (capital deficit) and net income prepared on the basis of IFRS would be materially different due to these differences.

Financial Statement Presentation

Under IFRS, the presentation of the balance sheet is based on a current/non-current distinction of assets and liabilities. IFRS requires the presentation of assets and liabilities in order of liquidity only when a liquidity presentation provides information that is reliable and is more relevant than a current/ non-current presentation. Under German GAAP, the presentation of the balance sheet is based on the liquidity of the assets and liabilities. This results, for example, in the different presentation of financial assets and liabilities and deferred taxes in the statement of financial position under IFRS and German GAAP.

Unlike IFRS, German GAAP does not require the presentation of the statement of comprehensive income and it is very common (but not required) that the income statement under the German GAAP will be prepared using the "nature of expense" method and not the "cost of sales" method, which is generally used in the IFRS financial statements. In addition, the disclosures required in the explanatory notes to the financial statements are far more extensive under IFRS than under German GAAP.

For any periods ending on or before December 31, 2015, German GAAP permitted the disclosure as "extraordinary" of certain income statement items that were incurred outside ordinary business activities. Under IFRS, disclosure of any items of income or expense as "extraordinary", either in the income statement, other comprehensive income or the notes was already prohibited. As described above under "*—Significant Accounting Policies—Effects of BilRUG*", with the introduction of the BilRUG with effect as of January 1, 2016, we are not permitted to report "profit/loss on ordinary activities" and "extraordinary net income/loss" separately anymore and, as a result, also will not separately report "extraordinary income" and "extraordinary expenses" anymore.

Consolidation Principles

Under IFRS, capital consolidation has to follow the acquisition method, with identifiable assets and liabilities being measured at their acquisition-date fair values.

Under German GAAP, capital consolidation was required to be reported using the carrying amount method until 2009. From 2010, the acquisition method and valuation by acquisition date fair values was introduced into German GAAP.

Under IFRS, an entity (investor) is required to consolidate another entity (investee), depending on whether it controls the investee. An investor controls an investee when it has power over an investee, is exposed, or has rights to the variable returns from its involvement and due to his power can influence the amount of these variable returns. The consolidation conclusions under IFRS will not differ significantly from the German GAAP regulations for the most straightforward entities. However, some differences may arise where there are complex group structures or where specific entities have been established. Investors that are most likely affected have their involvements, for example, in the following entities:

- Entities with a dominant investor without a majority of the voting or similar rights and where the rest of voting rights belongs to the widely-dispersed shareholders (de-facto control);

- Structured entities (formerly "special purpose entities") where voting or similar rights are not the dominant means to determine the power.

Under German GAAP, an investor is required to consolidate the investee if an investor holds the majority of voting rights, enjoys the right to appoint or dismiss the majority of the management and supervisory board members, enjoys the right to exercise a controlling influence on financial and operating policies or in substance obtains the majority of risks and rewards of an investee that has a narrow, well-defined purpose ("special purpose entity").

Business Combination

Under IFRS 3 acquisition related cost (transaction cost) that incurs to effect a business combination are accounted as expenses in the periods in which the costs are incurred and the services are received.

Acquisition-related costs are not part of the consideration transferred to the seller in return for the business; they are not part of the fair value of the acquired business; they do not represent an asset of the acquirer. Acquisition-related costs represent services that have been rendered to and consumed by the acquirer. As such, IFRS 3 states that they are accounted for as an expense when the acquirer consumes the related service.

Under German GAAP certain cost which have been incurred after the decision to acquire an entity qualify for capitalization and form part of the acquisition cost (e.g. due diligence cost, consultancy cost for valuation reports). All expenses incurred prior to the decision making have to be expensed as incurred.

Costs related to the issuance of financial liabilities are expensed as incurred. Optionally, interest-like expenses are capitalized and amortized over the term of the debt.

For purchase price allocation all identifiable assets, liabilities, and contingent liabilities of the subsidiaries are reflected at their fair value regardless of the level of minority share. Under IFRS 3, goodwill acquired in a business combination, must be allocated to a cash generating unit (CGU) or group(s) of CGUs. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. Under German GAAP goodwill is allocated to the respective business unit to which it refers.

Under IFRS goodwill is not amortized but tested for impairment annually and if there is an indication that goodwill may be impaired.

The recoverable amount of the CGU is compared with its carrying amount. Recoverable amount is defined as the higher of an asset's fair value less costs of disposal and its value in use. If the recoverable amount of an asset or CGU is less than its carrying amount, an entity should reduce the carrying amount to the recoverable amount. The reduction is an impairment loss. For assets carried on the depreciated historical cost basis the impairment loss should be recognized in profit or loss immediately. For assets that are carried at revalued amounts an impairment loss is treated as a revaluation decrease. The loss is first set against any revaluation surplus relating to the asset in other comprehensive income to the extent of the surplus and the remaining balance of the loss (if any) is then treated as an expense in profit or loss.

German GAAP requires goodwill to be amortized over its economic life. Goodwill should be reviewed for impairment and its remaining useful life once a year. Goodwill is impaired if its carrying amount exceeds its fair value.

Property, plant and equipment

Under IFRS, the recorded acquisition cost of property, plant and equipment includes appropriate dismantling, removal and restoration costs. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset are capitalized as part of the cost of that asset. Overhead costs, such as general and administrative costs and expenses for social services, voluntary social benefits and company pensions are not part of the production cost. Under IFRS, individual items within property, plant and equipment are frequently composed of different component parts with varying useful lives or consumption patterns. These parts are individually replaced during the useful life of an asset. Under IFRS, each such part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is recognized and depreciated separately (component approach). Costs of required and regular major inspections are capitalized and depreciated if it is probable that future economic benefits associated with the item will flow to the reporting entity and the cost of the item can be measured reliably. After initial recognition IFRS further offers an option to value items of property, plant and equipment at either the (lower) cost of the item less any accumulated depreciation and impairment or at its fair value at the date of revaluation less any subsequent accumulated depreciation and impairment.

Under German GAAP, property, plant and equipment is initially valued at purchase or production cost and includes general and administrative costs and expenses for social services, voluntary social benefits and company pensions. Capitalization of costs directly attributable to the acquisition, construction or production of a qualifying asset is permitted, but not required (alternative treatment). The component approach is not specifically contemplated by German GAAP rules, but its use for balance sheet purposes is generally permitted. Costs of regular major inspections are recognized in the income statement as incurred. A revaluation model is not permitted. Costs of demolishing or restoring an item of property, plant and equipment do not qualify for capitalization but are required to be reported as provision over the item's useful life. After initial recognition, property, plant and equipment are accounted for at cost less any accumulated depreciation.

Government Grants

Under IFRS, government grants related to a particular asset are recorded on the balance sheet either as deferred income or by deducting the grant in arriving at the carrying amount of the asset.

Under German GAAP, government grants related to a particular asset are recorded on the balance sheet either as deferred income or by deducting the grant in arriving at the carrying amount of the asset. Alternatively, a grant may be recorded as other income in the income statement on the grant date.

Business Start-up and Expansion Expenses

Under German GAAP, expenses for the start-up and expansion of a business, if incurred prior to the end of 2009, were permitted to be capitalized and amortized over a period of four years in accordance with section 269 of the German Commercial Code (*Handelsgesetzbuch, HGB*). In the subsequent periods, a similar to IFRS accounting approach for recognition of the business start-up and expansion expenses is applied.

Under IFRS, expenses for start-up and expansion of a business do not qualify for capitalization and have to be expensed in the income statement at the time of incurrence.

Impairment of Assets

Under IFRS, an impairment loss is recognized if the recoverable amount of an asset is less than its carrying amount. An asset's recoverable amount is the higher of an asset's or cash generating unit's fair value less cost of disposal and its value in use. The recoverable amount is determined for an individual asset unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets.

Under German GAAP, an impairment loss for non-current assets must only be recorded if a permanent impairment in value is anticipated. The concept of cash generating units is not applicable under German GAAP, and the impairment loss is determined on an item-by-item basis. An impairment loss is to be recognized when the carrying amount of an asset exceeds its fair value.

Provisions, Other Liabilities and Contingencies

Some provisions in the financial statements under German GAAP will be required to be reported as other liabilities in accordance with IFRS. Under IFRS, provisions are recognized if an enterprise has a present obligation as a result of a past event, it is probable (*i.e.,* more likely than not to occur) that an outflow of resources will be required to settle the

obligation and a reliable estimate can be made of the amount of the obligation. In cases where the outflow of economic resources is expected to occur, an obligation will be reported as a liability. The discount rate used to determine the amount of any provisions is determined by reference to a pre-tax interest rate for a risk-free obligation that matches the maturity of the liability to which the provision relates.

Under German GAAP, the criteria for the recognition of provisions and contingencies are less detailed and prescriptive than under IFRS. Accordingly, there is greater flexibility under German GAAP to record provisions for onerous contracts and restructuring expenses. In addition, German GAAP estimates are typically made in a more conservative manner. The recognition of a provision with a probability lower than 50% is possible. German GAAP requires the recording of provisions for deferred maintenance that is expected to be performed within three month after the end of the reporting period, uncertain liabilities and expected losses from executory contracts. Long-term provisions (*i.e.*, with a maturity of more than one year) are discounted using an average market interest rate for the preceding seven years as published by the German Central Bank (*Deutsche Bundesbank*).

Under IFRS, acquisition costs for property, plant and equipment include the initial estimated costs of dismantling and removing the item and restoring the site on which it is located. The corresponding restructuring provision is required to be made at its present value. Under German GAAP, restructuring provisions are build up incrementally over the useful life of the acquired property, plant or equipment at a discounted settlement amount.

Valuation of Assets and Liabilities; Currency Translation

Under IFRS, initial recognition and subsequent measurement of financial assets and liabilities—if qualified as financial assets and liabilities at fair value through profit and loss—is required at its fair value. Foreign currency receivables and liabilities are measured at fair value.

Under German GAAP, current financial assets are required to be recorded at acquisition cost and financial liabilities are required to be recorded at repayment cost. Current receivables and liabilities in foreign currency are measured at fair value. The valuation of non-current currency receivables and liabilities with a maturity more than one year has to be in line with lower of cost or market principle and higher carrying amount at the balance sheet date respectively.

Interest-Bearing Loans and Borrowings; Prepaid Expenses

Under IFRS, all interest-bearing loans and borrowings are initially recorded at the fair value of the consideration received, less directly attributable transaction costs. After initial recognition, interest bearing loans and borrowings are measured at amortized cost using the effective interest method.

Under German GAAP, interest-bearing loans and borrowings are recorded at their repayment amounts. Transaction costs, except for costs to be paid to the finance providers, are expensed as incurred. Only equivalent to interest transaction costs paid to finance providers are deferred as prepaid expenses and amortized on a straight-line basis to interest expense.

Sales, Trade Receivables

Under German GAAP in effect as of January 1, 2016, the definition of "sales" includes all revenue derived from the regular business activities of the reporting entity. As described above under "*—Significant Accounting Policies—Effects of BilRUG*", with the introduction of the BilRUG with effect as of January 1, 2016, the definition of "sales" under German GAAP has been expanded to include all revenue, for example, from the sale or leasing of products as well as from the provision of services by the reporting entity after deduction of revenue reductions, value added tax and other taxes directly related to revenue. In line with the new definition introduced by the BilRUG, all revenue from the sale of products and services is recorded as "sales" and corresponding receivables are recorded as trade receivables. This includes, for example, revenue from ancillary business activities such as income from passing-through the cost of gas and income from the use of refuse-derived fuel at the CHP adjacent to our paper mill in Eisenhüttenstadt, which we would previously have reported as "other operating income". All corresponding expenses for the purchase of goods in relation to such revenue items are now recorded under "material expenses", and the corresponding payables are recorded as trade payables.

Under IFRS, "revenue from certain ancillary business activities is recorded as "other operating income", rather than "sales".

Under German GAAP, valuation allowances for losses on individual trade receivables must be recorded. In addition, a general provision for doubtful accounts—reflecting the general default risk of receivables—has to be recorded. Under IFRS, the recording of such a general provision for doubtful allowances would be prohibited.

Leasing

Under IFRS, a lease has to be classified either as an operating lease or as a finance lease. A finance lease is a lease that transfers substantially all the risks and benefits incident to ownership of the leased item. For finance leases, the lessee records an asset and an obligation at an amount equal to the lower of the fair value of leased property and the present value of the minimum lease payments. Operating leases are expensed as incurred.

Under German GAAP, accounting for leases is mainly driven by tax regulations, so the lease contracts in Germany typically consider such rules in order to avoid capitalization at the lessee level. These rules differ from the IFRS rules in several respects.

Provisions for Pensions

Under IFRS, provisions for defined benefit pension obligations are accounted for under the projected unit credit method. The defined benefit obligation is measured using various actuarial assumptions, including assumptions as to future compensation and benefits levels. Under IFRS, the discount rate reflects the long-term view of the plan and not current rates that could be used to settle the pension obligation. This discount rate is derived at the reporting date based on then current capital market conditions. Under one of the options provided by IFRS, remeasurement gains and losses that result from changes in actuarial assumptions (including changes in mortality tables) or actual experience that differs from the underlying assumptions do not require recognition of gains and losses as components of net pension cost of the period in which they arise. Rather they are recognized in other comprehensive income, which will never be reclassified in profit or loss in the future.

Pension reserves under German GAAP are also be accounted for under the projected unit credit method since the enactment of the German Accounting Law Modernization Act in 2009. Under German GAAP, the discount rate used represents a ten-year average of market derived interest rates (until 2015: seven-year average market derived interest rate). In addition, German GAAP requires recognition of the remeasurement gain or losses in profit and loss and not as other comprehensive income as required under IFRS.

Deferred Taxes

Deferred tax assets (DTA) and deferred tax liabilities (DTL) are the income taxes recoverable or payable in future years. They are mainly based on the taxable or deductible temporary differences between the carrying amount of an asset or liability and the respective tax base. Due to the IFRS accounting principles, the carrying amount of an asset or liability can differ from the amount under German GAAP. Accordingly the respective deferred tax assets and liabilities change as well.

Under German GAAP, net DTL must be recognized in full, while the recognition of net DTA is optional. Unlike German GAAP, IFRS does not provide an option to capitalize net DTA and, therefore, both net DTA and net DTL have to be recognized in the respective period.

Under IFRS, DTA shall also be recognized for tax loss carryforwards to the extent that it is probable that future taxable profit will be available. Under German GAAP, the capitalization of DTA for loss carryforward shall only be taken into consideration if the tax benefit from the tax loss carryforward can be expected to be recovered within the next five years.

Derivative Financial Instruments and Hedging

Under IFRS, derivative financial instruments are recorded in the consolidated balance sheets at fair value (marked-to-market). Any gains or losses arising from changes in the fair value of derivatives are taken directly to the income statement, except for the effective portion of cash flow hedges, which is recognized in other comprehensive income and reclassified to profit or loss for the period when the forecast transaction being hedged occurs. Under IFRS, the criteria to be met to qualify for hedge accounting are quite strict. This includes stringent documentation requirements.

Under German GAAP, there is more flexibility to include forecast transactions in hedge accounting. Further, there is no need to separately account for fair values of derivative financial instruments that qualify for hedge accounting (net hedge presentation method).

INDUSTRY AND COMPETITION

The following overview of the European market for containerboard and corrugated board was prepared based on independent third-party reports and publicly available data from reputable industry organizations. Certain information in the following overview has been obtained from official and non-official third party sources believed by us to be reliable, including sources not specifically prepared for us and studies commissioned by us. However, since such information is unavoidably subject to certain assumptions and estimates made by third parties, there can be no assurance as to the accuracy or completeness of information included and it should not be relied upon. As certain economic data may have been collected on a sample basis or estimated by the authors of the relevant reports, all figures included in this section should be assumed to include estimated information.

In addition, certain statements below are based on our own proprietary information, insights, subjective opinions or unsubstantiated estimates, and not on any third party or independent source; these statements contain words such as "we estimate", "we expect", "we believe" or "in our view", and as such do not purport to cite to or summarize any third-party or independent source and should not be so read. Some market data is inherently forward-looking and subject to uncertainty and does not necessarily reflect actual market conditions. You should read the following discussion together with the sections entitled "Industry and Market Data", "Risk Factors", "Business" and "Forward-Looking Statements".

INTRODUCTION

Containerboard is one of the principal materials used to manufacture corrugated board and, ultimately, corrugated containers. Containerboard is classified according to the type of raw materials from which it is made (virgin fibres or recycled fibres), whether it is surface treated and whether it is enhanced by coating.

Two types of containerboard can be produced. Containerboard made from virgin fibres (wood pulp) is known as "kraftliner" and is—depending on the type of application—better suited for manufacturing corrugated board and containers intended for the retail and consumer packaging markets, owing to its greater strength, especially its high bursting strength, moisture resistance and purity. Containerboard made from recycled fibres (recycled paper, the primary source of which is old corrugated containers and mixed recycled paper), is known as "testliner" and fluting and is better suited for transportation and industrial packaging, due to its higher stiffness, lower weight and cheaper price.

Containerboard is classified as kraftliner as long as it contains mainly virgin fibres. Several distinct types of containerboard products are available in the market, resulting from different formulations of virgin and recycled fibres. This broad offering of containerboard products serves to address a wide range of potential packaging applications.

Both kraftliner and testliner can be surface treated to improve printing quality through the use of white, mottled or fully bleached pulp as the top layer (white-top liner). The board can also be coated, which makes it more resistant to dirt and moisture, and allows high-gloss printing. This further enhances product appearance and suitability for retail and consumer packaging.

Virtually all containerboard becomes corrugated board, in the form of linerboard and fluting. Linerboard is used for the inner and outer layers of the corrugated board and fluting for the middle section. Corrugated board producers select containerboard grades, specifications and suppliers based on availability, suitability for their own corrugators and converting machines as well as on brand owners' performance requirements. The retail industry, through its own specific requirements, has also been one of the key drivers for containerboard and corrugated board technology and product development.

For corrugated box and sheet producers, containerboard is one uniform market as corrugated board can consist of a mixture of any type of linerboard or fluting depending on end use and quality requirements. Corrugated board can come in a range of types, including single face, single wall, double wall, or triple wall, depending on the ultimate packaging application.

Corrugated board is eventually converted by corrugated box producers into regular slotted containers (RSC), die-cut boxes or other containers, and sold to brand owners or packers before reaching retailers and end-consumers. The main end-use segment in Europe is food and beverages, although the breakdown varies by country. Kraftliner is used especially in the food segment, where strength and purity are important requirements, whereas testliner is generally used in non-food fast-moving consumer goods and consumer durables.

The industry is typically viewed as comprising two main production activities: (i) the production of containerboard and corrugated board; and (ii) the conversion of corrugated board into corrugated containers or other fibre-based packaging products. There are several operating models within the containerboard and corrugated board industry. The majority of

containerboard suppliers are forward integrated such that they also operate in corrugated board and box conversion. This can allow a greater degree of control over raw material flows and pricing. Others keep a more restricted focus on particular high-value sections of the production process, and distribute products to independent sheet plants.

We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned customers in the packaging industry. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.*, the efficient and integrated production of containerboard and corrugated board. Progroup, although we have the ability to produce kraftliner, focuses on testliner production for the European market.

In Western Europe, recycled paper is the main raw material for the production of recycled containerboard and other fibre packaging boards. Recycled containerboard constitutes approximately 82% of containerboard production, with kraftliner constituting the remainder. In Europe, containerboard manufacturers tend to source the majority of their raw materials from external suppliers.

INDUSTRY FUNDAMENTALS AND DRIVERS

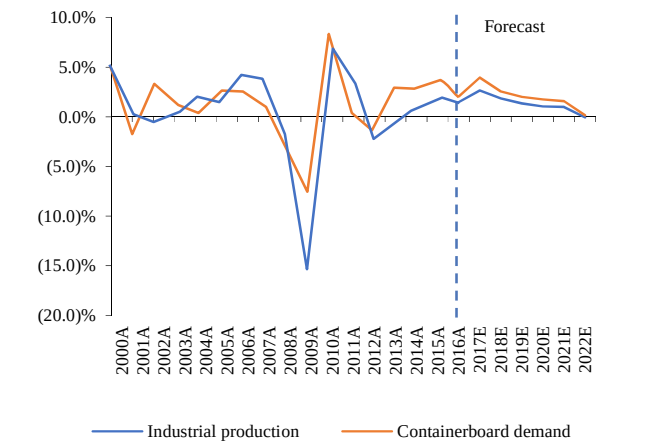
The containerboard and corrugated board industry is relatively capital intensive and competitive. Long-term demand for these products is driven by global economic trends, demographic trends, technological developments and trends in end-user preferences. Profitability is sensitive to changes in prices, and industry profit cycles reflect the constantly shifting balance between supply and demand for individual products.

Macro demand drivers and industry trends

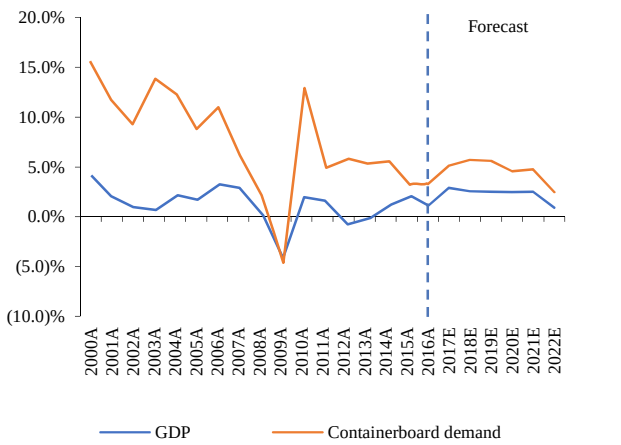
A number of factors underlie the growth of corrugated packaging, the end product of containerboard and corrugated board. In general, the growth of the general economy, industrial production and merchandise trade are the main demand drivers for containerboard and corrugated board packaging. Private consumption as well as the increased use of substitutes (e.g. plastic) also drive the development of retail sales.

The charts below show the evolution of Euro area industrial production and containerboard demand growth in Western Europe, and the evolution of Euro area GDP and containerboard demand growth in Emerging Europe, based on available data from RISI.

Western Europe[(a)]



Emerging Europe[(b)]



(a) Andorra, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK

(b) Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Malta, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Turkey, Ukraine

Source: RISI (European Paper Packaging Forecast—5 years (March 2018))

Historically, there has been a strong correlation between GDP growth and demand growth for recycled containerboard. In Western Europe, demand has grown faster than GDP since 2012 and the trend is expected to continue. In Eastern Europe, growth rates have been consistently, and significantly above GDP growth since 2000 and the trend is also expected to continue.

Demographic and lifestyle changes, including rising urbanization and demand for convenience, such as take-aways and home deliveries, have driven growth in demand for corrugated packaging, and will continue to do so especially in Emerging Europe (defined as Central, Eastern and Southeastern Europe by RISI). The effect of improvements in living standards and consumer spending in Emerging Europe and other emerging markets will support growth going forward. Development of the retail infrastructure in these markets, including online shopping and mail order, and the development of the logistics market, is expected to increase demand for containerboard products such as die-cut containers, shelf-ready packaging and decorative corrugated pieces. In addition, the booming agro-based sector, for example, will create new demand for containerboards by replacing the traditional wooden boxes with corrugated containers.

Containerboard demand will also be increasingly exposed to the general tendency to reduce packaging costs, with, for example, light weighting and reduced packaging. Plastics and returnable/reusable transit packs (RTP) will increasingly compete with corrugated board packaging, especially in mature markets and especially for the fresh fruit and vegetable markets. The future competitiveness of fibre-based packaging will depend on innovation, product development, cost and the industry's ability in general to respond to changing market requirements.

The competitive position of containerboard and corrugated board is expected to remain relatively strong in comparison with alternative materials. Recyclability, for example, will have a favorable impact on containerboard demand growth. The high recovery and recycling rate of wood fibre-based packaging compared to plastics will benefit the industry. The poor environmental image of plastics coupled with its higher cost are also expected to have a positive impact on the demand prospects for fibre-based packaging in mature markets.

Some of the newer products, such as microflutes, will support the use of containerboards and corrugated boards in the competition against folding cartons. Retail- and shelf-ready packaging has opened new opportunities for corrugated board and has brought it closer to the consumers. Logistic and shelf space planning are key competitive advantages against other packaging substrates.

Recycled containerboard capacity has steadily gained share of the Western European containerboard market over the last 15 years. The share of these grades rose from c.77% during the last years of the 1990s to c.82%% in 2016. The growing importance of recycled containerboard has been driven by lower prices versus virgin grades (partly due to subsidies for energy uses), improving quality of testliner products and kraftliner substitutes, efforts by consumer goods companies to burnish their sustainability and consumer demand for recycled products.

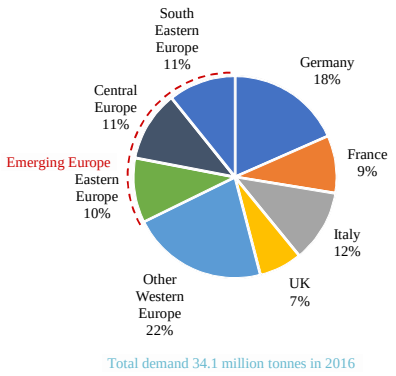
Like Western Europe, the containerboard market in Emerging Europe is dominated by recycled grades. Usage of recycled containerboard has increased substantially as a share of the total over the last 15 years within Emerging Europe. Recycled products represented 60% of regional containerboard consumption in the last years of the 1990s, but the share reached almost 84% in 2016 . Expanding availability of high-quality recycled grades, partially from Western European suppliers, and a greater focus on sustainability were major drivers of the rising share of recycled products.

Containerboard is generally a regional business, and the majority of the volumes is traded within Europe. However, some regions, such as the Middle East and North Africa, are net importers of containerboard. Hence, the demand from exports of the containerboard market is partially influenced by the evolution of the EUR/USD exchange rate.

END-MARKETS DYNAMICS

Demand for corrugated containers is primarily driven by the need for (i) packaging products for the transportation of a diverse range of consumer and industrial goods, such as processed and fresh food, agricultural products, beverages, industrial and consumer electronics, chemicals and pharmaceuticals and a range of other products and (ii) higher value-added corrugated products, such as those featuring enhanced graphics used for point-of-sale displays and consumer and shelf-ready packaging.

In Europe, the main markets are the developed Western European countries such as Germany, Italy, France, Spain and the United Kingdom. Poland and other Eastern European countries are much smaller markets, but are anticipated to grow at a faster rate than the more developed markets.



Note: Other Western Europe: Andorra, Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland
Central Europe: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia
Eastern Europe: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Russia, Ukraine
Southeastern Europe: Albania, Bosnia, Bulgaria, Croatia, Cyprus, Macedonia, Malta, Montenegro, Romania, Serbia, Turkey
Source: RISI (European Paper Packaging Forecast—5 years (March 2018))

In Europe, fast moving consumer goods account for c. 55% of corrugated board consumption (according to Vision Hunters), offering certain stability against economic fluctuations. However, there are clear differences between countries. Industrial products are the primary driver in Germany while food and consumer goods dominate in the United Kingdom and France. Germany is expected to remain the largest single market in the Western Europe corrugated box industry over the next 15 years. The continuing strength of the German industrial sector is predicted to boost corrugated box usage by 2.6% annually through 2026 according to Vision Hunters, which is the second highest forecasted growth rate of any country in Western Europe after Austria.

Key supply parameters

Containerboard is manufactured either by treating virgin fibres or by cleaning and screening recycled fibres before passing these through paper machines, which are comprised of a paper-forming section, a press section (where water is squeezed out), a drying section and the finishing. The containerboard is then wound into rolls and shipped to corrugated board plants.

Containerboard mills are large, capital expenditure intensive production facilities and the production landscape is continuously changing as a result of new capacity additions and closures. As there is a significant lead time between the planning and completion of new containerboard machines, the supply side tends to lag behind changes in demand.

Furthermore, the containerboard production process is reasonably specialized, such that there is very limited flexibility to switch from containerboard production to the production of other paperboard grades, or from kraftliner to testliner (or vice versa), in response to market conditions. This is one of the significant advantages of our PM1 mill, where the machines have this capability.

Corrugated sheets are interim products manufactured from containerboard at a sheet feeder plant or an integrated corrugated and converting plant. Corrugated sheets are then converted into corrugated containers at integrated converting plants or at sheet plants. The corrugated sheet is first printed, if required, and then formed into the final container (or box) shape usually by some combination of die-cutting, folding, gluing, stapling or stitching the sheet. Corrugated containers are designed specifically to meet individual customer requirements and there is a wide variety of designs available.

Corrugated sheets are bulky products, which tend to be produced and supplied locally due to high transportation costs, requirements of customers for supply chain integration and just-in-time delivery. The economic supply distance for corrugated sheets is typically around 300 kilometers. Therefore, there are many corrugated board plants and the market in Europe is more fragmented than the containerboard market.

Since the early 2000s, there has been a significant development in the European containerboard industry and its asset base: 15 new machines have started up, all of which are capable of producing the full range of recycled fibre grades. This is part of a constant push towards increasing efficiency and lowering manufacturing costs in order to ensure competitiveness. These manufacturing costs are exposed to raw material prices and availability (recycled paper vs. virgin pulp). The response from the suppliers has been to use cheaper raw materials both in containerboard and corrugated packaging production.

There have been shut-downs in Europe, but these have typically been of old and narrow machines with weak cost competitiveness and suboptimal trim fit and/or product portfolio. Shut-downs have typically been part of companies' asset strategy, and their volumes have typically been compensated by capacity increases in other production units. The production landscape is described in greater detail below.

The European containerboard and corrugated board industry has experienced several trends affecting product and product construction as well as production process. Some of the trends originate from the end-users (retail, consumers and brand-owners), but the industry itself has also managed to introduce new concepts. All these trends have raised the status of corrugated board from pure transportation packaging closer to retail and even consumer packaging. The key trends can be listed as follows:

- Light weighting, which has extended to both containerboard and corrugated board. This is a response to transportation cost pressure, as well as industry evolution and a trend towards eco-efficiency;

- Small flutes and multiwall constructions are partly related to the light weighting as the introduction of lower basis weight fluting has enabled the microflute concept and use of corrugated in consumer packages as well as increasing need in heavy duty applications;

- Die-cuts and point-of-sales (POS), which is to satisfy the demand for retail ready packaging;

- White-top liners and high-quality printing are for direct use consumer packages and shelf ready packaging; printing requirements are increasing in industrial packaging; and

- Wider corrugators have been introduced to improve the efficiency at corrugated plants and better fit with new containerboard machines.

Pricing dynamics

Containerboard prices are primarily a function of the prevailing supply-demand balance (in this respect, additional growth has resulted from the strong increase in e-commerce volumes), raw material prices and other operating costs, such as energy, chemicals and transportation.

Demand for containerboard has tended to develop in line with industrial growth rates due to the characteristics of the main end-user markets for corrugated containers. In contrast, the supply side of the containerboard market is fairly inelastic owing to capital intensity, long lead times between planning and completion of a mill and the low versatility of the paper machines. This can result in temporary supply/demand imbalances driving prices up and down, such as those which have been experienced in recent years.

Another driver of containerboard prices is the cost of the principal raw materials: recycled paper or virgin fibre. While wood prices historically have been relatively stable, recycled paper prices can vary widely on a regional basis depending on demand and tend to be volatile even within short time periods. Fluctuations in Asian demand (particularly Chinese demand) and seasonal patterns of collection and demand have been the principal factors driving the recycled paper price in recent years. Given the significant implications of price fluctuations of recycled paper on business performance, we (as well as several other industry participants) have therefore sought better access to recycled paper through a broad supplier portfolio including access to box plant clippings and direct supply contracts with municipalities or retailers from time to time. The cost of producing containerboard is also influenced by the prices of energy, starch, chemicals and transportation. Energy prices, in particular electricity, oil and natural gas, have experienced significant volatility in recent years, with a corresponding effect on paper production costs.

Containerboard is the main cost factor of corrugated sheets and of corrugated packaging overall. Therefore, corrugated sheets price usually follows containerboard price development with some delay, typically by about two to three months.

KEY MARKET DEVELOPMENTS

The corrugated box market in Western Europe has largely recovered from the economic crisis that impacted the region after 2008: the 2007 pre-crisis demand peak for corrugated box was crossed in 2014. Total box shipments amounted to 38.4 billion m2 in 2016, 0.4 billion m2 more than in 2015. RISI is expecting growth momentum to continue with 3.7%, 2.6% and 2.1% growth forecasted for 2017, 2018 and 2019, respectively. Over the long run, European shipments are expected to grow by 2.6% annually between 2016 and 2026 according to Vision Hunters (with Western Europe, Central Eastern Europe, and Southeastern Europe growing by 2.3% p.a., 4.1% p.a. and 3.8% p.a., respectively).

On the back of this market recovery, leading producers of containerboard and corrugated board have announced and implemented several price hikes throughout 2017. The total price increase in recycled containerboard in 2017 amounted to 100 to 110 €/ton. In the beginning of 2018, another price increase in recycled containerboard in a range of 30 to 40 €/ton was implemented in continental Europe.

Demand development in Europe

Western Europe

Containerboard usage in Western Europe had been experiencing solid growth along with corrugated box shipments in recent years. There was an uptick in demand in 2016 due to accelerating industrial production and increased consumer spending, with the regional apparent consumption reaching 23.1 million tons, surpassing the previous historical peak attained last year. 2016 also witnessed strong containerboard demand growth of 2.2% in Western Europe. RISI predicts growth in containerboard demand to accelerate next year and continue upwards, albeit at a slower rate.

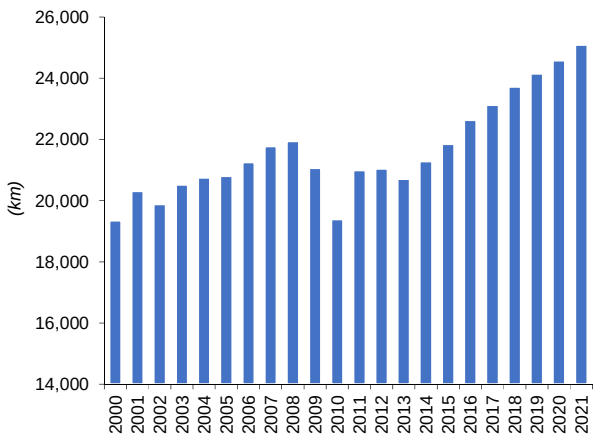
Emerging Europe

Growth in containerboard usage in Emerging Europe has continued over the past several years. However, the rate of increase has fallen to less than half of that registered over the last 15 years as a whole, from 7.7% per year (2000-2015) to 4.1% per year in 2016. Regional containerboard consumption reached 11.1 million tons in 2016 versus only 3.8 million tons in 2000.

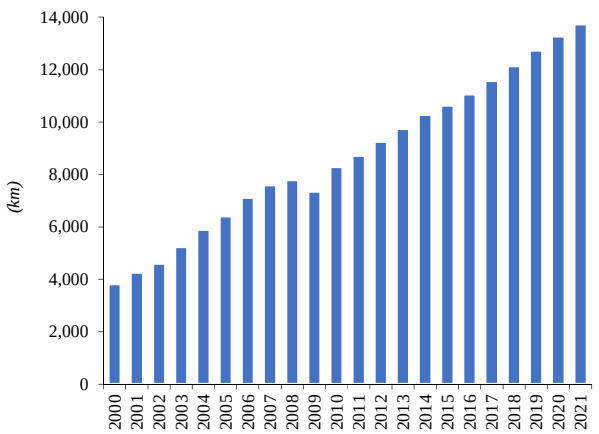
Within Emerging Europe, our core market is the Central European region, which has been the major driving force for Emerging Europe demand in recent years. Apparent containerboard consumption growth in the region was 6.7%, 11.0% and 5.4%, for 2014, 2015 and 2016, respectively, and the region is expected to continue to grow fast, per RISI.

The charts below show the evolution of containerboard consumption, by volume, in Europe between 2000 and 2020.

Western Europe



Emerging Europe



Source: RISI (European Paper Packaging Forecast—15 years (July 2017))

Corrugated board consumption has grown faster by sheet area than by volume during the past years due to the trend towards lighter basis weights. This trend is expected to continue in the future with corrugated board based on light-weight containerboard showing higher growth rates than the overall market, and future market growth expected to approximate the levels between 2002 and 2007.

Containerboard supply developments and operating rates evolution in Europe

Western Europe

Net capacity expansion in the Western European containerboard industry came to a halt over the past six years after expanding rapidly during the 1990s and first half of the last decade. In the past year there has been moderate growth. New capacity has continued to come on stream, mainly in lightweight recycled and white-top grades, but older, inefficient capacity has been shut. Regional capacity hit 24.4 million tons in 2007 and was still 24.6 million tons in 2013, according to RISI; since then it has grown to 26.2 million tons (2016). RISI expects capacity growth of 3.8%, 5.4% and 2.8% in 2017, 2018 and 2019, respectively.

Operating rates peaked in 2006 at 95% in Western Europe before dropping sharply to a bottom of 87% in 2009. Strong capacity management on the part of producers kept operating rates from sliding further, with RISI's numbers showing a 2% reduction in industry capacity in 2009. The continuing focus on capacity management has been instrumental in enabling operating rates to rebound back to the long-term average of 92% in 2010-2015. In fact, RISI shows that capacity utilization raised to above 94% in 2015 and 2016.

Capacity expansion is expected to turn positive again over the next several years. A number of conversions of existing graphic paper capacity have been announced, along with incremental upgrades of existing capacity. It appears that producers are hesitant to continue with their policy of scrapping older capacity in the face of improving prospects for the European economy. Even virgin containerboard capacity will expand during this period due to the announced conversion of a graphic paper machine in Finland to kraftliner.

Between 2008 and 2015, testliner capacity additions in Europe amounted to more than 3.0 million tons of new capacity. These additions, which represent approximately 10% of the existing capacity, reflect expansion decisions that were made two to three years earlier. The introduction of new capacity into a market that has rising input costs and volatile demand has forced a number of smaller, less efficient and non-integrated producers in Europe to close. In addition, strategic decisions by a number of larger producers have also resulted in mill closures.

Vision Hunters expects containerboard operating rates to decline to 93% in 2019 (from 96% in 2016) due to recent capacity expansions of both virgin and recycled fiber based grades. From 2023 onwards, the supply and demand balance is expected to tighten again assuming no new projects are announced, with a forecasted operating rate of 97% based on decided projects.

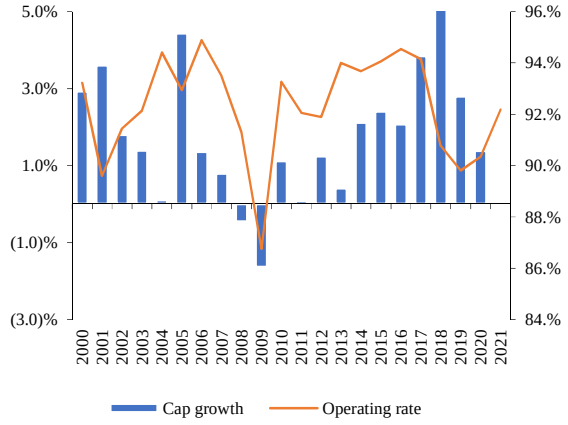
Eastern Europe

Containerboard capacity has expanded steadily in Emerging Europe since 2000, averaging growth of 428,000 tons per year. Most of the investment in the earlier part of this period involved rebuilds of existing machines to both increase capacity and improve quality. Over the past few years, new, state-of-the-art machines have been added, mainly in Central Europe and Turkey. Closures of existing, inefficient capacity offset a substantial portion of the capacity originating from the new machines. Regional containerboard capacity reached more than 11.9 million tons in 2016, up from just 5.1 million tons in 2000. The majority of the total expansion has been in the recycled sector.

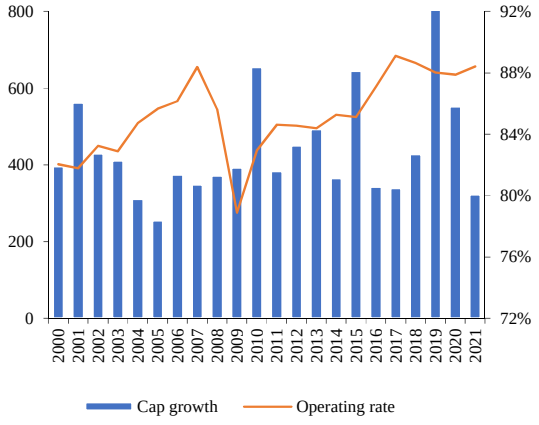
Operating rates in Emerging Europe improved consistently from 2000 to 2007, rising from 82% to 89%. The abrupt flattening in domestic demand in 2008-2009, along with a loss of share to imports from Western Europe and continuing investment in new capacity, resulted in regional capacity utilization decreasing to 79% in 2009. However, operating rates rebounded over the next four years, returning to 84% in 2013, and increasing to 87% in 2016. This rate is expected to be stable around 88-89% in the next five years.

Capacity is expected to continue expanding at a strong pace over the next several years in Emerging Europe. A number of second-hand recycled containerboard machines have been installed in Russia. Two new machines have been announced for Poland, along with one in Slovakia.

Western Europe



Emerging Europe



Source: RISI (European Paper Packaging Forecast—15 years (July 2017))

Containerboard price development in Europe

Testliner prices have trended upward during the last 15 years, although extreme volatility has tended to mask this trend. Real prices (in 2016 euros) averaged €382/ton in the latter part of the 1990s and have been around €461/ton over the last five years. The range in real prices during the last 20 years has been from a peak of €519/ton in 2000 to a low of €321/ton

in 2009. Both the trend and the range in real prices have been closely related to movements in recycled paper costs, which have been erratic on an annual basis and rising in real terms on a secular basis.

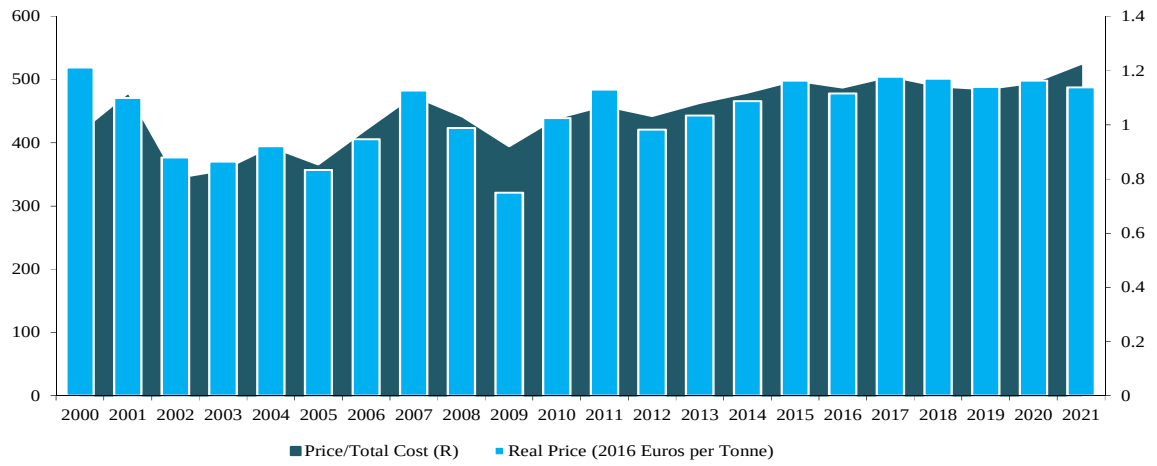
Strong demand for recycled containerboard and relatively low recycled paper costs allowed producers to generate significant profit margins through much of the 1990s. RISI's analysis shows the Western European testliner industry registering a price to total cost ratio of around 0.96 in 1995-2000. Rapidly increasing recycled paper costs and slowing demand growth resulted in profitability declining during the last decade, reaching a low of 0.91 in the recession year of 2009.

Containerboard prices remained stable until the second quarter of 2008, when prices started to decline as the rapid weakening of the global economy decreased the demand for corrugated boxes (and containerboard). This was reflected in decreased demand and prices for testliner. Containerboard demand started to increase in the end of 2009 and the upturn of the economy was seen in Europe by mid-year 2010. Growth resumed in the international trade from early 2010 and the external demand and prices for containerboard increased as well. The industry price to total cost ratio reached a peak of c. 1.16 in 2015 and is expected to stabilize around 1.20 from 2021 onwards.

European testliner prices declined by approximately 20% from August 2011 to February 2012 due to the soft supply/demand balance and due to decreased recycled paper prices. Improved demand as well as the increase of recycled paper prices turned testliner prices back to growth track in mid-February 2012; however, with the continuing economic slowdown, the price level was not sustainable and prices declined as a result. In 2015, however, prices have rebounded, increasing 7.0% in the last year in real terms, before decreasing by 4.0% in real terms in 2016.

All containerboard prices follow each other and recycled paper prices correlate well with them. Price difference between recycled paper and testliner has been on average just above €300. During the recessional years 2008-2010, prices dropped due to weak demand and the prices for testliner also dropped due to decline in raw material prices. After a steady increase in prices between 2013 and 2015, testliner prices have been coming down since the start of 2016 despite of healthy demand and no large capacity additions during 2016. This is due to lower exports and producers protecting market shares. However, European recycled containerboard producers raised prices by approximately €100-110/ton in 2017 and an additional €30-40/ton in early 2018.

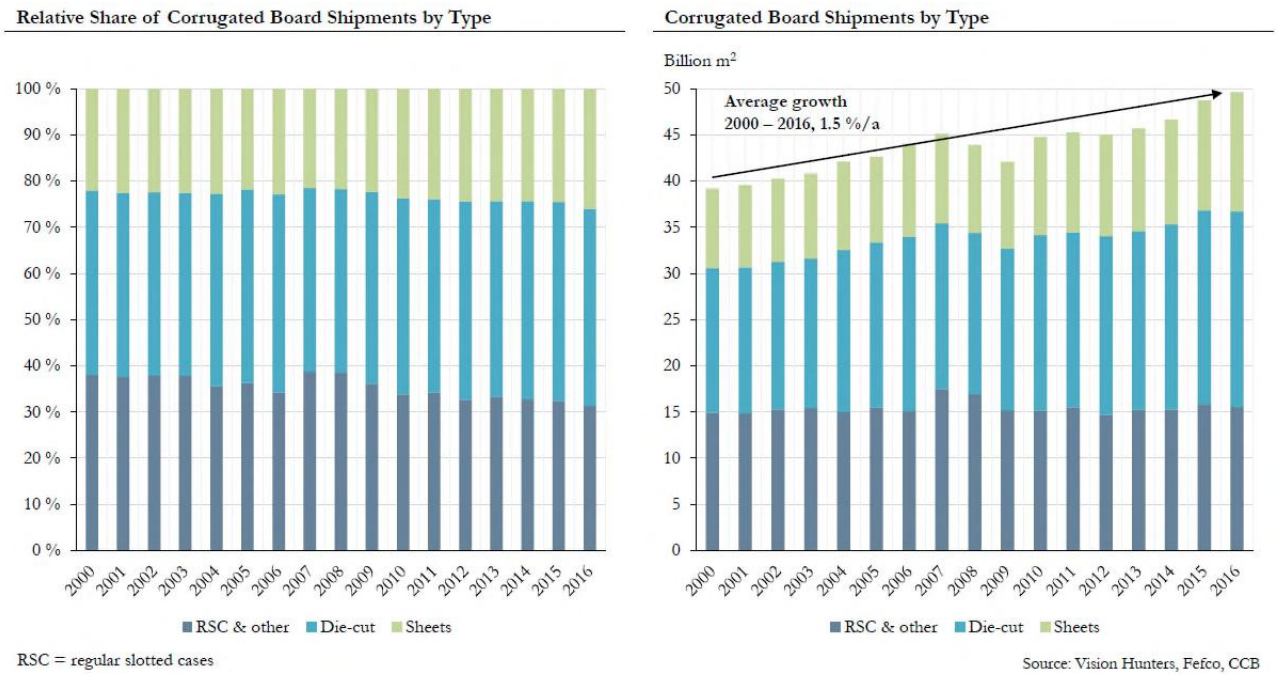
Western Europe Testliner 2 Free Delivered Net-Net Pricing and Profitability



Source: RISI (European Paper Packaging Forecast—15 years (July 2017))

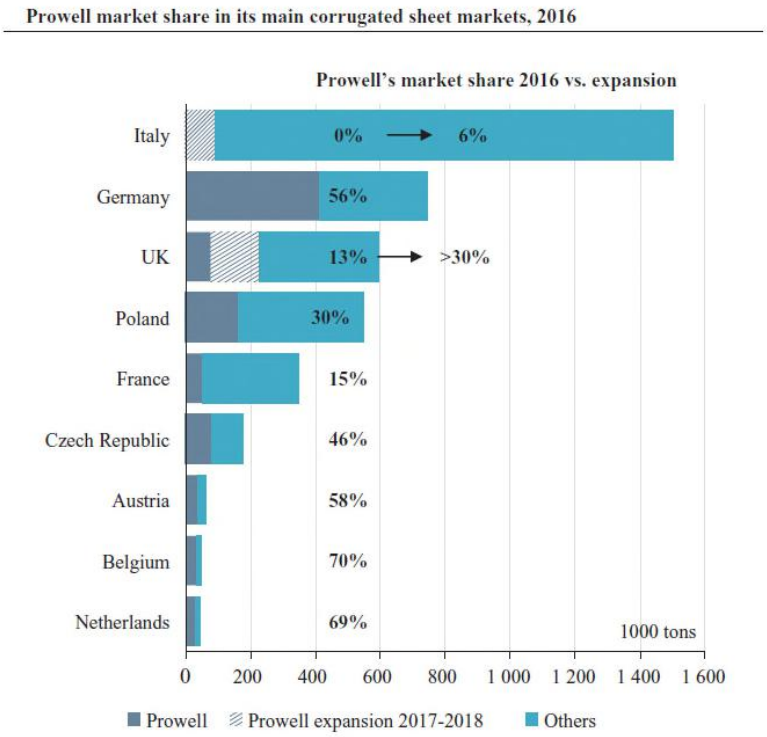
Corrugated board market developments

European corrugated board shipments totaled 49.6 billion square meters in 2016, of which 12.9 billion square meters were delivered in sheets, per Vision Hunters; the market has grown by 1.5% p.a. over 2000-2016. Vision Hunters estimates that the sheet market share has been slowly growing along with increased converting capacity and has 26% share of total corrugated shipments as of 2016, up from 22% in 2000. Growth above industry average has resulted in an additional increase of the corrugated sheets market by 2bn square meters since 2000.



Source: Vision Hunters (March 2018)

Prowell holds market leader position in sheet markets in Germany, the Czech Republic, Austria, Belgium and the Netherlands, and plans to further expand its footprint, most notably in Italy and the UK:



Source: Vision Hunters (March 2018)

MARKET AND COMPETITIVE LANDSCAPE

Containerboard products are largely standardized and, therefore, are subject to substantial price competition. Price is also an important driver of competition in the corrugated market. However, the corrugated market features a greater degree of differentiation than containerboard, with the purchasing decision for customers also being based on a range of other factors, including delivery lead time, quality of service, quality of product, consistency, quality of design and innovation in the packaging itself.

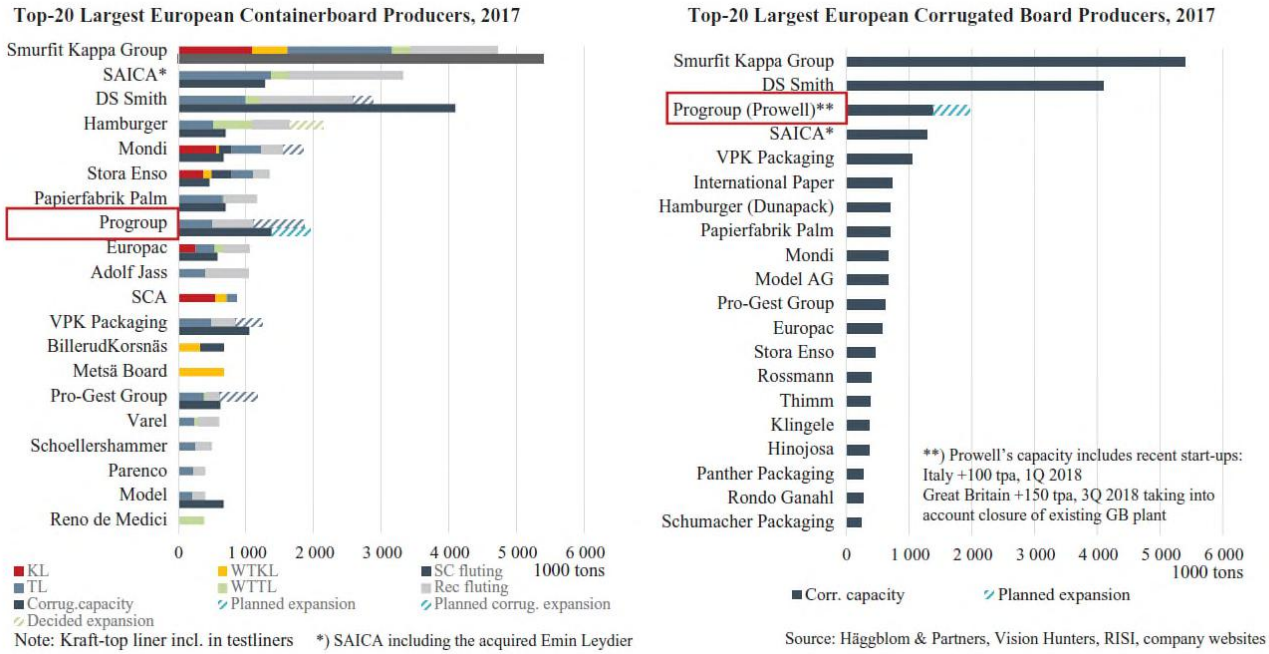
Existing European containerboard producers benefit from certain barriers to entry, including:

- the difficulty, especially in Western Europe, of finding appropriate locations (including proximity to reliable sources of virgin fibre in the case of kraftliner production and recycled paper in the case of recycled containerboard) to build new mills and obtaining approvals from local governments; and

- substantial capital costs associated with building a new plant of the scale and quality necessary to be cost-competitive with the production platforms of existing producers.

The corrugated board industry is more fragmented than containerboard and is comprised of a large number of small, often family-owned and locally operating companies. Smurfit Kappa and DS Smith are, in terms of scale, significantly larger than any other competitors in the market.

According to Vision Hunters, Prowell is the number three producer and largest independent corrugated board producer in Europe by volume produced and Propapier is the number six producer of recycled containerboard in Europe by capacity.



Source: Vision Hunters (March 2018)

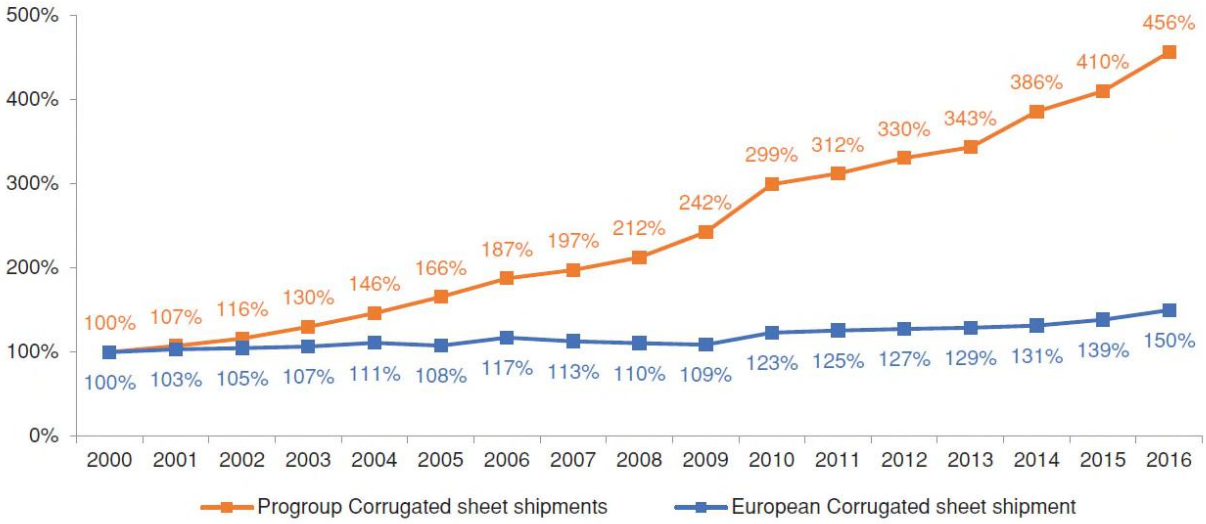
Many of our competitors are fully integrated and focus on serving larger end-customers in large batch sizes, including global consumer corporates. Our differentiated business model allows us to serve a higher number of customers, process a higher number of orders and maintain higher production volumes (up to 370 million square meters per annum), thereby generating economies of scale. We are solely focused on the production process as opposed to many of our competitors, who also focus on more complex and customer-specific packaging requirements for a smaller number of larger customers and, hence, only have a production output of typically 70-80 million square meters per annum. Our operational model allows for significantly higher productivity levels compared with industry average, per Vision Hunters.

Over the past two decades since our foundation, we have achieved leading market positions in the countries in which we operate. We are among the top three corrugated board producers in Europe (by production capacity) and our market share in our specific segment, the corrugated sheet market in Europe, is approximately 15%, according to Vision Hunters. In our core market segment, namely corrugated board sheets, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands and hold considerably higher market shares compared to our position in the overall European containerboard and corrugated board market, according to Vision Hunters. In containerboard production, we have a market share of approximately 4% by production capacity, according to Vision Hunters.

Unlike many of our competitors, who grew historically over many decades or had to integrate production infrastructures inorganically through acquisitions, we differentiate ourselves with a well-invested asset base and high-quality, complementary, modern and strictly aligned, high capacity production facilities placed purposefully in strategic locations. Our strategy has enabled us to experience above market growth rates resulting from organic growth alone. The CHP

Acquisition allowed us to further expand our asset base with a tailor-made power plant that was specifically designed to meet the steam requirements of our paper machine PM2.

Corrugated sheet shipments – Progroup growth vs. industry (2000-2016)

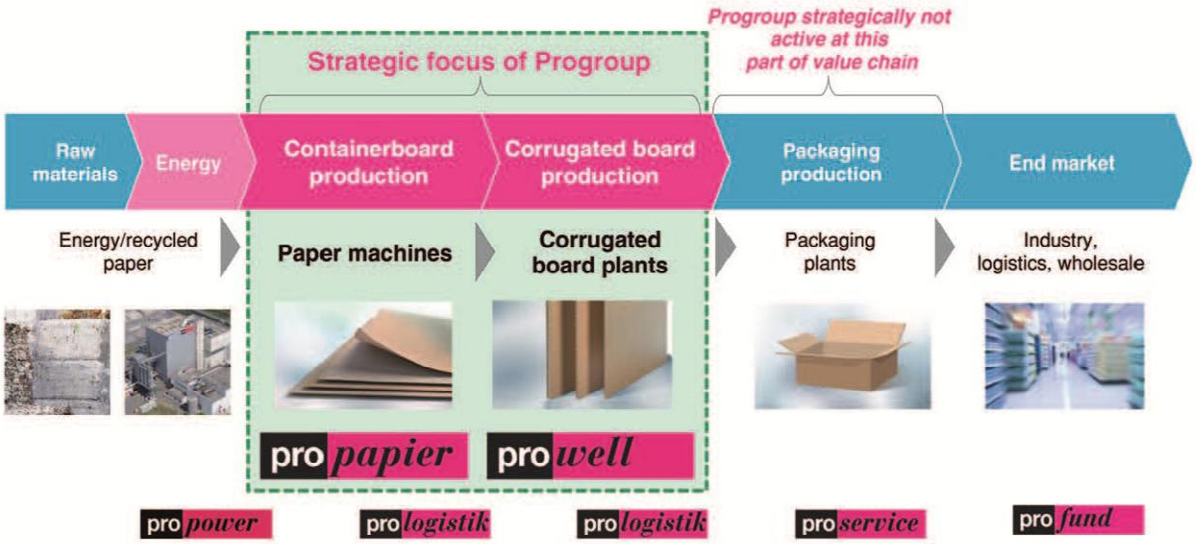


Source: Progroup

BUSINESS

OUR COMPANY

We are a leading, family-owned producer and supplier of containerboard and corrugated board in Central Europe and are headquartered in Landau, Germany. According to Vision Hunters, we are the third largest producer of corrugated board in Europe (by production capacity) through our Prowell business ("**Prowell**") and the sixth largest producer of recycled containerboard in Europe (by production capacity) through our Propapier business ("**Propapier**"). We focus on the highly efficient production and processing of standardized grades and customized small batch series of corrugated board sheets for our mostly family-owned box manufacturing customers. In this core market segment, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters. We believe we differentiate ourselves from other market participants (*i.e.*, fully integrated paper and packaging producers) through our strategic focus on those elements of the value chain that bring added-value to our customers in the packaging industry, *i.e.* the automated and integrated production of containerboard and corrugated board. Our customers serve various end markets, including industrial/manufacturing, consumer durables, processed foods, non-food manufactured consumer goods and fresh food. Unlike many fully integrated market players, we do not produce boxes and therefore do not compete with our box manufacturing customers but instead focus solely on the production of containerboard and corrugated board.



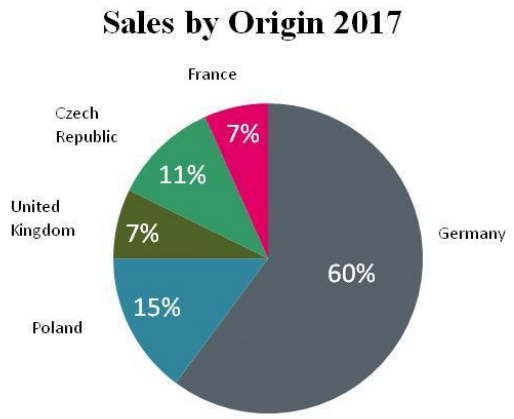
Through our large scale and highly flexible production, built up primarily via a greenfield approach, we are able to realize significant economies of scale. Since we commenced operations in 1992, we have carefully selected the locations of our production sites and have grown organically by pursuing primarily a greenfield strategy to create an optimal geographic set-up of our production sites across the markets in which we operate. As a result, we benefit from a well-invested asset base and production sites with high technological standards, resulting in a relatively low cost base compared to many of our competitors and relatively low requirements for additional capital expenditures in the short- to medium-term. Given the high technological standards of our production facilities, we believe we are well-positioned to benefit from major growth trends in our industry, such as (i) increasing demand for light-weight packaging, (ii) the increasing importance of small-size packaging due to the growing importance of e-commerce, and (iii) the general trend towards a more efficient and sustainable use of raw materials and energy, which can help reduce both costs and CO_2 emissions.

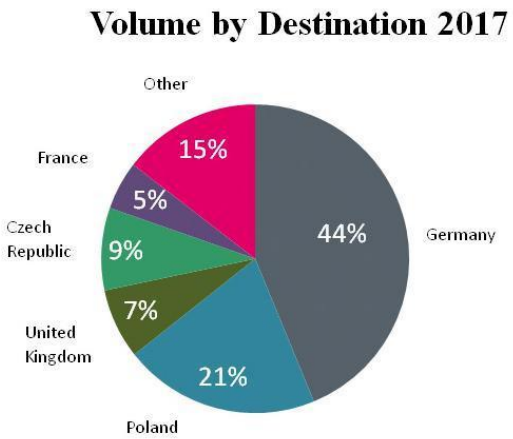
Our core business comprises Propapier and Prowell. The focus of Propapier's operations is highly flexible containerboard production using almost exclusively recycled paper, with high output volumes to increase cost efficiency and short delivery times. In 2015, 2016 and 2017, containerboard produced by Propapier accounted for most of the containerboard sourcing requirements of our corrugated board production within Prowell. We believe that a high degree of vertical integration and the ability of Prowell to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. In addition, our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options.

Propapier manufactures containerboard at our two paper mills in Germany, with an envisaged total annual production capacity of approximately 1,100,000 tons of containerboard. Our two paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, have complementary production layouts which allow us to produce brown containerboard with grammages between 60-230g/m^2 using almost exclusively recycled paper. This, in turn, allows us to internally source

consistently high-quality containerboard with the appropriate widths for Prowell's ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,250,000 tons of corrugated board. Our historic greenfield location strategy ensures close customer proximity and high production flexibility. As part of our historic greenfield location strategy and to secure a reliable supply of energy to our paper machine PM2 at clearly defined prices, we entered into framework and ancillary agreements with EnBW for the construction and operation of a combined heat and power plant (the "**CHP**") adjacent to our paper mill in Eisenhüttenstadt. Pursuant to these agreements, the CHP was owned by Propower GmbH, a former wholly-owned, indirect subsidiary of EnBW Energie Baden-Württemberg AG. Effective as of midnight on December 31, 2015, we acquired Propower GmbH, the CHP and certain related assets outright (the "**CHP Acquisition**"). As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves ("**Propower**").

In 2017, we sold approximately 1,011,000 tons of corrugated board and approximately 242,000 tons of containerboard to external customers across Europe, resulting in external corrugated board and containerboard sales, respectively, of €663.9 million (82.6% of total sales) and €99.7 million (12.4% of total sales). Propapier's total sales in 2017 include €18.8 million (2.3% of total sales) in revenues from the sale of electricity and revenues from the incineration of refuse-derived fuel resulting from the integration of the CHP as well as €8.5 million (1.1% of total sales) in sales from passing purchased fuel costs to Sales and Solutions GmbH. Total external sales by Prowell and Propapier in 2017 (including sales other than corrugated board or containerboard sales, respectively) amounted to €664.5 million (82.6% of total sales) and €128.5 million (16.0% of total sales). Our total sales and EBITDA in 2017 amounted to €804.3 million and €180.4 million, respectively. Sales in Germany (origin), our core market, accounted for 60.2% of total sales and 44% of sales by volume in 2017.





Primarily to support our core business, Propapier and Prowell, we have established our own logistics operations, including a fleet of currently 59 trucks ("**Prologistik**"). Most of the remaining €11.3 million in sales (1.4% of total sales) in 2017 were generated by Prologistik. We also provide marketing, communication and IT services, again primarily to support Propapier and Prowell ("**Proservice**"). Proservice did not generate any external sales in 2017 and does not have any significant assets or liabilities, but provides value-add services to our customers.

Founded in 1991, we are indirectly majority-owned by Jürgen Heindl, our founder and chief executive officer.

OUR STRENGTHS

We believe we benefit from the following competitive strengths.

Differentiated business model with leading market positions in attractive market environment

Our founder, Jürgen Heindl, designed a business model differentiating us from our competitors. Through our strategic value chain positioning in containerboard and corrugated board production only, we do not compete with our targeted customers, who are primarily family-owned, small and medium-sized businesses. Our core customers focus on packaging solutions for the end-customer and typically do not have their own corrugated board production capability. Many of our competitors are fully integrated and focus on serving larger end-customers in large batch sizes, including global consumer corporates. Our differentiated business model allows us to serve a higher number of customers, process a

higher number of orders and maintain higher production volumes per production site (up to 370 million square meters of corrugated board per annum), thereby generating economies of scale. We are solely focused on the production process as opposed to many of our competitors, who also focus on more complex and customer-specific packaging requirements for a smaller number of larger customers and, hence, only have an average production output of typically 70-80 million square meters per production site per annum.

In 26 years since our foundation, we have achieved leading market positions in the countries in which we operate. We are among the top three corrugated board producers in Europe (by production capacity) and our market share in our specific segment, the corrugated sheet market in Europe, is approximately 15% according to Vision Hunters. In our core market segment, namely corrugated board sheets, we are the market leader by volumes sold in Germany, Austria, Belgium, the Czech Republic and the Netherlands, according to Vision Hunters, and we hold considerably higher market shares in those markets compared to our position in the overall European containerboard and corrugated board market. Following the fast and successful ramp-up of our corrugated board production site (PW10) in Trzinica, Poland, we have also become a very significant player in the Polish market, and we further expect to become a significant player in the UK market, following the establishment and ramp-up of production at our proposed corrugated board production site (PW12) in Ellesmere Port, United Kingdom. In addition, the commencement of production at our corrugated board production site (PW11) in Drizzona, Italy in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons, marks our entry into the largest corrugated sheet board market in Europe. In containerboard production, we have a market share of approximately 4% by production capacity, according to Vision Hunters.

While we believe our differentiated business model, high reliability and quality of product supply, significant scale, internal sourcing and geographic coverage provide us with a competitive advantage in our core market segment, we also benefit from attractive market fundamentals of the overall industry.

The paper and packaging industry is experiencing overall growing demand from industrial economies in Central Europe, and we believe that Germany and Central Europe, our key markets, provide a positive economic outlook. From a product perspective, the increasing significance of light-weight paper and packaging solutions as well as small-size packaging and the increasingly online and mail order-driven retail sector is expected to further stimulate packaging growth. We believe our modern production facilities, particularly PM2, which is capable of producing light-weight paper grades economically on a commercial scale, position us well to benefit from these growth trends in the industry. Furthermore, production is driven by the strong increase in demand from emerging economies, where production and packaging standards are adapting to the standards of developed countries, from which we also benefit with our production in Poland and the Czech Republic

Uniquely designed, best-in-class and strategically located, low-cost production asset base built up via greenfield strategy

Since our foundation in 1991, we have carefully designed and selected our production operations and locations via a dedicated greenfield strategy to establish highly efficient, flexible and technologically advanced production facilities, which were ahead of the existing market standard at the time. We believe we are the fastest organically growing corrugated board producer in Europe and have developed a unique track record and expertise in successfully establishing new greenfield corrugated board production sites. This includes a dedicated and experienced in-house projects team tasked with identifying attractive market opportunities for profitable growth, completing the planning and construction phases of the relevant projects on time and on budget and managing fast and successful ramp-ups of production at the relevant sites.

Designing our production set-up primarily via a greenfield strategy allowed us to invest in the best available production specifications and optimize the alignment and compatibility of our paper machines, PM1 and PM2, with our corrugated board production machines. The current 2.5m, 2.8m and 3.3m trim widths of our various existing corrugated board plants can be very efficiently combined with the 5.8m trim width of PM1 (2 × 2.8m or 2.5m + 3.3m) and the 10.2m trim width of PM2 (4 × 2.5m or 3 × 3.3m), resulting in low volumes of cutting scrap and higher productivity.

Our corrugated board production sites have been purposefully located approximately 500 kilometers from each other. This footprint ensures close customer proximity with full regional coverage of our customers and limited overlap to limit the transportation distance in most circumstances to 250-300 kilometers. Our strategic footprint also allows us to achieve high production flexibility and reliable just-in-time delivery with short lead times. Furthermore, we are able to serve our customers from different locations, thereby optimizing transportation costs and capacity utilizations on a plant-by-plant basis, which is coordinated centrally from our headquarters in Landau following a “one mill approach”. We believe our location layout and organization give us a competitive advantage in terms of cost efficiency and customer orientation. On average, we serve approximately 50-80 customers per corrugated board production site and each of our production sites offers the entire range of customer services (e.g., 24 hour delivery and online ordering and tracking).

We believe that all of our plants (except for our existing corrugated board production site (PW8) in Ellesmere Port, United Kingdom) are equipped with state-of-the-art technology, which is the foundation of our low-cost and efficient production. We currently expect to close PW8 following commencement of production at our proposed new corrugated board "mega plant" (PW12) in Ellesmere Port. According to Vision Hunters, the asset quality of our paper machines is characterized as high and above comparable European containerboard and corrugated board producers. Performance metrics of PM1, such as capacity and technical age, are well above the industry average. PM2, which we believe to be among the world's most advanced paper machines for recycled super-light-weight paper and which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m^2, ranks best in class for all metrics and has set five new world records since its launch in 2010.

Unlike many of our competitors, who grew historically over many decades or had to integrate production infrastructures inorganically through acquisitions, we differentiate ourselves through our well-invested asset base and high-quality, complementary, modern and strictly aligned, high capacity production facilities placed purposefully in strategic locations. The completion of the CHP Acquisition on December 31, 2015 allowed us to further expand our asset base with a tailor-made power plant that was specifically designed to meet the steam requirements of our paper machine PM2.

Strong, diversified and long-standing customer base

We have long-standing relationships with many of our customers, some of which date back to the start of our operations in 1992. We have grown with our large German customers as they have expanded across Europe and have successfully entered into new relationships with key customers outside of Germany. We currently supply 350 to 400 different Prowell customers, with a strategic focus on family-owned, small and medium-sized companies. Our top five Prowell customers accounted for approximately 7%, 4%, 3%, 3% and 2%, respectively, of our total corrugated board sales, by tons, in 2017, while our top five external Propapier customers accounted for approximately 21%, 9%, 5%, 5% and 4%, respectively, of our total external containerboard sales, by tons, in 2017.

We believe that our ability to provide reliable delivery of high-quality, cost-effective and tailor-made products and being a family-owned business have enabled us to foster strong partnerships of mutual dependence with our mostly family-owned customers, operating as a fundamental part of their supply chains by improving inventory management, security of supply and customer service. We believe these strong relationships are one of the reasons for our track record of successfully passing through increases in the prices for containerboard to our corrugated board customers.

Our strong customer relationships are reinforced through a combination of our geographic reach, our manufacturing and logistics excellence, and the limited availability of alternative suppliers with the capacity and geographic proximity to provide a competitive offering. At some of our corrugated board production sites, certain long-standing customers have established their own box manufacturing plants in immediate proximity to our site, either on our own land or on land adjacent to our site (so-called "packaging park"). As a variation of this traditional packaging park model, we commenced production in October 2015 at our corrugated board production site (PW9) in Plössberg, Germany, which we established in immediate proximity to an existing packaging plant of our customer, Liebensteiner Kartonagenwerk, on land owned by our customer. As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant. Following the success of these two packaging park projects (PW9 and PW10), we also established our newest corrugated board production site (PW11) in Drizzona, Italy as a packaging park project in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l.

All versions of the packaging park model help us to further strengthen our relationships with key customers (or win significant new customers, as in the case of Imbal Carton S.r.l.) and benefit both us and the relevant customers. The high level of integration between our own corrugated board production and the box production of our customers also made possible through the packaging park model creates a number of efficiencies and largely eliminates freight and other logistics costs between Prowell and our packaging park customers. Our packaging park customers also typically purchase a very high percentage (up to 100%) of their corrugated board requirements for the relevant box plant from us, which means predictable, high volume orders and consistently high utilization levels for the relevant corrugated board production sites. Index pricing arrangements with our packaging park customers ensure a predictable pricing mechanism for all parties. It typically takes approximately two to three months for containerboard mills to pass on their raw material price increases to their customers, *i.e.* manufacturers of corrugated board. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for corrugated board manufacturers, including us, to pass these increases on to their customers.

Technology and innovation leader

There are general industry trends towards lighter and more functional packaging and towards a more efficient use of resources. The trend towards "light paper" (*i.e.*, containerboard) has been particularly strong in Germany and has been

further strengthened by the increasingly online and mail order-driven retail sector, which is expected to further stimulate demand growth for light packaging solutions. We believe that we are particularly well-positioned to capitalize on these trends with our paper mill in Eisenhüttenstadt, Germany, which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m^2. As demand for super-light-weight containerboard (with a grammage below 90g/m^2) is increasing, we believe that PM2 gives us a significant advantage over many of our competitors, both in terms of efficiency and product quality. In addition, we continuously work to improve our product designs, optimize the utilization of our assets and explore new ways to further reduce our input costs. In particular, we are focused on further reducing the use of fibre (*i.e.*, recycled paper) in our products as well as the amount of energy required for our production processes and the shipment of our products, in order to both maintain a competitive cost position in our industry and to reduce emissions and waste.

We have invested significantly in the development of a "green" range of "next generation" products working in close cooperation with BHS Corrugated GmbH, one of our equipment suppliers, and a team of researchers at the University of Applied Sciences (*Hochschule für angewandte Wissenschaften*) in Regensburg, Germany. We market these products under our own brands next fibre®, next board® and next box®. All of these product innovations involve the use of super-light-weight containerboard produced by our paper machine PM2 as well as innovative flute designs of our corrugated board formats, intended to further reduce raw material input and thereby further reduce weight, input costs and CO_2 emissions.

Significant synergies through high degree of vertical integration

In 2017, containerboard produced by Propapier accounted for approximately 80-85% of the containerboard sourcing requirements, by volume, of our corrugated board production within Prowell. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Prowell have increased from approximately 66% (or 74%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Propapier in 2015 to approximately 76% (or 87%, if we include containerboard sales to swap partners) of total containerboard sales, by volume, of Propapier in 2017. With the fast and successful ramp-up of production at our corrugated board production site (PW10) in Trzcinica, Poland during 2017 and early 2018, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018 and the expected completion of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom by the end of the third quarter of 2018, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. However, with the expected establishment of up to four further corrugated board production sites between 2019 and 2021, we expect to successively increase this net short position with regard to containerboard even further at least in the short-term to mid-term. As a result, we currently do not expect the volume of our external containerboard to significantly increase again unless and until we complete our proposed further paper machine project (PM3) For more details on our expansion projects and investment program, see also "*Business—Our Strategy—Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments*" below. With an envisaged total annual containerboard capacity of approximately 1,100,000 tons, Propapier produced approximately 1,024,000 tons of containerboard in both 2017 and 2015. In 2017, approximately 776,000 tons were sold internally to Prowell (2015: 680,000 tons of internal containerboard sales), and a further approximately 108,000 tons were sold pursuant to swap agreements with other containerboard producers (2015: 78,000 tons of sales to swap partners), which allow us to reduce transportation costs, optimize our production program and swap internally produced containerboard for certain containerboard grades we do not produce in sufficient quantities, such as kraftliner. The remaining approximately 134,000 tons of containerboard we sold in 2017 were sold externally (2015: approximately 268,000 tons of external containerboard sales, excluding sales to swap partners). With a total annual corrugated board production capacity of approximately 1,250,000 tons (including (i) 110,000 tons of capacity of our corrugated board production site (PW10) in Trzcinica, Poland, which commenced production at the end of January 2017 and (ii) 100,000 tons of capacity of our newest corrugated board production site (PW11) in Drizzona, Italy, which commenced production in early March 2018) as of the date of this annual report (2015: total annual corrugated board production capacity of approximately 1,020,000 tons), Prowell produced approximately 1,011,000 tons of containerboard in 2017, compared to approximately 837,000 tons of corrugated board in 2015. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Propapier and Prowell over the last few years has also been allowing us to further optimize our internal logistics and supply chain. See also "*—Our Strategy—Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases*" below.

Strong track record of profitable growth

Following the 2015 Refinancing, we successfully completed a number of recent expansion and other investment projects, including the CHP Acquisition as well as the successful establishment of three new corrugated board production sites (PW9, PW10 and PW11), with the construction of our new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom progressing on schedule. In addition, we successfully implemented a series of initiatives in recent years as part of our Continuous Improvement Program to improve the effectiveness of our sales and marketing activities, optimize (*i.e.*, minimize) our variable costs and stabilize our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. The completion of the CHP Acquisition, in particular, constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs. We believe the CHP Acquisition resulted in an EBITDA contribution of approximately €38.6 million and net cash savings of approximately €40.8 million in 2017, compared to our former contracting arrangement with EnBW, which significantly exceeded our expectations at the time of the CHP Acquisition. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Result of Operations—The CHP Acquisition*".

As a result of these and other factors, we have managed to continue to significantly improve our profitability and cash position and moved the Group to a structurally enhanced level of profitability in recent years. In particular, we have managed to increase our EBITDA from €81.7 million in 2013, to €125.1 million in 2014, €152.9 million in 2015, €154.7 million in 2016 (including an EBITDA contribution of approximately €20.9 million from the CHP Acquisition) and €180.4 million in 2017 (including an EBITDA contribution of approximately €38.6 million from the CHP Acquisition). During the same period, our EBITDA margin (calculated by dividing EBITDA by sales) improved from 14.0% in 2013 to 22.4% in 2017. Combined with our controlled investment strategy, which should normally allow us to adapt the amount of our expansion capital expenditures in line with our projected mid-term cash requirement, we believe we are in a strong financial condition to weather and/or adapt to challenges that may face us or our industry as a whole.

Committed family shareholders and experienced management team for long-term stability

Our company was founded in 1991 by Jürgen Heindl, our chief executive officer, and continues to be controlled by him and his two sons, Maximilian Heindl and Vinzenz Heindl. We believe this family link and the strong personal and long-standing financial commitment of our owners ensures our focus on stability, long-term value generation and prudent investment strategies. Jürgen Heindl's expertise is supported by a strong and growing management team with extensive industry experience, including within our Group. Our management team has impressively demonstrated its abilities by creating one of Europe's leading containerboard and corrugated board players in 26 years while withstanding economic downturns and restructurings. In response to the increasing size and complexity of the Group and to free up management capacity to allow Jürgen Heindl to focus on the strategic development of the Group, we have successfully professionalized and expanded our senior management team, including our Executive Board. Dr. Volker Metz rejoined the Group as our chief financial officer in November 2016, after previously having served as our head of controlling between 2009 and January 2016. Similarly, after spending seven years with one of our largest international competitors, Philipp Kosloh rejoined the Group in November 2016 and was appointed a deputy member of our Executive Board, with a view to becoming our first chief operating officer. Mr. Kosloh had previously served in various capacities within the Group between 2001 and 2009. In addition, after gaining several years of relevant work and management experience in the paper industry outside the Group, Maximilian Heindl joined the Group in August 2016 as the manager in charge of production and technology at Propapier (PM1 and PM2) and with overall responsibility for Propower. From August 1, 2017, Maximilian Heindl took over further responsibility within the Group as a deputy member of the Executive Board. Maximilian Heindl's work and management experience outside the Group, his management roles at Propapier and Propower, his appointment to the Executive Board and gradual assumption of further responsibilities are all part of a deliberate, long-term succession plan for our founder and chief executive officer Jürgen Heindl with the goal of securing our future as a successful family-owned business into the next generation.

OUR STRATEGY

Maintain and strengthen our position as a leading, low-cost corrugated board producer in Europe through controlled investments

To maintain and further strengthen our position as a leading, low-cost corrugated board producer in Europe in the long-term and to allow us to successfully meet ongoing and expected future market growth and the requirements of our customers with regard to supply certainty and product quality, we intend to continue to make prudent and controlled investments to further expand and improve the efficiency of our production facilities as part of our long-term "Two Twentyfive" strategy, as long as (i) we are confident we can achieve payback periods for our investments that are aligned with the maturity profile and relevant headroom under our financing arrangements, (ii) we maintain sufficient financial flexibility to weather and/or adapt to challenges that may face us or our industry as a whole, and (iii) any such investments would be consistent with our long-term target leverage. In addition to further capacity expansion, our "Two

Twentyfive" strategy, among other things, also contemplates a gradual technological transition and generation change away from the use of corrugators with a trim width of 2.5m, which are installed and currently in use at some of our older corrugated board production sites, to the use of more modern corrugators with trim widths of 2.8m or 3.3m at most of our corrugated board production sites.

Following the successful completion of the ramp-up of production at our corrugated board production site (PW9) in Plössberg, Germany, which commenced production in October 2015, we had already accomplished one of our long-standing strategic goals in 2016 and were already operating within our target corridor with regard to the level of integration between Propapier and Prowell. However, in the short-term to mid-term, we still intend to continue to focus our investment activities on further expanding our corrugated board production capacity to be able to seize what we believe are numerous further market opportunities for profitable growth, similar to those that led to the successful establishment of our most recent production sites (PW9, PW10 and PW11) in Plössberg (Germany), Trzcinica (Poland) and Drizzona (Italy). In continuation of our organic growth strategy, we intend to primarily achieve further growth by pursuing further expansion opportunities via greenfield projects.

In addition to the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland in 2017 and early 2018 following commencement of commercial production in April 2017, we commenced production at our newest corrugated board production site (PW11) in Drizzona, Italy, in early March 2018. As with our corrugated board production site (PW9) in Plössberg, Germany and our corrugated board production site (PW10) in Trzcinica, Poland, we established this newest site as a packaging park project in immediate proximity to the existing packaging plant of a customer, Italian packaging specialist Imbal Carton S.r.l., which will allow us to supply this new customer largely without freight and other logistics costs. We invested approximately €13 million into the establishment of this newest corrugated board production site. The commencement of production at our corrugated board production site (PW11) in Drizzona, Italy, with an annual corrugated board production capacity of approximately 100,000 tons, also marks our entry into the largest corrugated sheet board market in Europe. In addition, in October 2017, Prowell Ltd. broke ground and commenced construction of a new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom. This additional corrugated board production site, which is located a few kilometers from our existing corrugated board production site (PW8) in Ellesmere Port and which is currently scheduled to commence production toward the end of the third quarter of 2018, will operate with a 3.35m trim width and have an annual corrugated board production capacity of more than 200,000 tons. We believe that this new production site, with its large capacity and state-of-the-art equipment, will be one of the largest and most efficient corrugated sheet board plants globally and position us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins. We currently expect to invest a total of approximately €85 million in the establishment of the new site, including approximately €17 million in expenses we have already incurred in 2017. We established our existing corrugated board production site (PW8) at Ellesmere Port, which has an annual corrugated board production capacity of approximately 85,000 tons, in 2009 with a used corrugator with a 2.5m trim width, and we currently expect to close this existing corrugated board production site following commencement of production at the new site.

While we have historically pursued a pure greenfield growth strategy, including the three packaging park projects (PW9, PW10 and PW11) and our proposed new corrugated board production site (PW12) in the United Kingdom described above, we are also evaluating and will continue to evaluate opportunities to acquire attractive assets from competitors which would complement our existing network of production sites, advance our goal of further increasing our corrugated board production capacity and meet the other internal investment and financing criteria described above. In addition, in order to maintain and/or strengthen our relationships with certain large and long-standing customers or in response to opportunities to establish relationships with significant new customers, we will consider additional packaging park projects whereby we would establish corrugated board production sites at or in proximity to the packaging plants of the relevant customers.

With the fast and successful ramp-up at our corrugated board production site (PW10) in Trzcinica, Poland, we accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. With the commencement of production at our newest corrugated board production site (PW11) in Drizzona, Italy and the completion of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom, we expect that we will become a net purchaser of containerboard in 2018, i.e. that the recycled containerboard sourcing requirements of our corrugated board production within Prowell will significantly exceed the internal supply capacities of Propapier. In the short-term to mid-term, we nevertheless intend to continue to focus our investment activities on further expanding our corrugated board production capacity, and we currently expect to establish up to four further corrugated board production sites in Central Europe between 2019 and 2021. As a result of these proposed additional corrugated board production sites, we expect our annual corrugated board production capacity to increase from approximately 3.0 billion square meters (including our corrugated board production sites (PW11 and PW12) in Drizzona, Italy and Ellesmere Port, United Kingdom) to approximately 4.2 billion square meters.

Furthermore, in order to preserve our ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner in sufficient quantities to meet the majority of the sourcing requirements of the expanding corrugated board production within Prowell, we have also begun to actively pursue the realization of a potential further paper machine project (PM3), subject to the internal investment and financing criteria described above and taking into consideration market factors as well as the expected future containerboard sourcing requirements of Prowell. In particular, we have been evaluating several potential sites for the potential paper machine project (PM3) in Germany and are currently in advanced discussions with the land owner, the local municipality, local utilities and other stakeholders at one potential site. In addition, we have also commenced early-stage discussions with potential equipment suppliers for the potential paper machine project. If completed at all, we currently expect this potential further state-of-the-art paper machine (PM3) to have a total annual containerboard capacity of approximately 750,000 tons and to commence production in 2021. Following completion of the ramp-up phase of this potential further paper mill, this would mean an increase of the total annual containerboard capacity of Propapier from currently approximately 1,100,000 tons to approximately 1,850,000 tons. We currently expect that the proposed new paper machine (PM3) will have a 9.2m trim width, which would allow us to optimize containerboard production to meet the requirements of the more modern corrugators with trim widths of 2.8m or 3.3m at most of our newer corrugated board production sites, which would result in low volumes of cutting scrap and higher productivity. We expect to invest a total of approximately €375 million in the potential paper machine project over a several year period, with initial expenditures (e.g. for purchasing the land and certain preliminary work) as early as 2018 or 2019. We expect to fund any such investments with a combination of cash generated from our operating activities and additional borrowings.

Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases

We expect that the start of production at our newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018, the significantly increased capacity of the proposed new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom as well as further improved utilization of our other corrugated board production sites alone will lead to a significant further increase in the corrugated board production of Prowell, so that we will become a net purchaser of containerboard in 2018. In addition, we currently expect to establish up to four further corrugated board production sites between 2019 and 2021. See also "*—Expansion Projects and Investment Program*". Unless and until we complete the proposed new paper machine project (PM3), this expected increase in our corrugated board production combined with a current supply shortage in the European containerboard market, will likely cause us to further increase the level of internal containerboard sales to Prowell (and thereby the level of integration between Propapier and Prowell) in 2018 and to increasingly rely on purchasing containerboard from third party suppliers. We believe that targeted external containerboard purchases that meet the specific sourcing requirements of Prowell will give us additional flexibility and provide us with opportunities to further optimize (i.e., minimize) our variable costs, for example, by allowing us to purchase containerboard that matches the specific grade and optimal trim-width required for our corrugated board production from time to time, from external suppliers located in close proximity to the relevant Prowell plants. We hope this will allow us to further reduce cutting scrap, further optimize logistics expenses and give us additional flexibility to optimize the utilization of our own paper machines (PM1 and PM2).

Maintain cost leadership through continuous efficiency and profitability improvements

In order to maintain profitability throughout the economic cycle, we have implemented a comprehensive profitability improvement program (the "**Continuous Improvement Program**") to ensure the long-term success of our Group. Our Continuous Improvement Program focuses on (i) improving the effectiveness of our sales and marketing activities, (ii) optimizing (*i.e.*, minimizing) our variable costs and (iii) stabilizing our specific fixed costs in order to achieve sales excellence and maintain our position as one of the cost leaders in our industry. Since 2012, our main focus in connection with our goal of achieving sales excellence has been on (i) growing our external sales in excess of the general growth in market volumes (and thereby increasing our market share), (ii) maximizing the impact of the introduction of our "next generation" products into the market and (iii) optimizing our sales portfolio. As part of our efforts to optimize our variable costs, we have focused on (i) reducing our consumption of raw materials, (ii) optimizing our energy consumption and energy costs, especially at our paper mill in Eisenhüttenstadt (PM2), and (iii) reducing the purchase prices of our key production factors, such as recycled paper, starch and freight services. Overall, we have met or exceeded our targeted benefits through our Continuous Improvement Program. We intend to continue to implement our Continuous Improvement Program and identify and realize further improvement opportunities. See also "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Achieving further cost-savings and efficiency improvements through further increased external containerboard purchases*" above.

HISTORY

Our Group was founded in 1991, when Jürgen Heindl, our controlling shareholder and chief executive officer, established PROWELL Papierverarbeitung GmbH and launched our first plant (PW1) for the production of corrugated board in Offenbach a. d. Queich, Germany, in the following year. From the beginning, we intended to focus on the

highly-efficient production of small batch sizes of sheet board for small and medium-sized customers based on high technological standards. In 1996, a second corrugated board production site (PW2) was established in Douvrin, France, and, in 1998, a third corrugated board production site (PW3) was launched in Burg, Germany.

Another key milestone in the development of our Group was the establishment of our first paper mill in Burg with our paper machine PM1 for the production of medium- to heavy-weight containerboard with grammages of 100-230g/m^2. At the time, PM1 introduced a number of new technological features, including a "2 gap former", a "drum pulper", a "speed sizer" and a closed water loop that minimizes the creation of waste water. PM1 represented a significant intermediate step towards the high-speed production of lighter containerboard.

In 2002 and 2005, respectively, we further expanded our corrugated board capacity by launching our fourth and fifth corrugated board production sites in Rokycany, Czech Republic (PW4) and in Schüttorf, Germany (PW5). The corrugators at those two production sites have a width of 3.3 meters, which represented a new technology standard for the industry at the time and resulted in significant productivity gains. In 2007, we established Europe's largest corrugated board production site in Offenbach a. d. Queich, Germany (PW6), replacing the original PW1 facility at the same site. In 2009, we realized another two greenfield projects with the construction of our corrugated board production sites in Strykow, Poland (PW7) and Ellesmere Port, United Kingdom (PW8).

Also in 2009, we commenced construction of our second paper mill in Eisenhüttenstadt, Germany, with our paper machine PM2 commencing production of super-light-weight to medium-weight containerboard in March 2010. To secure a portion of the necessary funding for our €420 million investment in our paper machine PM2, we raised additional equity in 2008 and 2009. In particular, Jürgen Heindl established JH-Holding, our controlling shareholder, in 2007. JH-Holding entered into the Former JH-Holding Facility and used a portion of the proceeds from its borrowings under the Former JH-Holding Facility to subscribe for additional shares in the Company. In addition, the Company issued preference shares to BWK GmbH Unternehmensbeteiligungsgesellschaft.

To secure a reliable supply of energy to our paper machine PM2, we entered into certain framework and ancillary agreements with Propower GmbH and its parent company Sales & Solutions GmbH (formerly EnBW Energy Solutions GmbH) in 2008 for the construction and operation of the CHP adjacent to our paper mill in Eisenhüttenstadt. The CHP commenced operation in 2011.

In July 2014, we announced a strategic investment in the construction of our corrugated board production site (PW9) in Plössberg, Germany adjacent to and connected with a packaging plant of our customer Liebensteiner Kartonagenwerk. This site commenced production in October 2015. At our corrugated board productions sites in Burg, Offenbach, Schüttorf and Ellesmere Port, some of our customers have established their own production sites in close proximity to, or even on, our production sites. With our corrugated board production site (PW9) in Plössberg, Germany, we followed our customer for the first time and set up our facility at the existing site of a customer.

In April 2015, we refinanced all then outstanding amounts under our Former Senior Credit Facility with the proceeds from the issuance of €250,000,000 aggregate principal amount of our Senior Secured Fixed Rate Notes and €150,000,000 aggregate principal amount of the Company's senior secured floating rate notes due 2022, and we also entered into the Super Senior Revolving Credit Facility. At the same time, JH-Holding Finance SA, a newly incorporated finance subsidiary of JH-Holding, the Company's direct controlling shareholder, also issued the PIK Toggle Notes, primarily to fund the acquisition of all rights under the Former JH-Holding Facility and to fund the acquisition of all preference shares in the Company then held by BWK GmbH Unternehmensbeteiligungsgesellschaft. For more information about the 2015 Refinancing, please see "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The 2015 Refinancing*".

Effective as of midnight on December 31, 2015, we acquired Propower GmbH, the CHP and certain related assets outright. As a result thereof, we started producing a significant portion of the energy required for the operation of our paper machine PM2 ourselves. The completion of the CHP Acquisition constituted a significant milestone in our efforts to optimize our cost structure and allowed us to significantly reduce our energy costs.

As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant.

Following the success of the two packaging park projects (PW9 and PW10) in Plössberg, Germany and in Trzcinica, Poland, we also established our newest corrugated board production site (PW11) in Drizzona, Italy as a packaging park project in immediate proximity to the existing packaging plant of our new customer, Italian packaging specialist Imbal Carton S.r.l. The commencement of production at this newest corrugated board production site (PW11) in Drizzona, Italy in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons, also marks our

entry into the largest corrugated sheet board market in Europe. In addition, in October 2017, Prowell Ltd. broke ground and commenced construction of a new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom. This additional corrugated board production site, which is located a few kilometers from our existing corrugated board production site (PW8) in Ellesmere Port and which is currently scheduled to commence production toward the end of the third quarter of 2018, will operate with a 3.35m trim width and have an annual corrugated board production capacity of more than 200,000 tons. We believe that this new production site, with its large capacity and state-of-the-art equipment, will be one of the largest and most efficient corrugated sheet board plants globally and position us well to further grow in the United Kingdom, a market in which we have historically been able to achieve above average EBITDA margins. We currently expect to close our existing corrugated board production site (PW8) at Ellesmere Port, United Kingdom following commencement of production at the new site.

In 2007, we reorganized our corporate structure in order to streamline our organization and to better align our corporate structure with our business activities. Since then, the Company has been the management holding company for our Group, responsible for centrally managing our business operations:

- **Progroup** refers to the centralized management and administration of the Group by Progroup AG, the Company, from our headquarters in Landau, Germany.

- **Propapier** encompasses our containerboard production activities at our two mills in Burg (PM1) and Eisenhüttenstadt (PM2) (both located in Germany) and also includes the related energy production of Propower at the CHP adjacent to our paper mill in Eisenhüttenstadt.

- **Prowell** encompasses our corrugated board production at our ten production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom.

- **Prologistik** encompasses our own logistics operations, including a fleet of trucks we operate primarily to service the business operations of Propapier and Prowell.

- **Proservice** provides marketing, communication and IT services in support of Propapier and Prowell.

- **Profund** has, at times, supported Prowell customers in obtaining funding for their own expansion projects.

As a consequence of the CHP Acquisition, effective as of midnight on December 31, 2015, we were finally able to integrate the energy production activities of Propower into our Group.

The following is a brief description of our core business units, Propapier and Prowell.

PROPAPIER

Propapier encompasses our containerboard production at our two paper mills in Burg and Eisenhüttenstadt, with a total annual production capacity of approximately 1,100,000 tons of containerboard. Our two paper machines, PM1 in Burg and PM2 in Eisenhüttenstadt, are complementary to each other due to different production layouts and allow us to produce brown containerboard with grammages between 60-230g/m^2 using almost exclusively recycled paper. This, in turn, allows us to internally source consistently high-quality containerboard with the appropriate widths for our corrugated board production sites.

The focus of Propapier's operations is highly flexible containerboard production, with high output volumes to increase cost efficiency and short delivery times. During 2017, containerboard produced by Propapier accounted for approximately 80-85%, by volume, of the containerboard sourcing requirements of our corrugated board production within Prowell. As a result of the steady expansion of our corrugated board production capacity in recent years, internal containerboard sales to Prowell have increased to approximately 76% (or 87%, if we include containerboard sales to swap partners) of the total sales, by volume, of Propapier in 2017, which means that we have accomplished one of our long-standing strategic goals and have already been operating at the top end of our long-term target corridor with regard to the level of integration between Propapier and Prowell. We believe that a high degree of vertical integration and making full use of the ability to internally source consistently high-quality containerboard in a cost-efficient and highly flexible manner creates significant synergies for our business. At the same time, we believe that the high share of internal containerboard sales may help us stabilize or improve our overall Group margins by reducing our exposure to lower or more volatile margins (compared to corrugated board margins) of certain external containerboard sales. Our customers benefit from our integrated approach through short lead times, just-in-time delivery and online ordering and tracking options. The steady increase in the degree of vertical integration between Propapier and Prowell over the last few years has also been allowing us to further optimize our internal logistics and supply chain. In 2017, our Propapier operations

generated €128.5 million in external sales, which represented 16.0% of our total sales. The majority of these external containerboard sales were generated under one-year contracts with packaging customers. The remainder of our external containerboard sales in 2017 was generated through spot market and multi-year supply agreements. Our external containerboard customers include both other producers of corrugated board as well as commodity traders. In 2017, our five largest Propapier customers accounted for approximately 45% and our ten largest Propapier customers for approximately 64% of our external containerboard sales by volume.

Paper Machine PM1

Launched in 2001, our paper machine PM1 marked the start of the Group's vertical integration into the production of containerboard. With a trim width of 5.8 meters, it produces medium- to heavy-weight containerboard with grammages of 100-230g/m^2 using recycled fibre and, to a small extent, virgin fibre. At the time of its launch in 2001, we believe that PM1 was the world's technologically most advanced containerboard paper machine setting new technology standards, including with the use of a closed water cycle, thereby minimizing the creation of waste water. Through a series of investments and optimization measures since its launch, we have been able to significantly improve the annual capacity of PM1 from approximately 287,000 tons of containerboard in 2001 to approximately 420,000 tons in 2017. In addition, since the launch of our paper machine PM2, we further developed PM1 towards the production of heavier paper grades (*i.e.*, grammages of 100-230g/m^2), including testliner, kraftliner, proliner K, fluting paper and promedium S.

Paper Machine PM2

Launched in 2010, our paper machine, PM2, is calibrated to produce super-light-weight to medium-weight containerboard, including testliner and fluting paper, with grammages of 60-130g/m^2 using almost exclusively recycled fibre. We believe that PM2 is among the world's most advanced paper machine based on trim width and designed speed. This allows us to set new industry standards with respect to raw material efficiency, cost leadership as well as containerboard and corrugated board design. With its ability to produce super-light-weight paper grades, PM2 helps us to reduce consumption of recycled paper. For more information about our range of "next generation" products, including next fibre® and next board®, see "*—Sustainability Focus; Research and Development*" below. With a trim width of 10.2 meters, PM2 has an annual containerboard capacity of approximately 680,000 tons, and since its launch in 2010, PM2 has set five new world records for production speed of various lightweight paper grades. We believe that PM2 enables us to generate significant savings in fibre input, which is essential to our ability to improve our competitive position and future profitability.

PROWELL

Prowell encompasses our production of high-quality corrugated board at our ten production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom, with a total annual production capacity of approximately 1,250,000 tons of corrugated board.

More than 45% of our total corrugated board production capacity is located in Germany where we have a total annual corrugated board production capacity of approximately 565,000 tons at four different production sites. Our German corrugated board production sites primarily serve the German market. Our production site in Douvrin, France, has an annual corrugated board production capacity of approximately 85,000 tons and primarily serves markets in France and in the Benelux countries.

Our plants in Rokycany, Czech Republic, Strykow and Trzcinica, Poland are well-positioned to serve Eastern European markets. Our Rokycany site has an annual corrugated board production capacity of approximately 140,000 tons and our Polish sites in Strykow and Trzcinica have an annual corrugated board production capacity of approximately 165,000 and 110,000 tons, respectively.

Our corrugated board production site in Ellesmere Port, United Kingdom has an annual corrugated board production capacity of approximately 85,000 tons and serves the UK market.

The production at our newest corrugated board production site in Drizzona, Italy commenced in early March 2018, with an annual corrugated board production capacity of approximately 100,000 tons. It marks our entry into the largest corrugated sheet board market in Europe.

Since the establishment of our Group, we have planned and developed our production sites primarily as greenfield projects and, more recently, as packaging park projects to ensure the optimal geographic location as well as a high technological standard for each site. Our Prowell operations focus on the efficient and flexible production of customized small batch series, with a high degree of automation at all our production sites, both with respect to the production process itself as well as order handling. We believe we offer significant added value to our customers by offering fully

automated online ordering, reliable and just-in-time delivery within 24 hours for selected products and online order tracking. For more information, see "*—Information Technology and Process Management*".

Our range of Prowell corrugated board products includes all customary single-wall, double-wall and triple-wall flutes, and we have devoted significant time and efforts to developing a range of "next generation" products which feature reduced raw material consumption while maintaining or even improving technical specifications. For more information about these products, including next board® and next box®, see "*—Sustainability Focus; Research and Development*".

In 2017, our Prowell operations generated €664.5 million in sales or 82.6% of our total sales in 2017. We have established a strong and long-standing customer base, with some of our customer relationships dating back to the beginning of our operations in 1992. We have grown with our large German customers and have also successfully entered into new relationships with key customers outside of Germany. Today we supply 350 to 400 different Prowell customers. In 2017, our five largest Prowell customers accounted for approximately 19% and our ten largest Prowell customers for approximately 28% of our corrugated board sales by volume. The same year, our largest single customer generated approximately 7% of our total corrugated board sales by volume.

We have established long-term strategic business relationships with many of our largest corrugated board customers. We believe that our ability to provide reliable delivery of high-quality, cost-effective and tailor-made products and being a family-owned business have enabled us to foster strong partnerships of mutual dependence with our mostly family-owned customers, operating as a fundamental part of their supply chains by improving inventory management, security of supply and customer service. However, consistent with industry practice, our business relationships are not governed by long-term agreements with fixed prices and sales volumes.

We believe that our differentiated business model is particularly beneficial for many of our small to medium-sized customers with a decentralized production. For some of our larger customers that purchase a high percentage (typically 70% or more) of their corrugated board requirements from us, we offer predictable pricing for our corrugated board products through index pricing arrangements. In addition, at some of our corrugated board production sites, certain long-standing customers have established their own box manufacturing plants in immediate proximity to our site, either on our own land or on land adjacent to our site (so-called "packaging park"). As a variation of this traditional packaging park model, we commenced production in October 2015 at our corrugated board production site (PW9) in Plössberg, Germany, which we established in immediate proximity to an existing packaging plant of our customer, Liebensteiner Kartonagenwerk, on land owned by our customer. As a further variation of the packaging park model, we commenced production in the first quarter of 2017 at our corrugated board production site (PW10) in Trzcinica, Poland on land we purchased from our large customer Janmar Centrum adjacent to its existing packaging plant. All versions of the packaging park model help us to further strengthen our relationships with key customers and benefit both us and the relevant customers. The high level of integration between our own corrugated board production and the box production of our customers also made possible through the packaging park model creates a number of efficiencies and largely eliminates freight and other logistics costs between Prowell and our packaging park customers. Our packaging park customers also typically purchase a very high percentage (up to 100%) of their corrugated board requirements for the relevant box plant from us, which means predictable, high volume orders and consistently high utilization levels for the relevant corrugated board production sites. To ensure a predictable pricing mechanism for all parties, we also typically have index pricing arrangements with our packaging park customers.

In 2017, approximately 6% of our total volume sales by surface area were generated under index pricing arrangements with our customers. The prices under these arrangements are linked to a containerboard market price index. Although these arrangements generally do not involve minimum sales volumes, demand levels are typically stable and we are in regular contact with our customers to ensure we have reasonable visibility over sales volumes for the upcoming year. In addition, approximately 17% of our volume sales by surface area in 2017 were attributable to packaging park customers. Customers accounting for approximately 69% of our volume sales by surface area in 2017 submitted their orders electronically and communicated directly with our IT systems via e-box, which offers those customers certain benefits in terms of order processing and tracking. It typically takes approximately two to three months for containerboard mills to pass on their raw material price increases to their customers, *i.e.*, manufacturers of corrugated board. In turn, the manufacturers of corrugated board generally attempt to raise prices to recover containerboard cost increases. It generally takes approximately two to three months for corrugated board manufacturers, including us, to pass these increases on to their customers.

PRODUCTION FACILITIES AND THE CHP

The following table provides an overview over our ten corrugated board production sites (PW2 - PW11) as well as our two paper mills (PM1 and PM2) and our combined heat and power plant (CHP):

Site	Size (land)	Property owned/ leased	Approximate Annual Production Capacity (in tons, unless otherwise noted)	Use
Douvrin, France (PW2) .	68,323 sqm	Owned	Production Capacity: 85,000	• Office space • Corrugated board production • Warehouse
Burg, Germany (PW3) ..	53,807 sqm	Owned	Production Capacity: 130,000	• Office space • Corrugated board production • Warehouse
Rokycany, Czech Republic (PW4).....	126,704 sqm	Owned	Production Capacity: 140,000	• Office space • Corrugated board production • Warehouse
Schüttorf, Germany (PW5).....	131,581 sqm	Owned	Production Capacity: 155,000	• Office space • Corrugated board production • Warehouse/high rack warehouse
Offenbach/Queich, Germany (PW6)	145,306 sqm	Owned	Production Capacity: 180,000	• Office space • Corrugated board production • Warehouse/high rack warehouse
Strykow, Poland (PW7).	239,138 sqm	Owned	Production Capacity: 165,000	• Office space • Corrugated board production • Warehouses/high rack warehouse
Ellesmere Port, United Kingdom (PW8).....	19,313 sqm	Leased	Production Capacity: 85,000	• Office space • Corrugated board production • Warehouse
Plössberg, Germany (PW9).....	27,608 sqm	Leased	Production Capacity: 100,000	• Office space • Corrugated board production • Warehouse-
Trzcinica, Poland (PW10).....	27,620 sqm	Owned	Production Capacity: 110,000	• Office space • Corrugated board production • Warehouse
Drizzona. Italy (PW11) .	24,722 sqm	Leased	Production Capacity: 100,000	• Office space • Corrugated board production • Warehouse
Burg, Germany (PM1)...	235,522 sqm	Owned	Production Capacity: 420,000	• Office space • Containerboard production • Warehouse
Eisenhüttenstadt, Germany (PM2)	256,125 sqm	Owned	Production Capacity: 680,000	• Office space • Containerboard production • Warehouse
Eisenhüttenstadt, Germany (CHP)	67,585 sqm	Owned	Energy Generation Capacity: 150 MWth (steam) and 32 MWel (electricity)	• Office space • Combined heat and power plant • Refuse-derived fuel bunker

PROCUREMENT/PURCHASING

Overview

Our most important purchasing items include recycled paper, containerboard, energy and freight, which collectively accounted for 72% of our total procurement volume in 2016 and 75% in 2017. For these purposes, total procurement volume is defined as cost of material, other operating expenses and income from passing through the cost of gas to Sales & Solutions GmbH as well as, in 2015, income from sales of refuse-derived fuel and fuel oil to Propower GmbH.

The following table sets forth the total cost in euros for each of these items in 2015, 2016 and 2017:

	Year ended December 31,		
	2015	2016	2017
	(unaudited) (€ in million)		
Recycled paper.....	128	146	163
Containerboard.....	109	114	160
Energy[(1)].....	92	53	54
Freight[(2)].....	61	61	62

(1) In addition to the cost of electricity, gas and steam, "Energy" also includes the cost of water and waste water treatment as well as income from passing through the cost of gas to Sales & Solutions GmbH in 2016 and 2017 and, in 2015, also income from sales of refuse-derived fuel and fuel oil to Propower GmbH, which was

reclassed from cost to earnings in 2016 income following the integration of the CHP into our business. Therefore, energy cost stated above differ from the energy cost shown as part of cost of materials.

(2) In 2016, we re-classified certain accounts within operating expenses in further development of our investor reporting. As a result, the way we calculate freight expenses for the years ended December 31, 2015 and 2016 as presented in the table above differs slightly from the way we previously calculated them.

Other procurement items, such as starch or maintenance services, accounted for an aggregate of €143 million in 2016 and €143 million in 2017.

Most of our procurement and purchasing activities are concentrated in a centralized purchasing organization at our headquarters in Landau, which is responsible for purchasing containerboard, freight services, energy as well as other supplies. In addition, our two paper mills in Burg and Eisenhüttenstadt have local purchasing departments that are responsible for "technical" purchases, including starch, chemicals, maintenance services as well as other technical supplies. Our local purchasing department at our paper mill in Eisenhüttenstadt also centrally handles all purchases of recycled paper for the Group. By centralizing many of our purchasing activities, we aim to maximize our purchasing power, while at the same time building a high degree of expertise. The markets and prices for the most important production costs in our business, such as containerboard, energy and recycled paper, are driven by international supply and demand and require Group-wide purchasing strategies in order to optimize results. Our strategies include a mixture of mid-term supply contracts and spot purchasing of raw materials.

The main raw material for the production of containerboard is recycled paper. As described above, all recycled paper for the Group is purchased centrally by our local purchasing department at our paper mill in Eisenhüttenstadt. In 2016 and 2017, Propapier purchased a total of approximately 1,168,000 tons and 1,133,000 tons, respectively, of recycled paper from a broad portfolio of more than 50 suppliers. Prices for recycled paper have been highly volatile in the past. By improving our supplier portfolio management, we have been able to improve our average purchasing conditions in recent years. In making our purchasing decisions with respect to recycled paper, we can choose from a wide variety of suppliers. For the bulk recycled paper grades B12 and B19, we have entered into long-term supply agreements with a volume of 1,163,200 tons, which we expect to cover effectively all our related requirements. We purchase approximately 9% of our total recycled paper requirements under fixed volume contracts with a term of between one and four years and either fixed prices or index-linked prices. For approximately 55% of our total recycled paper purchases, we renegotiate prices on a monthly basis. Approximately 45% of our recycled paper purchases involve prices linked to relevant indices, such as Euwid or indices published by the German Federal Statistical Office (*Statistisches Bundesamt*).

The main input cost for our production of corrugated board is containerboard. In 2016 and 2017, Prowell purchased approximately 983,000 tons and 1,011,000 tons, respectively, of containerboard. Approximately 80% to 85% of which were supplied internally by Propapier. The remainder was purchased from a portfolio of approximately 25 external containerboard suppliers. External purchases of containerboard primarily involved purchases of kraftliner and white testliner. To reduce transportation costs for shipments of containerboard from our paper mills to our corrugated board production sites, we also enter into swap agreements with other containerboard producers from time to time. By maintaining a high share of internally sourced containerboard, we can ensure a consistently high quality of the containerboard we use, which has a positive impact on the operational performance of the equipment we use in our corrugated board production processes. In addition, our own containerboard production capabilities at Propapier allow us to cater to the specific needs of our corrugated board production at Prowell.

Energy

The production of containerboard is very energy intensive. The operation of our two paper mills accounted for 92% of the total energy consumption of all our production sites (i.e. not including energy consumption of our headquarters in Landau) in 2017, and the operation of our (at that time) nine corrugated board productions sites together with our CHP accounted for the remainder. Electricity and steam are the primary forms of energy required for our production operations.

Notwithstanding increases in production volumes, our energy costs have declined in recent years for a variety of reasons, including (i) our efforts to reduce energy consumption, in particular with regard to PM2, (ii) falling energy prices, (iii) the optimization of our energy procurement processes, (iv) the optimization of the operating costs of the CHP, in particular with regard to ash disposal, as well as (v) the full utilization of all available accommodations, credits and refunds under applicable energy laws and regulations. For more information about our energy management efforts, see "*—Sustainability Focus; Research and Development*".

In addition, the CHP ensures a reliable, long-term supply of steam to PM2. As a back-up solution for the supply of steam in case of a maintenance or other shutdown of the CHP, a nearby power plant in Eisenhüttenstadt can also supply steam

to the PM2. The CHP Acquisition was a significant further step in our efforts to optimize our cost structure as significantly reduced our energy costs as a result of the CHP Acquisition. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting Our Results of Operations—The CHP Acquisition*". Other energy supply agreements we enter into typically have a maximum term of one year. For larger energy procurement quantities, we may make use of tranche models to contract for annual volumes at different times, for different tranches and prices of our total energy requirements and for different periods. This allows us to maintain a maximum amount of flexibility to respond to changing market conditions.

Freight/Logistics

At each step of our internal value chain and production processes, we coordinate and monitor complex logistics processes to ensure the efficient flow of materials and products. This includes the shipment of large rolls of containerboard from our two paper mills in Germany to our ten corrugated board production sites in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom as well as the shipment of our finished corrugated board to our customers in the packaging industry (box plants).

We meet our freight and logistics requirements mainly through the use of external logistics companies and, to a much lesser extent, our own fleet of currently 59 trucks. Due to the relatively large size and weight of our products compared to value, freight and logistics expenses play an important role in the profitability of our business. The selection and commissioning of our external logistics partners is centrally organized by our logistics department in Landau, supported by our logistics specialists at Prologistik in Burg. With the exception of the holiday seasons, e.g., before Christmas, when there is a high demand for logistics services, in our experience, the market for logistics services has been characterized by overcapacity in recent years, allowing us to choose from a variety of logistics providers at competitive prices.

The support of our own team of logistics specialists at Prologistik also provides us with real-time insight into the latest developments in the market for transportation services, which allows us to strategically employ the use of our own fleet of trucks. In addition, our own fleet gives us the ability to cover temporary capacity constraints in the market. Other targeted optimization measures which have resulted in a reduction of related transportation costs include (i) the development of specialized transport cradles for our containerboard rolls, which allow for a more efficient use of the cargo hold of each truck, (ii) the hiring of trucks with cargo holds best suited for our transportation needs, (iii) improved journey planning and (iv) better coordination of loading and offloading times.

SALES AND MARKETING

Our sales team is tasked with achieving the sales, margin and volume targets defined by our management. A central element of our sales efforts is the provision of strong customer support for our existing customer base and the establishment and maintenance of strong relationships with purchasing managers and other key decision makers within our customers' organizations. Other key elements of our sales efforts involve winning new customers, especially in new markets, and the introduction of new products.

To ensure we meet the targets defined by our management, we have implemented a sales management system within our sales organization that is designed to monitor our performance against our volume targets. In addition, we have implemented a centralized pricing system to ensure a proper framework for achieving our sales and margin targets.

Our marketing team supports our sales team and provides it with market-focused concepts and a full set of marketing tools. In addition to supporting the Group-wide targets defined by our management, our marketing efforts are also aimed at further strengthening our product brands (e.g., propapier, prowell, prologistik, next fibre®, next board® and next box®) and maximizing their value.

A key condition for a consistent brand image is the presentation of a clear and consistent external appearance, which we try to ensure through a full package of coordinated marketing tools and marketing activities. We believe this also benefits our packaging customers, as it can help support their own product marketing with their end-customers.

In 2017, our sales and marketing teams employed an average of 40 full-time employees (38 in 2016).

INFORMATION TECHNOLOGY AND PROCESS MANAGEMENT

As described above, we principally generate revenue through the sale of containerboard and corrugated board. Our mills primarily sell the containerboard we produce to Group-owned converting operations and we sell our corrugated board to our third-party customers in the packaging industry. The operation of our production plants as well as our sales and service activities depend on the efficient and uninterrupted operation of complex and sophisticated computer, telecommunication and data processing systems.

Our value chain starts with recycled paper, which is the primary raw material in the production of containerboard. In managing our supply of raw materials, we need to constantly monitor our internal needs for containerboard, which we primarily meet through our own mills in Burg and Eisenhüttenstadt as well as, to a much more limited extent, third party containerboard producers.

Between each of the further steps along the value chain and our production process, we need to coordinate and monitor complex logistics processes to ensure the efficient flow of materials and products. This includes the shipment of large rolls of containerboard from our mills to our corrugated board plants at ten other locations in the Czech Republic, France, Germany, Italy, Poland and the United Kingdom as well as the shipment of our finished corrugated board to our customers in the packaging industry (box plants).

Our corrugated board plants process up to approximately 4,000 individual customer orders for corrugated board each day with a total volume of approximately 8.5 million square meters. At each plant, we prepare and load up to 90 truckloads of corrugated board every day.

Our IT infrastructure needs to be able to support all these processes, including by helping us to optimize:

- our use of raw materials (raw material management);
- our production planning and production control (minimization of cutting scrap);
- our warehouse management for both raw materials and finished products; as well as
- the coordination of loading and offloading times.

In 2017, approximately 69% of purchase orders for corrugated board from our Prowell customers were received electronically (64% in 2016), and all material core processes, which need to be coordinated and timed efficiently to ensure the smooth and efficient operation of our production processes, are being controlled by our central WEPAFORM-server and by local WEPAFORM servers at each plant.

WEPAFORM is our proprietary core ERP system we use across the Group and which implements our internal know-how in the form of best practices and rules of conduct. The functionality of WEPAFORM covers all our core processes, including order processing, raw materials planning, production planning, production control as well as warehousing, shipment and invoicing. WEPAFORM implements both the rules of conduct of our individual departments as well as those rules of conduct that apply Group-wide, which ensures the implementation of our Group-wide business strategies.

For example, in response to a requested delivery date in a customer purchase order, we try to automate, as much as possible, the confirmation of the actual delivery date for products covered by the relevant order. This actual delivery date will be determined based on a combination of factors, such as optimal route planning (including with regard to offloading times and punctuality) as well as optimal production planning (*i.e.*, feasibility and minimization of cutting scrap). This determination, in turn, will take account of all other pending orders at the time as well as the availability of freight options. All these complex determinations are controlled and automated through WEPAFORM.

While all our core processes are covered by our proprietary WEPAFORM system and we use e-box for electronic communications with our Prowell customers, we also use a number of additional software applications to support other business processes, including standard non-proprietary applications for accounting (SAP), payroll processing (LOGA) and equipment maintenance (MAXIMO) and transport management for Prologistik (Carlo)

To support the various software applications we use within the Group, including WEPAFORM, we operate our own data centers. Our main data center is located in Offenbach a.d. Queich, Germany, and is connected to our headquarters in Landau, Germany, with a dedicated line. All our German sites are connected via leased MPLS lines to our main data center, while our foreign production sites are connected to our main data center via VPN over the Internet. At our site in Burg, Germany, we operate a local area network (LAN) which connects our local containerboard (Prowell), corrugated board (Propapier) and logistics operations (Prologistik) and which, in turn, is connected to our main data center via leased MPLS lines. To reduce the risk of a disruption of individual Internet connections between our various facilities and our main data center, we maintain alternative back-up Internet routes for each facility. To host our software applications, we use ESX-Server farm based on NETAPP Storage systems. Relevant software applications are made available remotely to all users with the Progroup network via CITRIX XenApp.

In 2017, our IT department employed an average of 16 employees (15 in 2016), including management positions, team leaders, administrative assistants and software developers. In addition, we worked with three external IT consultants and, with regard to the non-proprietary applications we use, cooperated with the relevant software developers and their

partners. Given the strong reliance of our business on information technology, the success of our business depends on our continuing ability to attract and retain qualified IT personnel in the long-term, which has been challenging in the past given an increasing shortage of qualified personnel, especially in Germany.

SUSTAINABILITY FOCUS; RESEARCH AND DEVELOPMENT

Promoting the sustainability of our core businesses, *i.e.*, the production of containerboard and corrugated board, has been a key priority for our Group, not only from an environmental perspective, but also as a matter of pure economic necessity. Containerboard cannot generally be differentiated by producer, and this standardization has led to intensified price competition within our industry. In addition, our operating results are significantly impacted by the containerboard and corrugated board industry's historical cyclical pattern, with periods of overcapacity and resulting pressure on the pricing of our products. These pressures can be further exacerbated by significant volatility in our key input costs, in particular the cost of recycled paper, energy costs and freight costs.

As a result, we are forced to continuously improve our product designs, optimize the utilization of our assets and explore new ways to further reduce our input costs. In practice, this means that we are undertaking significant and ongoing efforts to further reduce the use of fibre (*i.e.*, recycled paper) in our products as well as the amount of energy required for our production processes and the shipment of our products, which helps us both to maintain a cost leadership position within our industry (with the goal of safeguarding our profit margins) and to help the environment by reducing our CO_2 footprint.

As a result of the factors described above, we believe there are general "mega trends" towards lighter and more functional packaging and towards a more efficient use of resources. The trend towards "light paper" (*i.e.*, containerboard) has been particularly strong in Germany and has been further strengthened by high growth rates in e-commerce, which have led to an increase in demand for light and safe packaging solutions.

We believe that we are particularly well-positioned to capitalize on these trends with our paper mill in Eisenhüttenstadt, Germany (PM2), which specializes in the production of super-light-weight to medium-weight containerboard with grammages of 60-130g/m^2. With regard to the production of super-light-weight containerboard (with a grammage below 90g/m^2), which is currently particularly sought-after in the market, we believe that our paper machine PM2 gives us a significant advantage over many of our competitors, both in terms of efficiency and product quality. Based on a study by Vision Hunters, we believe PM2 is among the world's most advanced paper machine for recycled super-light-weight paper and has set five new world records since its launch in 2010. Our subsidiary Propapier PM2 GmbH, which operates our paper mill in Eisenhüttenstadt, is certified under the Eco-Management and Audit Scheme ("**EMAS**"), a voluntary scheme set up by the European Union that is designed to help companies to continuously improve their environmental performance. The EMAS certification of Propapier PM2 GmbH also carries several advantages for our business. Among other advantages, it (i) results in simplified reporting obligations under the German Federal Emission Law (*Bundes-Immissionsschutzgesetz*, "**BImSchG**"), (ii) allows us to take advantage of certain accommodations and credits under the German Renewable Energy Law (*Erneuerbare-Energien-Gesetz*, "**EEG**") and the German Co-Generation Law (*Kraft-Wärme-Kopplungsgesetz*, "**KWKG**"), (iii) serves as the basis for certain energy tax refunds in Germany, (iv) allows us to take advantage of certain fee discounts in connection with certain regulatory approval processes in Germany, and (v) generally improves our corporate image as an "eco-friendly" company. The current EMAS certification for our mill in Eisenhüttenstadt and Propower is valid until July 4, 2020 and June 4, 2020, respectively .

To support the EMAS certification of Propapier PM2 GmbH as well as other environmental certifications and to generally improve our energy management, we have implemented energy management systems ("**EnMS**") at our two paper mills in Eisenhüttenstadt and Burg, the operation of which is particularly energy intensive, as well as at our corrugated board production sites in Burg, Germany (PW3), Schüttorf, Germany (PW5), Offenbach a.d. Queich, Germany (PW6) and Plössberg, Germany (PW9). We also currently plan to implement EnMS at our production sites in Douvrin, France (PW2), Rokycany, Czech Republic (PW4), Strykow, Poland (PW7), Ellesmere Port, United Kingdom (PW8) as well as at our sites in Trzcinica, Poland (PW10) and Drizzona, Italy (PW11). In addition to the advantages described above, the implementation of EnMS at our various sites also has the following benefits for our business: (i) it helps us monitor compliance with applicable environmental regulations, (ii) increases the transparency of our internal production processes, (iii) enables a clear allocation of internal responsibilities and tasks, (iv) serves as the basis for potential efficiency improvements by helping us identify potential cost savings, and (v) reduces the risk of potential environmental liability. The containerboard produced by both our two paper mills is also certified by the Forest Stewardship Council (FSC).

In addition, we spent significant time, expense and effort developing a "green" range of "next generation" products working in a close cooperation with BHS Corrugated GmbH, one of our equipment suppliers, and a team of researchers at the University of Applied Sciences (*Hochschule für angewandte Wissenschaften*) in Regensburg, Germany, over a period of several years. We market the resulting products under our own brands next fibre®, next board® and next box®.

All these product innovations involve the use of the super-light-weight containerboard produced by our paper machine PM2 as well as innovative flute designs/corrugated board formats.

Next fibre® is the brand under which we market a new generation of super-light-weight containerboard produced by our paper machine PM2. Our goal in developing this new generation of containerboard was to minimize the amount of fibre and energy used in its production, while at the same time maximizing its performance. The result of our efforts is a much lighter containerboard with consistently high paper homogeneity and a much optimized production process in terms of energy consumption, repulping and moisture monitoring. In addition, TÜV Rheinland, an independent German standards organization, certified significant reductions in the CO_2 footprint for our next fibre® containerboard, specifically a 52% reduction in CO_2 emissions per ton of paper produced compared to conventional containerboard. In addition, next fibre® containerboard features significantly more roll weight running meters per containerboard roll during transport as a result of the reduced weight, resulting in further reductions in CO_2 emissions by 11% and 24% for grammages of $90g/m^2$ and $80g/m^2$, respectively.

Next board® is the brand under which we market our new generation of corrugated board products produced with our next fibre® containerboard. Due to a combination of the use of the lighter containerboard and innovative and improved flute designs and general board architecture, this range of corrugated boards is not only lighter than conventional corrugated board, but also offers our customers better performance characteristics, a better surface and printability, lower logistics costs and a better life-cycle assessment. The improvements due to the new board designs include edge crush resistance (ECT) values which are up to 15% higher compared to conventional corrugated board with the same weight/raw material content. Next board® products also feature an average reduction in CO_2 emissions per ton of corrugated board of 15% compared to conventional corrugated board, as certified by TÜV Rheinland, a 5% reduction in CO_2 emissions during transport and a 16% increase in the loadable corrugated board surface area, meaning that approximately one in every seven truck journey can potentially be avoided.

Next box® is a label we make available to our packaging customers they can use for eco-friendly and sustainable packaging produced with our next board® corrugated board products. Next board® corrugated board allows for more exact processing compared to comparable conventional corrugated board, as well as more reliable machinability and higher running rates. Next box® packaging features a smooth look without any ripple effect and permits optimal printing results due to our improved corrugated board designs. In addition, next box® products allow for more efficient storage and reduce transportation costs due to the reduced raw material content. We believe that sustainability and eco-friendliness are of increasing importance to our customers, especially in Germany. To allow our customers in the packaging industry as well as their end-users to highlight their own commitment to sustainability, we therefore make our next box®—reduced CO_2 label available to them, which can be stamped on all next box® packaging.

EMPLOYEES

In 2017 we employed an average of 1,040 employees (excluding trainees) in six countries (978 for the year ended December 31, 2016). Approximately 72% of our employees are employed at our headquarters in Landau, Germany, and at our six production sites in Germany. As of December 31, 2017, we had 321 employees outside of Germany, including 44 employees in France, 62 employees in the Czech Republic, 117 employees in Poland, 66 employees in the United Kingdom and 32 in Italy.

Our workforce is characterized by low fluctuation levels, and the average job tenure of our employees across all our sites is seven years. As a result of our continuous hiring strategy and long-standing training programs, we believe our workforce currently has a well-balanced age structure. As of December 31, 2017, we had 34 trainees.

With the exception of our employees in France and at Propower, our workforce is not subject to any collective bargaining agreements and there are no works councils. In accordance with the French Works Constitution Act, a works council represents our employees at our corrugated board production site in Douvrin, France. At Propower our employees are also represented by a works council.

INSURANCE

We maintain various insurance policies for different aspects of our business. These policies are centrally managed by our legal and insurance department in Landau, with the support of our insurance broker S&P Schulz & Partner GmbH, Mannheim. Our insurance coverage includes all-risk policies insuring against property destruction, damage and loss, as well as against any business interruption directly resulting from any property damage. In addition, we maintain liability insurance coverage with regard to general operating liability, radiation liability and environmental liability, as well as transport and accident insurance. We obtain insurance coverage for particular risks based on an internal risk analysis. We believe that we maintain adequate insurance coverage commensurate with our business and production volumes and in line with industry practice, with deductibles and coverage limits that we believe to be reasonable and appropriate. We

continuously re-evaluate the appropriateness of our insurance coverage in the ordinary course. There can be no assurance, however, that we will not suffer losses that may either not be covered by insurance or that may exceed the coverage amount under the relevant insurance policies.

REGULATORY ENVIRONMENT

Our business, and in particular the operation of our production sites, is subject to various regulatory requirements. Applicable laws and regulations may differ from site to site due to different national and local laws. The regulatory requirements relate in particular to our production processes and include, *inter alia*, laws and regulations relating to health and safety measures for employees, the technical safety requirements for operating machines, the use and handling of chemicals, air and water emissions, soil contamination and the management and disposal of waste, hazardous and toxic substances and other materials. For our sites and operations, we are required to obtain and hold various permits and to comply with the requirements specified therein. We are further subject to foreign trade laws and may be required to pay export duties or customs duties on materials and products that we export and import. We are subject to further regulations in the various jurisdictions in which we operate, including antitrust laws and zoning and occupancy laws that generally apply to manufacturing businesses and/or govern the promotion and sale of the products we offer, the operation of our facilities and our relationships with customers, suppliers and competitors. The following is an overview of the main laws and regulations that are relevant to our activities in Germany. Local laws and regulations that deal with similar aspects apply in other jurisdictions in which we operate production sites or sell our products.

Environmental Laws

We are required to comply with various environmental laws and regulations. In particular, our operations are subject to laws and regulations designed to limit emissions. In Germany, the construction and operation of our paper mills requires active permits under the Federal Emissions Protection Act (*Bundes-Immissionsschutzgesetz*, "**BImSchG**"), which encompasses various approvals necessary for the construction and operation of facilities pursuant to other laws, including public-law approvals, registrations and consents. The operation of the relevant facility can generally not be challenged or contested by third parties as long as the respective facility operates in compliance with its permit. In such cases, third parties can only require certain measures to mitigate any negative impact of a facility on the environment. To the extent such measures are impossible or uneconomical to implement based on state-of-the-art technology, the relevant third parties may only claim damages. Permits and additional administrative orders under the Federal Emissions Protection Act may impose certain limitations (e.g., stricter requirements with regard to permissible emissions or the use of the relevant facilities), with which we have to comply. To the extent new legal standards are introduced, permits will not be grandfathered but adjusted so they meet the relevant new standards. A violation of the operator's duties as determined in the respective permit (or an additional administrative order) or a modification of the relevant legal standards may also lead to a restriction or, in severe cases, a prohibition of the further operation of the facility and/or the revocation of its permit under certain circumstances. The competent authority may also impose administrative fines or even ask for removal of the facility.

Moreover, the operation of our two paper mills is subject to the various duties of the Federal Water Management Act (*Wasserhaushaltsgesetz*, "**WHG**"), the State Water Acts in each of the German states (*Landeswassergesetze*) and the respective federal and/or state ordinances (*Rechtsverordnungen*). These regulations govern our use of water during production. According to the Federal Water Management Act, as well as the corresponding State (*Länder*) laws, the use of water generally requires the approval by the competent authority. In particular, the extraction of above-ground water, the discharge of waste water and the pouring and discharge of materials are all aspects of our containerboard production that require regulatory approval. In cases of violations of the relevant provisions, we may be required to pay damages or become subject to penalties. Depending on the type of permit, it may be limited in time and it may either be revoked any time or only under certain circumstances.

The CHP in Eisenhüttenstadt (Propower) also requires various regulatory approvals for its operation, particularly under the BImSchG and the 17th Ordinance to the BImSchG on the incineration and co-incineration of waste. Furthermore, operations have to comply with the applicable greenhouse gas emissions caps. See "*—Regulation governing the Operation of the CHP—Environmental laws and other related laws and regulations*" and "*—Regulation governing the Operation of the CHP—Carbon Emission compliance*" below.

Both our paper mills are subject to the German Radiation Protection Ordinance (*Strahlenschutzverordnung*, "**StrlSchV**") due to the fact that our paper machines include various measuring devices (e.g., for measuring paper basis weights, paper moisture and/or paper ash) that rely on the use of a number of slightly radioactive isotopes (*i.e.*, Cobalt-60, Krypton-85, Cesium-137 and/or Iron-55). The use of these materials and devices is common in the paper industry as well as in other industries. They are applied in enclosed form, *i.e.*, isotopes are enclosed by a protective cover to avoid any release of radiation. When the isotopes are not in use, they are further shielded with steel plates. According to Sec. 7 of the Radiation Protection Ordinance, the handling of the relevant radioactive isotopes requires permits, which we have

obtained. Even if these permits would be revoked, however, we would be able to switch to using different measuring devices based on different technologies. We also maintain insurance coverage for liability resulting from radiation.

Waste Legislation and Regulations

The use of waste (as a substitute fuel within Propower's CHP) is subject to European and German waste legislation. Among others, the German Act on the Federal Waste Management Act (*Kreislaufwirtschaftsgesetz*, "**KrWG**") and corresponding regulation, such as the Packaging Ordinance (*Verpackungsverordnung*, "**VerpackVO**") and the List of Wastes Ordinance (*Abfallverzeichnisverordnung*, "**AVV**"), stipulate certain standards and requirements. From January 1, 2019, the VerpackVO will be replaced by the Packaging Act (*Verpackungsgesetz*, "**VerpackG**"), which strengthens the obligation of distributors (*Inverkehrbringer*) of sales packages (*Verkaufsverpackungen*). Apart from that, the use of waste containing Hexabromcyclododecan ("**HBCD**"), which is, *inter alia*, contained in insulation boards that in the past have been used as a substitute fuel within the CHP, was subject to usage restrictions and additional documentation requirements under the Regulation (EC) No. 850/2004 on persistent organic pollutants ("**POP Regulation**"). Propower hold meetings with its suppliers to resolve potential issues in this respect.

Chemicals Legislation and Regulations

We use a number of chemicals in our production processes and are therefore subject to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals ("**REACH**"). The aim of REACH is to improve the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances. REACH places greater responsibility on industry participants to manage the risks from chemicals and to provide safety information on the substances. As a "downstream user" pursuant to REACH, we are primarily required to adhere to the recommended risk reduction measures, to forward our customers and suppliers the relevant information and, if necessary, to arrange for a chemical safety report to be prepared.

In addition, we are subject to the provisions of the German Chemicals Act (*Gesetz zum Schutz vor gefährlichen Stoffen—Chemikaliengesetz*, "**ChemG**") and related ordinances (*Rechtsverordnungen*). The Chemicals Act is intended to minimize the risks from chemicals for humans and the environment. Based on the Chemicals Act and related regulations, the competent authorities have the power to—among others—require that certain materials or chemicals (i) may either not be produced, marketed or used at all, (ii) may only be produced, marketed or used in a certain manner or for specific purposes, (iii) may only be used under certain circumstances or (iv) may only be distributed to certain persons. We are not aware of any such orders having been issued by the German government authorities that would have an impact on our business.

Soil Contamination

Pursuant to the German Federal Soil Protection Act *(Bundes-Bodenschutzgesetz,* "**BBodSchG**"*)*, the responsibility for residual pollution and harmful changes to the soil lies with the party who caused a harmful soil change or a contaminated site, its universal successor, the relevant property owner, the occupant of the relevant real property and, if the title was transferred after March 1, 1999, the previous owner of the property, if they knew or must have known about the contamination. There is no general statutory ranking as to which of the aforementioned parties is primarily liable. Rather, this decision is made at the discretion of the relevant local authority who will take into account the effectiveness of remediation as a prevailing factor. Thus, the current owner of the contaminated property is usually the first party to be held responsible because the owner is generally in the best position to undertake the necessary remediation work. However, the other responsible parties are required to indemnify the party that carried out the remediation work, regardless of which party is held liable by the relevant local authority. Where no other arrangements are agreed upon, the obligation to provide compensation and the extent of the compensation to be provided depend on the extent to which the hazard or damage was caused primarily by one party or the other. Liability is not based on fault. Thus, the BBodSchG does not require the relevant local authority to prove negligence or intent on the part of the liable parties.

According to the BBodSchG the competent authority may require risk inspections, investigations, remedial measures and other measures necessary for the prevention of residual pollution or harmful changes in the soil.

Regulation governing the Operation of the CHP

General overview

As a result of the CHP Acquisition , we are subject to a wide range of laws and regulations specifically governing the German energy sector.

The key legislation containing the core provisions of German energy law is the Energy Industry Act (*Gesetz über die Elektrizitäts- und Gasversorgung—Energiewirtschaftsgesetz,* "**EnWG**").

Other laws and ordinances specifically relevant to the energy sector and the CHP include:

(i) the Co-Generation Act (*Kraft-Wärme-Kopplungsgesetz,* "**KWKG**");

(ii) the Ordinance on Tariffs for Electricity Grid Access (*Stromnetzentgeltverordnung,* "**StromNEV**");

(iii) the Ordinance on Incentive Regulation (*Anreizregulierungsverordnung,* "**ARegV**");

(iv) the Federal Emission Protection Act (*Bundes-Immissionsschutzgesetz,* "**BImSchG**");

(v) the Green House Gas Permission Trading Act (*Treibhausgas-Emissionshandelsgesetz,* "**TEHG**");

(vi) the Energy Tax Act/Electricity Tax Act (*Energiesteuergesetz/Stromsteuergesetz,* "**EnergieStG**"/"**StromStG**");

(vii) the Energy Services Act (*Energiedienstleistungsgesetz,* "**EDL-G**") and

(viii) the Electricity Grid Access Ordinance *(Stromnetzzugangsverordnung,* "**StromNZV**"*).*

Energy Industry Act (EnWG) and related regulation

The EnWG provides, inter alia, the legal framework for ensuring competition within the German energy markets, mainly by regulating electricity and gas networks to ensure reliable and efficient supply networks. It also implements relevant EU law in relation to energy supply. Companies that supply third parties with energy or own or operate transmission and distribution networks have to ensure that electricity is supplied in accordance with these aims.

Grid access and network tariffs

As grid operators enjoy a natural monopoly, electricity grid operators are obligated to provide connection to and use of electricity grids without discrimination and in a transparent manner.

Electricity grid operators are required to connect third parties, such as generation facilities (including the CHP), to the grid. The conditions for a connection must be non-discriminatory, proportionate, transparent and not less favorable than the conditions granted to a grid operator's own, affiliated or associated undertakings. A grid operator may refuse the connection if it is, for operational or other economic or technical reasons, impossible or unreasonable. The burden of proving that a connection is economically or technically impossible or unreasonable lies with the grid operator.

Tariffs for grid access are determined by the grid operators in accordance with incentive regulation based on the ARegV and the StromNEV. Under these regulations, revenue caps are set by the regulatory authority for each grid operator for a regulatory period of up to five years based on the cost base of the business three years prior to the start of the regulatory period. The revenue cap displays the average total costs of the grid use in consideration of permanent non influenceable costs (e.g. tax, duties), temporary non influenceable costs, and influenceable costs (also referred to as "inefficiencies"). Besides potential profit from cost reductions, the grid operators can gain a reasonable interest from the used capital. The provisions of the StromNEV and the Ordinance on Tariffs for Gas Grid Access (*Gasentgeltverordnung*) define how to assess the level of the equity interest rate (*Eigenkapitalverzinsung*) before each regulation period. The equity interest rates are set by the German Federal Network Agency (*Bundesnetzagentur,* "**BNetzA**"). For the upcoming third regulation periods for gas (2018 to 2022) and for electricity (2019 to 2023), the BNetzA has significantly reduced the equity interest rates. These amendments have lead to significant controversies within the energy industry and appeals have been filed at the competent Higher Regional Court of Düsseldorf (*Oberlandesgericht Düsseldorf,* "**OLG Düsseldorf**") by distribution and transmission system operating companies that are or will be affected by the decrease of the equity interest rate. The outcome of the legal proceedings is currently unclear.

Grid operators' rights in case of congestion and emergency

Pursuant to the EnWG, electricity grid operators are obliged to ensure the security and reliability of the grid. Therefore, they are entitled and required to take the necessary actions to avoid any risks to the security or reliability of the grid. If the security or reliability of the grid is endangered or disturbed, grid operators are required and authorized to rectify the

problem by making use of (i) grid-related measures, which entail technical measures that do not involve the network users, such as internal energy balancing or pressure adjustment; and/or (ii) market-related measures which involve certain network users. Market-related measures are based on contractual agreements between the grid operator and certain users relating to the feed in and off-take of energy which allow energy balancing and making use of interruptible capacities (capacity bookings which are not firm and, therefore, may be interrupted). If the grid operator cannot eliminate the disturbance by making use of any of these measures, the operator is entitled to adjust and/or reduce feed-ins, electricity transits and electricity off-takes without any obligation to pay compensation. In principle, feed-ins from conventional generation must be reduced before feed-ins from co-generation facilities (such as the CHP) or renewable energy facilities. However, if the grid operator has unreasonably rejected proposals by generation installation operators to conclude agreements on interruptible capacities, compensation must be paid by the grid operator. Furthermore, compensation must be paid to co-generation and renewable energy installations in case of a reduction of feed-ins if disturbances are caused due to grid congestion.

Recent Amendments of the EnWG and related developments

In 2016, the EnWG was amended by the Electricity Market Act (*Strommarktgesetz*), inter alia, to strengthen the principle of free pricing in the electricity markets, to establish the basis for further reporting requirements for market participants (including power plant operators) under a central electronic directory of energy-related data (the so-called *Marktstammdatenregister* ("**MaStR**")), and to implement certain safety measures regarding capacity reserves (namely the so-called "*Kraftwerksreserve*", "*Netzreserve*" and the "*Braunkohlereserve*") to ensure the availability of sufficient power capacity. In adopting the amendments, the German legislator essentially affirmed the existing market model (*Energy-only-Market*, "**EOM**"), rejecting calls to implement a wide capacity market in response to recent turbulences for conventional (co-generation) power plant operators caused by the increases in renewable energy generation and the significant drop in prices in the electricity wholesale markets. Based on Sections 111e and 111f of the EnWG, the regulation on the *MaStR* (*Marktstammdatenregisterverordnung*, "**MaStRV**") entered into force on July 1, 2017. All actors in the electricity and gas market must register in the directory (*Marktstammdatenregister*, "**MaSTR**") for all stationary technical facilities that generate, store or consume electricity or gas. The MaStR creates a comprehensive regulatory register for the electricity and gas market that can be used by public authorities and market actors in the energy sectors. The recourse to the master data of the MaStR represents a significant increase in data quality and data simplification for many energy industry processes. Many regulatory reporting requirements can be standardized, simplified or completely abolished by centralized registration. The MaStR is still under construction. Electricity and gas network operators can only currently register their company in the MaStR web portal. The use of the MaStR will be possible only from summer 2018 onwards for all other market players. All market players are obliged to register or to verify the existing data entries by June 30, 2019.

To further support the functioning of electricity markets, the German Renewable Energies Act (*Erneuerbare-Energien-Gesetz*, "**EEG**") has also been revised. The most significant amendments include the definition of expansion targets and the progressive transition to a comprehensive tendering system for all renewable energy technologies. The EEG provides for certain exemptions from the energy surcharge for energy-intensive industries. In 2016, the EEG was amended, lowering the required electricity cost intensity for such exemptions from 17% to 14% as of 2017 for the manufacture of paper and containerboard. The exemptions in the EEG have to comply with the European environmental energy state aid guidelines which are valid until 2020 in the current version. Furthermore, the German provisions have to meet the requirements established by the Directive 2009/28/EC on the promotion of the use of energy from renewable sources (Renewable Energy Directive). Further amendments of the EEG 2016 came into force on January 1, 2017 ("**EEG 2017**"). The EEG 2017 contains two essential innovations. The remuneration of renewable electricity will primarily be regulated by tenders in future, i.e. the amount of subsidy will be determined by the market and no longer by fixed feed-in remuneration. That ensures the continuous expansion of renewable energies and can reduce the costs of funding provided there is enough competition. Furthermore, the expansion of renewable energies is synchronized with grid expansion. For each technology, certain expansion paths have been set in accordance to the available network capacities. In addition, the expansion of wind power on land in areas with network bottlenecks (*Netzengpassgebiete*) was limited.

On November 30, 2016, the European Commission published a proposal for a revised Renewable Energy Directive (COM(2016) 767 final) to make the EU a global leader in renewable energy and ensure that a target of at least 27% renewables in the gross final energy consumption in the EU by 2030 is met. On January 17, 2018 the European Parliament adopted various amendments to the European Commission's proposal, in particular, to achieve an even more ambitious target of 35% renewables in the Union's energy consumption by 2030. It is planned that the recast of the Renewable Energy Directive will enter into force on January 1, 2021.

Parallel to the amendments of the EnWG and the EEG, the foundation was laid for the digital transformation of the energy system. With the Act on the Digitization of the Energiewende (*Gesetz zur Digitalisierung der Energiewende*—"**GDEW**"), the Metering Point Operation Act (*Messstellenbetriebsgesetz*—"**MSbG**") has been enacted, which contains provisions on the progressive roll-out of intelligent metering systems.

In the context of these recent reforms it is noteworthy for conventional (co-generation) power plant operators, that the BNetzA and the European Regulation Authority (Agency for the Cooperation of the Energy Regulators—"**ACER**") paved the way for a split of the common German-Austrian pricing zone from October 2018 by ordering grid operators to establish a congestion management at the German-Austrian border. This is due to the technical difficulties and the exploding costs regarding renewable energy that is being produced in the northern regions of Germany and transported to the high-consumption centers in the southern regions of Germany. If the common German-Austrian pricing are ultimately split, this may result in higher wholesale electricity prices in the South of Germany.

Network Fees Modernization Act (NEMoG)

On July 22, 2017, the Act on the Modernization of the Grid Tariff Structure (*Netzentgeltmodernisierungsgesetz*, "**NEMoG**") slightly amended the EnWG, the EEG and the StromNEV to align grid tariffs with the "*Energiewende*". The NEMoG contains two important aspects: The gradual standardization of transmission network charges and the abolishment of the privilege of the so-called "avoided grid tariffs" (*vermiedene Netzentgelte*).

The transmission grid tariffs will gradually adjust nationwide. For implementation, the NEMoG contains an authorization for the enactment of a regulation by the German Federal Government (*Bundesregierung*) with consent of the German Federal Council (*Bundesrat*). The standardization of transmission grid tariffs will be effected in five steps starting from January 1, 2019. From January 1, 2023, the charges for the transmission grids will be uniform throughout Germany. The costs of the transmission grids currently amount to approx. 25% of the total costs of electricity grids.

Furthermore, Section 120 EnWG stipulates the gradual reduction of "avoided grid tariffs", the calculation bases of which will be frozen to the level of 2016 starting from 2018. Regarding the gradual reduction, a distinction is made between volatile (sun and wind) plants (*Anlagen mit volatiler Erzeugung*) and controllable generation plants (e.g. CHP). The "avoided grid tariffs" for new volatile plants will be completely abolished from 2018 and for existing volatile plants it will be eliminated in three stages from 2018, i.e. that by 2020, volatile plants will no longer be eligible for "avoided grid tariffs" at all. Regarding controllable plants, "avoided grid tariffs" will not be granted to plants, which start their operation after December 31, 2022.

Co-Generation Act (KWKG)

In the interests of energy conservation, environmental protection and achieving the climate protection targets of the German Federal Government, the KWKG aims to increase the share of electricity generated through more environmentally-friendly co-generation facilities, such as the CHP, to 25% of the overall power generation in Germany by 2020.

Grid access and off-take

Grid operators are required to give priority grid access to certain co-generation plant operators, including Propower as operator of the CHP, with the same priority as that granted to renewable energies and to off-take, transmit and distribute their co-generation electricity on a priority basis. Grid operators are required to off-take the electricity at (i) a price either mutually agreed or determined according to the "standard market price" (if no agreement is reached) *plus* (ii) a certain fixed surcharge and a payment for decentralized feed-in. See "*—Off-take pricing*" below.

Notwithstanding the obligation to purchase, transmit and distribute electricity from co-generation plants and producers of renewable energy, a grid operator is required to ensure the technical stability of the grid and, for this purpose, is entitled to avoid an overload of the grid by managing the feed-in of electricity from all parties feeding electricity into its grid (feed-in/grid congestion management). If after exhausting certain grid-related and market-related measures, the grid operator has not successfully reduced the overload in the grid and congestion remains, it is entitled to reduce the electricity which can be fed into the grid. Within this mandatory reduction, the grid operator is required to treat the electricity from certain co-generation sources (including the CHP), from renewable energy sources (such as wind farms or solar energy) and from mine gas preferentially. The grid operator is required to implement congestion management by which, in principle, feed-in from installations using conventional energy resources (gas, coal, nuclear fuel) must be reduced first. The political parties forming the current German Federal Government have indicated in their coalition agreement that they intend to amend the legal framework for congestion management (including the rules for compensation, if any, to be paid) while maintaining the general concept of priority access for electricity from renewable sources, as well as from co-generation.

In December 2016, the European Commission published the so-called Winter Package, which includes numerous proposals on legislative acts for energy efficiency and the energy markets. Among other proposal, the package includes a proposal to cancel the priority feed-in for co-generation and renewable energy plants with a capacity of more than 250 kilowatt, which start operating after the implementation of the legislative acts.

Off-take pricing

The grid operator has an obligation to off-take the electricity produced at co-generation plants within the meaning of the KWKG, such as the CHP, at a price mutually agreed between the grid operator and the operator of the co-generation plant plus a surcharge. See "*—Surcharge*" below. In addition to the surcharge, the grid operator is required to pay so-called "avoided grid fees" due to the decentralized feed-in by the co-generation plant ("*Entgelt für dezentrale Einspeisung*", Section 18 para 1 StromNEV). If no agreement is reached regarding the electricity price, the grid operator has to off-take the electricity at the "standard market price". The "standard market price" for electricity produced by installations depends on their capacity. For installations with a capacity of up to 2 MWe the average price of base-load electricity is determined by the European Energy Exchange (EEX) during the previous quarter of the year or installations with a capacity of more than 2 MWe—like the CHP—the "standard market price" (depends on the circumstances in the individual case, especially the plant's mode of operation and the predictability of electricity production).

If the co-generation plant operator demonstrates that a third party would be willing to pay a certain price for the electricity produced at the co-generation plant, the grid operator is obligated to purchase the electricity from the co-generation plant operator at this price. In turn, the third party is obliged to purchase the electricity at the price quoted from the grid operator. Thus, the sale of electricity to a third party is carried out through the grid operator as intermediary. The purchase price is actually paid by the third party and the grid operator only pays the surcharge. See "*—Surcharge*" below.

Surcharge

In addition to the purchase price and the "avoided grid fees", grid operators are obligated to pay a legally determined surcharge to the co-generation plant operators, depending, inter alia, on the type of plant, the installed capacity and extent/costs of modernization and retrofitting measures. In contrast to the electricity price and the "avoided grid fee", which the grid operator is only required to pay for the electricity actually fed into the grid, the surcharge must be paid for the entire amount of electricity produced in co-generation. Depending on the type of the co-generation plant, the surcharge is payable for a certain maximum period of time. Plants with a capacity larger than 2 MWe receive the surcharge for a total of 30,000 hours of Full-Load equivalent (FLE).

The KWKG places a cap on the annual aggregate level of financial incentives paid as surcharge under the KWKG. If this threshold is exceeded, surcharges for a certain class of co-generation plants are reduced. Subject to the cap, this loss in surcharges is generally paid in the full amount in the course of the following years before payment of the regular surcharge for these co-generation plants is initiated again.

Recent Amendments of the KWKG and Associated Developments

The KWKG was amended twice in recent time.

- The KWKG 2016, which entered into force on January 1, 2016, amended the previous scheme of funding co-generation, albeit maintaining the rules on grid access and compulsory off-taking of electricity produced in co-generation. For the newly determined expansion paths, the cap for the annual aggregate level of financial incentives was raised from €750 million to €1,500 million.

- On January 1, 2017, an amendment to the KWKG 2016 entered into force. Most importantly, a tendering system similar to the one under the revised EEG has been established for co-generation plants with an electric capacity of 1 to 50 megawatt as well as for innovative CHP systems. This mainly concerns combined heat and power plants (including the CHP), which feed into the general supply network. Furthermore, the scheme for the reduction of the so-called *KWK-Umlage* (a surcharge, which socializes the costs for the funding of CHP to the end consumers of electricity) for the electricity-intensive industries was adapted to the one in place for the so-called *EEG-Umlage*. For more information, see "*Risk Factors—Risks Related to our Industry and our Business—As a result of the CHP Acquisition, we are directly subject to a wide range of laws and regulations specifically governing the German energy sector and the disposal of waste, which are subject to constant change*".

In addition to these KWKG reforms, the German legislator passed the NeMoG, which includes a revision of Section 18 StromNEV regarding "avoided grid tariffs". In particular, a cap was placed on "avoided grid tariffs" to prevent the relevant tariffs from exceeding the 2016 level. Also it was stipulated to progressively cancel the "avoided grid tariffs" for existing respectively for new plants. For details, see "*—NeMoG*" above.

Carbon Emission Compliance

Germany is party to the Kyoto Protocol as well as to the Paris Agreement, and the Emission Trading Directive 2003/87/EC intends to considerably reduce the output of greenhouse gases. It was transformed into German law by implementing it into the German Greenhouse Gas Emission Trading Act (*Treibhausgas-Emissionshandelsgesetz*, "**TEHG**"). The TEHG introduces an emission trading system ("**ETS**") for CO_2 emission allowances which are traded in certain trading periods, which requires certain energy and industry sectors to comply with the applicable greenhouse gas emissions caps. Overall, only a limited number of allowances—determined in advance for the trading period—are available to emission sources, subject to the emission trading system. Participation in this system has been mandatory since 2005 for all industries with high energy consumption levels, including the paper industry. The regulations of the TEHG state that sources under emission trading obligation are required to obtain approval to emit greenhouse gases, to comply with a cap of emission allowances allocated to them and to maintain a monitoring process to determine and to document their emissions. The legislation also provides for the possibility of trading (selling and buying) excess allowances in the open market and allows for offsets from Joint Implementation and Clean Development Mechanism projects as regulated by the German Project Mechanisms Act to be used in place of emission allowances to a certain extent, which is limited for existing installations to the quota granted for the second trading period (22% of the allocation for the second trading period), to the extent not yet used. Like our two paper mills, the CHP is subject to the ETS.

The overall availability of emission allowances allocated free of charge has been significantly reduced during the second trading period (2008 through 2012) and the third trading period that began in January 2013 compared to the amount of allowances allocated free of charge in the first trading period (2005 through 2007). Under the currently applicable ETS, the EU-wide quantity of emission allowances allocated each year reduced by a linear factor of 1.74% annually as compared to the average annual total quantity of emission allowances issued in the EU between 2008 and 2012. To achieve the target of cutting EU emissions by 40% by 2030 compared to 1990, agreed by the European Council in October 2014 as part of the 2030 climate and energy framework, the cap will be lowered by 2.2% per year from 2021. In addition, from 2013 onwards, the auctioning of emission allowances has been and will continue to be introduced for the manufacturing sector. The quantities of emission allowances allocated free of charge will generally be reduced from 80% in 2013 to 30% in 2020. The European Council and the European Parliament have reached a provisional agreement on the amendment of the directive 2003/87/EC for the fourth trading period (2021 to 2030) on November 9, 2017. According to this agreement, the free allocation of 30% will continue until 2025. Thereafter, the 30 % of free allocation will subsequently be reduced to 0% until 2030 As a result, affected companies whose emissions exceed their emission allowances will have to purchase a significant, and steadily increasing, share of emission allowances in auctions, which may result in substantial additional cost for such companies.

An exemption from the general auctioning mechanism is available for certain energy-intensive industries which are exposed to a significant risk of relocation of plants to countries with less stringent climate protection laws (a phenomenon known as "Carbon Leakage"). Since 2010, the European Commission will determine every five years which industries are threatened by Carbon Leakage. The designated industries will be allocated emission allowances free of charge for the period determined amounting to 100%. Since the paper industry has been granted the relevant status, our two mills receive CO_2 emission certificates free of charge. A part of the Carbon Leakage industry sectors are allowed to apply for financial compensation for the increase of electricity costs due to EU ETS allowance costs passed on in electricity prices, among which is the paper and paperboard industry. The compensation is not enforceable and is granted from funds provided in the federal budget for that purpose for the relevant year.

For the fourth trading period (2021 to 2030), final allocation rules have not been adopted yet. But it can be assumed that no significant changes will be made after the agreement on the amendment of the directive 2003/87/EC of November 9, 2017. The Agreement provides, inter alia, "more targeted provisions on Carbon Leakage, reducing the number of relevant sectors to about 50". Furthermore, the product benchmarks, which determine the amount of allowances allocated free of charge, will decline by 0.2 to 1.6% per year, calculated from the year 2008,in order to account for expected emission reductions due to technological progress. Nevertheless, according to an impact assessment of the European Commission, the paper and paperboard sector can still expect an 80% free allocation. Therefore, the European Commission has to establish an implementation act by December 31, 2019, in which the privileged sectors are listed. After all, a final assessment as to the consequences is not possible yet. In February 2014, the Commission Regulation (EU) No 176/2014 entered into force postponing the auctioning of 900 million emission allowances from 2014 to 2016 to later in the third trading period. By Decision (EU) 2015/1814 of October 6, 2015, the European Parliament and the European Council have established a market stability reserve for the Union greenhouse gas emission trading scheme. According to this Decision, the quantity of 900 million allowances deducted from auctioning volumes during the period 2014-2016 will not be added to the volumes to be auctioned in 2019 and 2020 but will instead be placed in the reserve. Also, Decision (EU) 2015/1814 stipulates that each year a number of allowances equal to 12% of the total number of allowances in circulation, as published by the European Commission, will be deducted from the volume of allowances to be auctioned and will be placed in the reserve over a period of 12 months beginning on September 1 of that year, unless the number of allowances to be placed in the reserve would be less than 100 million. In any year, if the total number of allowances in circulation is less than 400 million, 100 million allowances will be released from the reserve and added to the volume of

allowances to be auctioned. Where fewer than 100 million allowances are in the reserve, all allowances in the reserve will be released. Considering the need to deliver a credible investment signal to reduce CO_2 emissions in a cost-efficient manner and with the aim of strengthening the EU ETS, according to the agreement of November 9, 2017 (see above), Decision (EU) 2015/1814 will be amended so as to increase the percentage rates for determining the number of allowances to be placed each year in the reserve from 12% to 24% and the abovementioned threshold of 100 million allowances to 200 million allowances by December 31, 2023. Furthermore, allowances held in the reserve above the total number of allowances auctioned during the respective previous year should no longer be valid from 2023.

Energy Tax Act (EnergieStG)/Electricity Tax Act (StromStG)

The EnergieStG contains provisions on the taxation of the consumption of energy products. These include coal and fuel oil, which are used in the thermal power plant. Pursuant to Section 53 EnergieStG, it is possible to apply for tax relief for energy products which are used in stationary generation installations with a nominal capacity exceeding 2 MWe and for which the applicable tax has been duly paid. Only the energy products that are directly involved in the energy conversion process taking place in the electricity generation unit are deemed to be "energy products used for the purpose of energy generation" within the meaning of EnergieStG. The party using energy products for the purpose of energy generation is the party eligible to obtain relief.

The StromStG provides for the taxation of consumed electricity. The tax rate is €20.50 per MWh pursuant to Section 3 StromStG. Anyone supplying electricity is principally deemed to be a supplier; exceptions are laid down in sec. 1a Ordinance implementing the StromStG (*Stromsteuerdurchführungsverordnung*, "**StromStV**"). Pursuant to Section 4 subs. 1 sentence 1 StromStG, anyone intending to supply electricity as a supplier requires a license granted upon application by the main customs office. The supplier is obliged to submit a tax return for all electricity for which tax has arisen. In the context of this tax return, the supplier itself must calculate the amount of tax to be paid and settle the amount due with the tax office. Electricity that is removed from the grid for the purpose of generating electricity is tax-exempt if a license for removing electricity for the purpose of generating electricity was granted prior to the removal. Manufacturing companies within the meaning of Section 2 no. 3 StromStG may obtain tax relief pursuant to sec. 9b StromStG in the amount of €5.13 per MWh (if the amount of the relief exceeds €250.00 per calendar year) and an electricity tax relief of up to 90% pursuant to Section 10 StromStG (if the tax to be paid in the calendar year exceeds €1,000.00). The party which has removed electricity for operating purposes is the party eligible to obtain relief.

In 2016, the Federal Ministry of Finance (*Bundesministerium der Finanzen*, "**BMF**") published a draft amendment of the EnergieStG and the StromStG, which foresaw certain limitations and restrictions regarding the aforementioned tax releases, among others a prohibition to combine the tax releases with other State aids (so-called cumulation). The draft has been heavily criticized by the BMWi and has therefore been revised by the BMF. It no longer included the problematic provision on the prohibition of cumulation. On January 1, 2018, the new EnergieStG and the StromStG entered into force without the controversial alteration. As a result, the amendments to the StromStV and the EnergieStV have been published on January 8, 2018 with retroactive effect from January 1, 2018. Key adjustments to the legal framework include – *inter alia* – provisions on the scope and conditions for the granting of subsidies to companies in difficulty (*Unternehmen in Schwierigkeiten*, "**UIS**"), exceptions in the definition of suppliers, the regulation for a simplified application and authorization procedure for battery storage and the specification of the definition of "electromobility".

Energy Services Act (EDLG)

Pursuant to the EDLG, companies that do not constitute micro, small or medium-sized enterprises within the meaning of Commission Recommendation 2003/361/EC of May 6, 2003 (Official Journal L 124 of 20/05/2003, page 36) are obliged to carry out an energy audit by December 5, 2015. This obligation does not apply to companies which, by December 5, 2015, have implemented an energy management system in line with the requirements of DIN EN ISO 50 001 (December 2011 edition) or an environmental management system (EnMS). The CHP has implemented an EnMS and is certified under the Eco-Management and Audit Scheme ("**EMAS**"), a voluntary scheme set up by the European Union that is designed to help companies to continuously improve their environmental performance, but the requirements of the EDLG also apply to current members of the Group. For a description of the EMAS certification of Propapier PM2 GmbH and the EnMS we have implemented at our two paper mills as well as EnMS we have implemented (or plan to implement) at some of our corrugated board production sites, see also "*—Sustainability Focus; Research and Development*". The Company as well as certain of its subsidiaries will still be required to carry out an energy audit under the EDLG.

Electricity Grid Access Ordinance (StromNZV)

The StromNZV governs the conditions for the feed-in and removal of electricity. Therefore, these requirements are also relevant and have to be taken into account with particular regard to the power plant's removal of electricity from the grid.

Environmental laws and other related laws and regulations

Like the operation of our two paper mills, the operation of the CHP requires active permits under the BImSchG, it triggers the various duties and potential liability under the Federal Water Management Act (WHG), the Federal Waste Management Act (KrWG) and the Federal Soil Protection Act (BBodSchG), and it is subject to the rules for the protection of nature and landscape, as well as flora and fauna, that are codified in the Federal Nature Conservation Act (*Bundesnaturschutzgesetz*, "**BNatSchG**") and the State Nature Conservation Act (*Landesnaturschutzgesetz*) in the Federal State of Brandenburg. For more details, please also see "*—Regulatory Environment—Environmental Laws*" *and* "*—Regulatory Environment—Soil Contamination*" above.

The technological standards applicable in relation to the requirements under the BImSchG are substantiated by technical regulations as determined in ordinances based on the BImSchG or technical regulations, as amended from time to time. For the CHP, the 13th Ordinance (Ordinance on Large Combustion Plants, Gas Turbine Plants and Internal Combustion Engines) and the 17th Ordinance (Ordinance on the Incineration and Co-Incineration of Waste) to the BImSchG are of particular importance, the latter one particularly with regard to the co-incineration of sewage sludge. The legal framework for the utilization/disposal of sewage sludge is currently being revised with the aim of a better recovery of phosphates, which may lead to a declining use of sewage sludge in incineration plants.

The compliance with emission limits, which are stipulated in the permit for the CHP, will be controlled regularly and, if necessary, can be altered subsequently by the authorities. The competent authority may withdraw the permit if the CHP does not comply with the applicable emission limits as determined in the permit.

The BImSchG also specifies the obligations of certain installation operators to notify the competent authorities of operational disruptions and to implement a monitoring following such disruptions. Operators of industry emissions installations have to provide annual reports of their emissions monitoring to the competent authorities and there are environmental inspections on a regular basis for such installations.

The Technical Instructions on Air Quality Control (*Technische Anleitung Luft*—"**TA Luft**"), which have to be followed by any installation falling under the BImschG (such as power plants), are under revision. However, in May 2017 the revision of the TA Luft was postponed by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (*Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit*, "**BMUB**") for an undefined time. Once the revision will have proceeded, the emission limit values for fine dust will, among other potential changes, likely be tightened and certain adaptions will also likely be implemented with regard to the Best Available Technology (*Beste Verfügbare Technik*, "**BVT**") reference documents.

LEGAL PROCEEDINGS

From time to time, we are involved in administrative, legal and arbitration proceedings that arise in the ordinary course of business. Neither we nor any of our subsidiaries are currently involved in any litigation, administrative proceedings or arbitration relating to claims or amounts that are material to our business and, to our knowledge, no such litigation, administrative proceeding or arbitration is pending or threatened. The outcome of legal proceedings, however, are difficult to predict with any certainty and we can offer no assurances in this regard.

SHAREHOLDERS

Following completion of the 2015 Refinancing, as described under "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Key Factors Affecting our Results of Operations—The 2015 Refinancing*", 91.05% of the registered share capital of the Company are being held by JH-Holding, a holding company controlled by our chief executive officer, Jürgen Heindl. The remaining 8.95% of the registered share capital of the Company are being held by two minority shareholders who are not involved in the management of our business. Pursuant to a shareholders' agreement, the two minority shareholders have the right to jointly designate a member of our Supervisory Board. However, this right is currently suspended until October 2022. As a result, the two minority shareholders are currently not able to influence the composition of the Supervisory Board.

The shareholders of JH-Holding, which has a share capital of €1,000,000, are Jürgen Heindl, who holds 52.0% of JH-Holding's shares (including two shares in a nominal amount of €1,000, which together provide Mr. Heindl with a qualified majority of 75% of the voting rights in the shareholders' meeting of JH-Holding), and his two sons, Maximilian Heindl and Vinzenz Heindl, who each hold 24.0% of JH-Holding's shares.

MANAGEMENT

OVERVIEW

In accordance with the German Stock Corporation Act (*Aktiengesetz*), the Company has a two-tier board system consisting of an Executive Board (*Vorstand*) and a Supervisory Board (*Aufsichtsrat*). The two boards are separate, and, subject to a limited exception, no individual may serve concurrently as a member of both boards.

The Executive Board is responsible for managing our day-to-day business in accordance with applicable German law and the Articles of Association (*Satzung*) as well as its rules of procedure (*Geschäftsordnung*). In addition, the Executive Board must ensure appropriate control of risk within the Company and its subsidiaries in order that any developments jeopardizing the Company's future as a going concern may be identified at an early stage. The Executive Board legally represents the Company in dealings with third parties and in court.

The Supervisory Board advises the Executive Board on the management of the Company, monitors its conduct of business and is responsible for appointing and dismissing the members of the Executive Board for good cause. It also represents the Company in transactions between a member of the Executive Board and the Company. While the Executive Board is responsible for submitting regular reports on our business activities and fundamental issues relating to corporate planning (including financial, investment and personnel planning) to the Supervisory Board, the Supervisory Board has the right to request special reports at any time from the Executive Board. The Executive Board is also obliged to duly report to the Supervisory Board such transactions as may be of considerable importance to the Company's profitability (in particular the return on equity) or liquidity, so that the Supervisory Board may have an opportunity to express its opinion on such transactions before they are concluded. The Supervisory Board may also request a report at any time on matters concerning the Company, on the legal and commercial relationships with affiliated companies or on commercial operations at these companies that may have a significant impact on the Company and its subsidiaries.

The Supervisory Board generally may not exercise management functions. The rules of procedure of the Executive Board, however, require that certain types of transactions may not be carried out by the Executive Board without the prior consent of the Supervisory Board. If the Supervisory Board refuses to approve a certain transaction or business activity contemplated by the Executive Board, the Executive Board can request that the general shareholders' meeting decide on the matter. However, the general shareholders' meeting of a German stock corporation may not issue directives to the Executive Board.

The members of the Executive Board and the Supervisory Board owe duties of loyalty and care *vis-à-vis* the Company. In discharging their duties, the members of these corporate bodies must consider a broad range of interests, including our interests, which in turn include the interests of our shareholders, employees, creditors and, to a certain extent, the general public. The Executive Board must also take due account of the shareholders' right to equal treatment and equal information. The members of the Executive Board or of the Supervisory Board are jointly and severally liable to the Company for any damages that may arise if they fail to discharge their duties.

As a basic principle under German law, a shareholder has no direct recourse against the members of the Executive Board or the Supervisory Board in the event that they breach a duty *vis-à-vis* the Company. Except for certain special circumstances, only the Company itself has the right to bring claims for damages against members of either board, whereby the Company is represented by the Executive Board when bringing claims against the Supervisory Board and by the Supervisory Board when bringing claims against the Executive Board. Pursuant to a ruling by the German Federal Court of Justice (*Bundesgerichtshof*), the Supervisory Board is obliged to bring claims which are likely to be successful against the Executive Board unless material considerations pertaining to the interest of the corporation outweigh or are at least equivalent to those in favor of enforcing such claim. Despite a refusal of the Supervisory Board to pursue a claim for damages, such a claim must be enforced (i) upon a resolution of the general shareholders' meeting, (ii) upon a petition with the competent court by minority shareholders meeting a certain minimum requirement as to their stake in the Company, or (iii) by the Company's creditors whose claims could not be settled by the Company. The Company may only waive or settle such claims for damages if at least three years have passed and if the shareholders approve the waiver or settlement at the general shareholders' meeting with a simple majority of the votes cast, provided that opposing shareholders do not hold, in the aggregate, one tenth or more of the share capital and do not have their opposition formally recorded in the minutes of the shareholders' meeting.

Under German law, no individual shareholder (or any other person) may exert its influence on the Company to cause a member of the Executive Board or the Supervisory Board to engage in any act detrimental to the Company. Shareholders with a controlling interest may not use it to cause the Company to act against its own interest unless the prejudice to its interests is compensated for. Any shareholder using its interest in the Company to cause a member of the Executive Board, a member of the Supervisory Board or a person who holds a power of attorney (*Prokurist*) or is authorized to act for the Company (*Handlungsbevollmächtigter*) to engage in any act detrimental to the Company or to our shareholders must compensate the Company and the shareholders for any loss sustained thereby. In addition, the members of the

Executive Board and the members of the Supervisory Board are jointly and severally liable if they act in breach of their obligations.

Progroup AG provides for a directors and officers liability insurance policy for all members of the Executive Board and the Supervisory Board and for certain other managers with leadership responsibilities within Progroup AG and its subsidiaries.

Executive Board

General Information

The Executive Board is responsible for managing the business of the Company in accordance with the German Stock Corporation Act, the Company's Articles of Association and the rules of procedure (*Geschäftsordnung*) for the Executive Board. The Executive Board also represents the Company in its dealings with third parties and in court. According to the Articles of Association and the provisions of the German Stock Corporation Act, the Executive Board must consist of a minimum of one member. The Supervisory Board determines the number of members of the Executive Board and appoints such members. It may also appoint the Chairman and Deputy Chairman of the Executive Board. Members of the Executive Board are appointed for a maximum term of five years. They may be repeatedly reappointed or their term of office may be extended, in each instance for a period of up to five years. The Supervisory Board may revoke the appointment of a member of the Executive Board before the end of his or her term of office for good cause, such as gross breach of duty or in case of a vote of no confidence by the general shareholders' meeting.

The Executive Board has overall responsibility for the Company's business. In accordance with its allocation-of-responsibilities plan (*Geschäftsverteilungsplan*), each member of the Executive Board is assigned an area of responsibility defined in such plan, which sets out the allocation of responsibilities. Notwithstanding the overall responsibility held by the Executive Board, each member of the Executive Board is responsible for the area allocated to him or her. Pursuant to the rules of procedure (*Geschäftsordnung*) for the Executive Board, certain management actions may only be taken, and certain types of transactions may only be concluded, with the approval of the Supervisory Board. As a rule, the Executive Board should meet every week. The Executive Board has a quorum if a meeting has been called with due notice and all or, in the event that the Executive Board has more than two members, at least half of the members which must include the Chairman are present. If not otherwise required by law, the Executive Board decides by a simple majority of the votes cast. In the event of a tie, the Chairman has the deciding vote. Members of the Executive Board may not deal with, or vote on, measures relating to proposals, arrangements or contracts between him/herself and the Company.

Individual board members serve as representatives with primary responsibility for the Company's various corporate functions and for the fields of business in which the Company operates. Despite this internal allocation of responsibilities, each member of the Executive Board has overall responsibility (*Gesamtverantwortung*) for the Company as a whole.

The Company's Articles of Association provide that the Company can be legally represented by two members of the Executive Board or by one member of the Executive Board in conjunction with an authorized signatory who holds a power of attorney (*Prokurist*). The Supervisory Board has granted the Chairman, Mr. Jürgen Heindl, authorization to solely represent the Company in accordance with the Articles of Association.

The Supervisory Board may appoint deputy members of the Executive Board who, in accordance with the German Stock Corporation Act, have the same rights and responsibilities as the regular members of the Executive Board.

Members of the Executive Board

The following table sets forth the current members of the Company's Executive Board.

Name	Age	Member since	Appointed until	Responsibility	Other principal positions
Jürgen Heindl.....	63	2007	August 28, 2022	Chief Executive Officer	Propapier PM1 GmbH Propapier PM2 GmbH Prowell GmbH Proservice GmbH PROfund GmbH Prowell S.A.S. Prowell s.r.o. Prowell sp. z o.o. Prowell Ltd. Prowell S.r.l. Prowell Verwaltungs GmbH JH-Holding GmbH
Dr. Volker Metz.....	43	2016	October 31, 2021	Chief Financial Officer	Propapier PM1 GmbH Propapier PM2 GmbH Prowell GmbH Proservice GmbH PROfund GmbH Prowell S.A.S. Prowell s.r.o. Prowell sp. z o.o. Prowell Ltd. Prowell S.r.l. Prowell Verwaltungs GmbH
Philipp Kosloh	44	2016	October 31, 2021	Deputy Member of the Executive Board	Prowell GmbH Prowell S.A.S. Prowell s.r.o. Prowell sp. z o.o. Prowell Ltd. Prowell S.r.l.
Maximilian Heindl……	34	2017	July 31, 2022	Deputy Member of the Executive Board	Propapier PM1 GmbH Propapier PM2 GmbH

The business address of each member of the Executive Board is Progroup AG, Horstring 12, 76829 Landau, Germany.

Jürgen Heindl. Mr. Heindl studied electrical engineering at the University of Applied Science Dieburg and business engineering at the University of Applied Science Esslingen. He began his career in 1980 at Zewawell GmbH & Co. KG, as assistant of the general management. From 1982 to 1987, he was plant manager conducting a restructuring program and from 1987 to 1991 he was division manager and member of the board of Zewawell GmbH & Co. KG. In 1991, Mr. Heindl founded PROWELL Papierverarbeitung GmbH, predecessor of today's Progroup AG, and from 1991 to 2007, he was active as sole managing director of PROWELL Papierverarbeitung GmbH. Since establishing Progroup AG in 2007, Mr. Heindl has been a member of the Executive Board. Since 2008, he has served as Chairman of the Executive Board. In 2017, the Supervisory Board extended the appointment of Mr. Heindl for another period of five years until August 28, 2022.

Dr. Volker Metz. Dr. Metz studied business economics at the university of Mannheim, where he obtained his Ph.D. in 2006, and at the university of Wales. He started his professional career in 2001 as consultant at Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft in Mannheim, where he was soon promoted to become project manager in the transaction advisory services department in 2005. From 2007 to 2009 he worked for EnBW Energie Baden-Württemberg AG, Karlsruhe, as senior manager controlling networks. From 2009 to 2016 Dr. Metz was active as head of controlling of Progroup AG. At the beginning of 2016 he opted for a career opportunity to become commercial division manager of GGEW, Gruppen-Gas- und Elektrizitätswerk Bergstraße Aktiengesellschaft, Bensheim. As of November 1, 2016, Dr. Metz returned to Progroup AG and was appointed as member of the Executive Board of Progroup AG and chief financial officer of the Group for a period of five years.

Philipp Kosloh. After completion of an apprenticeship as packaging mechanic Mr. Kosloh studied packaging engineering at the technical college of Berlin, followed by an MBA course at the Southbank University Business School, London. He began his professional career as production engineer at Kellogg's Company of Great Britain Limited, Manchester, in 1999. From 1998 to 2000 he was employed as consultant at Berndt & Partner GmbH, Berlin. From 2001 to 2009 Mr. Kosloh was member of the extended management board of Progroup AG and Progroup AG's predecessor PROWELL Papierverarbeitung GmbH and managing director of the logistics subsidiary Prologistik GmbH. In 2009 he had opted for a career opportunity with Progroup AG's competitor Smurfit Kappa where he was general manager for the region southwest Germany with three integrated corrugated board production sites. As of November 1, 2016, Mr. Kosloh returned to Progroup AG and was appointed as deputy member of the Executive Board of Progroup AG for a period of five years, with a view to becoming our first chief operating officer. Mr. Kosloh is currently responsible for Progroup AG's corrugated board division, Prologistik, purchasing and IT.

Maximilian Heindl. Mr. Maximilian Heindl studied business engineering at the Karlsruher Institute for Technology (KIT) in Karlsruhe. After completion of apprenticeships with Visy Industries Australia Pty Ltd and EnBW Operations GmbH he started his professional career as international trainee at Voith Papier Holding GmbH & Co. KG in 2012. He became assistant to the President of the Business Line P&S at Voith Papier GmbH & Co. KG in 2014, where he was further promoted to become director of production P&S EMEA in 2015. Picking up the family track, Mr. Maximilian Heindl resumed an appointment as head of Progroup's paper division in 2016 and, since 2017, he also serves as deputy member of Progroup AG's Executive Board. Mr. Maximilian Heindl is currently responsible for Progroup AG's containerboard business and Propower.

Compensation

The members of the Executive Board do not receive any separate remuneration other than their respective remuneration as members of the Executive Board. The remuneration of the members of the Executive Board consists of a fixed component and variable compensation elements. The fixed component comprises a base salary and payments in kind. The variable components include annually recurring components tied to business performance and, except for Mr. Jürgen Heindl, the achievement of certain targets. Further, our chief executive officer, Mr. Jürgen Heindl, is entitled to special bonus payments upon the completion and successful commissioning of new plants by the Company or any of its subsidiaries. The base salaries are paid in twelve equal monthly installments. The payments in kind consist mainly of the use of company vehicles and certain insurance contributions, including contributions to health insurance, whole life insurance, disability insurance and term life insurance, as well as pension contributions. The Company has also granted a pension commitment (*Versorgungszusage*) to our chief executive officer, Mr. Jürgen Heindl, comprising a retirement pension as well as a disability pension and a widow's and orphan's pension.

The total compensation of the members of the Executive Board amounted to €5.6 million in 2017. These amounts included fixed salaries, payments in kind and variable performance and target related compensations. The payments in kind included the use of company cars and premiums for health, accident and life insurance.

The Company has obtained D&O insurance covering, amongst others, the members of the Executive Board.

Supervisory Board

Overview

The Supervisory Board currently consists of three members, which are elected by the Company's shareholders at the general shareholders' meeting by a simple majority of the votes cast.

The Supervisory Board members elect one of the members as Chairman (*Vorsitzender*) and another one as Vice-Chairman (*Stellvertreter*) by a simple majority of the votes cast.

Unless the general shareholder's meeting elects the member for a shorter period, the term of a member of the Supervisory Board elected by the shareholders expires at the end of the fifth general shareholders' meeting following the general shareholders' meeting in which the member was elected. If a member of the Supervisory Board retires, or is removed from office prior to the end of its term of office, the substitute member's term of office expires at the end of the term of the resigning or removed board member, unless the general shareholders' meeting decides otherwise. There is no compulsory retirement age for the members of the Supervisory Board. No former Executive Board members of Progroup AG are currently serving on the Supervisory Board.

Unless otherwise required by applicable law, resolutions of the Supervisory Board are passed by a simple majority of the votes cast. In order to constitute a quorum, all members must be invited with due notice and all members of the Supervisory Board must participate in the voting.

The Supervisory Board is required to meet at least twice in each half of every calendar year.

Members of the Supervisory Board

The following table sets forth the name, age, year of appointment, end of current term and the other principal positions of each of the current members of the Company's Supervisory Board.

Name	Age	Member since	Appointed until	Other principal positions
Rainer Dietmann (Chairman)	61	2007	2018[1]	Chairman of the supervisory board of Global Vermögensberatung AG, Wiesbaden Member of the supervisory board of SSP Deutschland GmbH, Eschborn Chairman of the foundation board of Heinrich-Vetter-Stiftung, Ilvesheim
Prof. Dr. Rudolf Wimmer (Vice Chairman) ...	71	2008	2018[1]	Vice-Chairman of the supervisory board of PBS-Holding AG, Wels/Austria Chairman of the advisory board of Diagramm Halbach GmbH & Co. KG, Schwerte Member of the advisory board of Karl Wörwag Lack- und Farbenfabrik GmbH & Co.KG, Stuttgart Member of the supervisory board of Hermes Europe GmbH, Hamburg
Prof. Dr. Hermut Kormann.....	75	2015	2018[1]	Chairman of the supervisory board of ReadHead Family Corporation, Odessa/Ukraine Chairman of the advisory board of Brohl Wellpappe GmbH & Co. KG, Mayen Member of the supervisory board of WITTENSTEIN SE, Igersheim

(1) The current appointments of all Supervisory Board members will expire at the end of the annual general shareholders' meeting of the Company which has been convened for April 26, 2018. The Supervisory Board has proposed to the shareholders' meeting to re-elect all current Supervisory Board members for new terms of five years each and it is expected that the shareholders' meeting will follow this proposal. The Supervisory Board members have already indicated that they will accept such re-election.

The business address of each member of the Supervisory Board is Progroup AG, Horstring 12, 76829 Landau, Germany.

Rainer Dietmann. Mr. Dietmann studied law at the University of Mannheim and the London School of Economics. He began his career as attorney-at-law in Munich in 1985. In 1986, he joined Rittershaus Wissmann & von Rosenstiel, predecessor of today's Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, where he became partner in 1988.

Prof. Dr. Rudolf Wimmer. Prof. Dr. Wimmer studied law and political science at the university of Wien. From 1970 to 1975, he was active as assistant professor at the Institute for Constitutional and Administrative Law at the University of Wien. In the years 1975 to 1977 he enjoyed a research grant at the University of Klagenfurt. Since 1977, Prof. Dr. Wimmer is active as an independent trainer and advisor for organizational development. In 1990, Prof. Dr. Wimmer wrote his professional thesis on group dynamics and organization at the University of Klagenfurt. In 1999, he assumed the professorship for management and organization at the newly established Institute for Family-Owned Enterprises at the University of Witten/Herdecke.

Prof. Dr. Hermut Kormann. Prof. Dr. Kormann studied business administration at the Erlangen-Nuremberg University between 1961 and 1965 and earned his Ph.D. in 1968. In 1966 he became research assistant to the Chair for Business Administration of Prof. Dr. Eugen H. Sieber, with focus on corporate management in Nuremberg. Prof. Dr. Kormann served as member of the management board of Voith AG, Heidenheim/Brenz, from 1989 to 2008, first as chief financial officer and, since 2000, as president and CEO. Voith AG is a global engineering group established 1867 in Germany and today wholly owned by the fifth and sixth generation of the Voith families. Prior to his activities at Voith AG, Prof. Dr. Kormann held management positions at Brown, Boveri & Cie. AG (now part of the ABB group), at the family-holding of the Otto group and at Booz & Co. Management Consultants. Prof. Dr. Kormann served and serves on various supervisory boards of family companies. Since 2006 Prof. Dr. Kormann is active as visiting professor at the Leipzig University for General Business Administration, and since 2009 at the Zeppelin-University, Friedrichshafen, with a particular focus on strategy and corporate governance of family businesses.

Supervisory Board Committees

The Supervisory Board has not formed any committees.

Compensation

Pursuant to a resolution of the Company's shareholders' meeting adopted on November 23, 2017 in accordance with the Articles of Association, members of the Supervisory Board receive a fixed annual compensation in the amount of €24,000, while the Chairman receives a fixed annual compensation in the amount of €60,000 and the vice chairman receives a fixed annual compensation in the amount of €35,000. In addition, the Company reimburses the members of the Supervisory Board for their out-of-pocket expenses incurred in the performance of their duties as Supervisory Board members.

The Company's shareholders' meeting 2017 granted bonuses to the members of the Supervisory Board for the years 2015 and 2016 in a total amount of €95,500.

The Company has obtained D&O insurance covering, amongst others, the members of the Supervisory Board.

Further Information about Members of the Executive Board and the Supervisory Board

During the last five years, no member of the Executive Board or the Supervisory Board has been convicted in relation to fraudulent offenses.

During the last five years, no member of the Executive Board or the Supervisory Board has acted in any capacity at any entity which was subject to any bankruptcies, receiverships or involuntary liquidations.

No official public incrimination and/or sanctions by any statutory or regulatory authority against any member of the Executive Board or the Supervisory Board has occurred. No member of the Executive Board or the Supervisory Board has ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct the affairs of any issuer during the last five years.

Progroup has not granted any loans to Executive Board or Supervisory Board members. The members of the two corporate bodies have not concluded any transactions with the Company that lie outside the Company's normal operating activities.

No members of the Executive Board or the Supervisory Board have any conflicts of interest between their duties to the Company and their private or other interests. Rainer Dietmann, however, is partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB who provides legal services to the Company and other members of the Group. For information on this relationship, see "*Certain Relationships and Related Party Transactions*".

No Executive Board or Supervisory Board member has concluded any service contract with any of the Group's companies that includes special benefits upon the end of the service. No family relationships exist among the members of the Executive Board and the Supervisory Board or within any of these bodies. Except for Mr. Jürgen Heindl, Chairman of the Executive Board, and his son Mr. Maximilian Heindl, deputy member of the Executive Board, who indirectly hold, together with members of their immediate family, 91.05% of the registered share capital of Progroup AG via their private holding company, JH-Holding, no member of the Executive Board and the Supervisory Board (including persons closely related to them) currently holds shares in the Company. See also "*Shareholders*".

The Company provides management services to JH-Holding, and the D&O insurance of JH-Holding also provides for coverage of the management of the Company. For information on this relationship, see "*Certain Relationships and Related Party Transactions*".

General Shareholders' Meetings

Pursuant to the Articles of Association, general shareholders' meetings are convened by the Executive Board or, in certain instances, by the Supervisory Board. Depending on the choice of the convening body, general shareholders' meetings take place at the Company's registered office, a German city with more than 100,000 inhabitants or the registered office of an affiliated company (*verbundenes Unternehmen*) within the meaning of Article 15 of the German Stock Corporation Code (*Aktiengesetz*). Each of the Shares of the Company carries one vote at the Company's general shareholders' meeting. There are no restrictions on voting rights of the shares of the Company.

Unless mandatory provisions of the German Stock Corporation Act or the Articles of Association state otherwise, general shareholders' meeting resolutions are passed with a simple majority of the votes cast. In accordance with the German Stock Corporation Act, resolutions of fundamental importance require, in addition to a simple majority of the votes cast, a majority of at least three quarters of the share capital represented in order to pass such a resolution. Such resolutions of fundamental importance include in particular:

- changes in the Articles of Association;
- share capital increases;
- share capital decreases;
- the creation of authorized or contingent capital;
- divisions or split-offs as well as transfers of the entire assets of the Company;
- conclusions of inter-company agreements (in particular, domination agreements and profit and loss transfer agreements);
- changes in the legal form of the Company; and
- liquidation of the Company.

The general shareholders' meeting can be convened at the request of the Executive Board, the Supervisory Board, or shareholders whose shares together total at least 5% of the share capital. If the best interests of the Company require it, the Supervisory Board must call a general shareholders' meeting. The regular general shareholders' meeting takes place within the first eight months of every financial year.

Neither German law nor the Articles of Association restrict the right to own shares or to exercise the associated voting rights for German non-residents or for foreign owners of shares.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Provision of Share Pledges by JH-Holding GmbH and our Minority Shareholders

On February 26, 2018, the Company entered into three agreements with JH-Holding and its two minority shareholders. The agreements provide for JH-Holding and the two miniority shareholders to continue to grant security over their shares in the Company to secure our obligations under the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured EUR Facility, the Senior Secured GBP Facility, the Senior Secured Floating Rate Notes and the New Notes. On March 8, 2018, we made €19.3 million in lump sum fee payments to JH-Holding and our minority shareholders under the agreements.

Management Services Agreement with JH-Holding

The Company provides management services to its shareholder JH-Holding comprising, in particular, accounting services and assistance in the preparation of financial statements and reporting, pursuant to an agreement dated July 22, 2015, and receives remuneration for the provision of such management services, which, in 2017, amounted to €44,410. In addition we cross-charged direct cost of €481, to JH-Holding in 2017. Furthermore, the D&O insurance for the Company's management is paid by JH-Holding, which is reimbursed by the Company for the premiums related to such D&O insurance. These transactions between the Company and JH-Holding are carried out at arm's length.

Legal services rendered by Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB

The law firm Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, Mannheim, Frankfurt/Main, Munich, has been providing legal advice to Progroup AG and other members of the Group on various matters for a number of years. Rainer Dietmann, who serves as chairman of the Supervisory Board of Progroup AG, is also a partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB. The retention of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB as the Group's legal counsel has been approved by the Supervisory Board of Progroup AG in accordance with the applicable provisions of the German Stock Corporation Act.

Services rendered by HHC UG

From time to time Progroup AG or other companies of the Group engage HHC UG, a limited liability company under German law solely owned and managed by Mrs. Herta Heindl, the spouse of Mr. Jürgen Heindl, to render certain services for individually specified projects. The conditions of such engagements include an hourly fee of €110 (net) and have been approved by the Supervisory Board of Progroup AG. The total remuneration, including costs to be reimbursed, billed to Progroup AG and other companies of the Group in 2017 amounted to €227,841.86.

DESCRIPTION OF CERTAIN FINANCING ARRANGEMENTS

The following summary of certain provisions of the documents listed below governing certain of our indebtedness does not purport to be complete and is subject to, and qualified in its entirety by reference to, the underlying documents. Unless otherwise defined in this annual report or unless the context otherwise requires, terms defined in the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured EUR Facility, the Senior Secured GBP Facility and the Intercreditor Agreement shall have the same meanings when used in this section.

*On December 21, 2017, the Company and the Guarantors entered into amendment and restatement agreements relating to the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities (the "**Amendment and Restatement Agreements**"). Pursuant to the terms of the Amendment and Restatement Agreements, the Super Senior Revolving Credit Facility and the Senior Secured PLN Facilities will be amended and restated in their entirety with effect from (and including) the Effective Date (as defined in each Amendment and Restatement Agreement). The Effective Date under each Amendment and Restatement Agreement will be the date on which the relevant agent under the Super Senior Revolving Credit Facility and each Senior Secured PLN Facility, as applicable, notifies the Company and the relevant lenders that all relevant conditions precedent under the relevant Amendment and Restatement Agreement are satisfied. We expect to satisfy all remaining conditions precedent and, therefore, the Effective Date under the Amendment and Restatement Agreements to occur, on or around the issue date of the New Notes. Concurrently with the entry into the Amendment and Restatement Agreements on December 21, 2017, the Company and the Guarantors also entered into the Senior Secured EUR Facility and the Senior Secured GBP Facility. The utilization of the Senior Secured EUR Facility and the Senior Secured GBP Facility is also subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent issue date of the New Notes. On or prior to the issue date of the New Notes, we intend to further amend, supplement or replace (as applicable) the Amendment and Restatement Agreements, the Senior Secured EUR Facility and the Senior Secured GBP Facility by way of certain amendment agreements (collectively, the "**2018 Facility Amendment Agreements**") so that the restrictive covenants in the covenant schedule of each facility will closely track the relevant restrictive covenants contained in the conditions of issue of the New Notes. The descriptions of certain provisions of the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured EUR Facility and the Senior Secured GBP Facility set forth below summarize the relevant provisions of those documents as amended and restated by the Amendment and Restatement Agreements and those further amendment agreements, as applicable.*

Following the completion of the Refinancing, we intend to enter into an amendment and restatement agreement relating to the Intercreditor Agreement. In addition to various technical amendments that will not adversely affect the Holders in any material respect, we intend to amend and restate the definition of "Credit Facility" and related terms in the Intercreditor Agreement to include, in addition to the Super Senior Revolving Credit Facility, certain credit facilities which are permitted by the terms of the Pari Passu Debt Documents (as defined in the Intercreditor Agreement) to receive priority to the Pari Passu Debt Liabilities (as defined in the Intercreditor Agreement) with respect to the proceeds of any enforcement of the Collateral. As a result, the total amount of Indebtedness under a Credit Facility that may be secured by Liens on a super priority basis will increase from up to €50 million to up to €80 million. In addition, we intend to amend and restate the Intercreditor Agreement to increase the Priority Hedging Limit (as defined in the Intercreditor Agreement from up to €35 million to up to €80 million. In the Amendment and Restatement Agreements, the Senior Secured EUR Facility and the Senior Secured GBP Facility, the relevant lenders have already agreed to execute and/or instruct the relevant agent and the Security Agent to execute, at the request of the Company, one or more amendment and restatement agreements to the Intercreditor Agreement so the Intercreditor Agreement will be so amended and restated. Furthermore, the 2018 Facility Amendment Agreements will propose to further amend the Intercreditor Agreement to delete certain parent undertakings. Similarly, the conditions of issue governing the Senior Secured Floating Rate Notes provide, and the conditions of issue that will govern the New Notes will provide, that, at the direction of the Company and without the consent of the relevant holders' representative, the Security Agent or an holder of the Senior Secured Floating Rate Notes or the New Notes, the relevant holders' representative and the Security Agent shall enter into the proposed amendment and restatement to the Intercreditor Agreement. The descriptions of certain provisions of the Intercreditor Agreement set forth under "Description of Certain Financing Arrangements—Amended and Restated Intercreditor Agreement" below therefore summarize the relevant provisions of the Intercreditor Agreement as so amended and restated.

AMENDED AND RESTATED SUPER SENIOR REVOLVING CREDIT FACILITY

On April 23, 2015, we entered into the Super Senior Revolving Credit Facility. The Super Senior Revolving Credit Facility provides for €50.0 million of committed financing (the "**Total Commitments**"), which will be available for utilization by way of the drawing of cash revolving loans, and by way of ancillary facilities, until the date falling one month prior to the Final SSRCF Maturity Date (as defined below). On December 1, 2015, we entered into an amendment to the Super Senior Revolving Credit Facility to re-set the previous consolidated net leverage ratio test , upon the CHP Acquisition being completed. On December 21, 2017, we entered into an amendment and restatement agreement relating to the Super Senior Revolving Credit Facility (the "**SSRCF Amendment and Restatement Agreement**"). Pursuant to

the terms of the SSRCF Amendment and Restatement Agreements, the Super Senior Revolving Credit Facility will be amended and restated in its entirety with effect from (and including) the Effective Date (as defined in the SSRCF Amendment and Restatement Agreement). The "**Effective Date**" under the SSRCF Amendment and Restatement Agreement will be the date on which the agent under the Super Senior Revolving Credit Facility notifies the Company and the relevant lenders that all relevant conditions precedent under the SSRCF Amendment and Restatement Agreement are satisfied. We expect to satisfy all remaining conditions precedent and, therefore, the Effective Date under the SSRCF Amendment and Restatement Agreement to occur, on or prior to the issue date of the New Notes. On or prior to the issue date of the New Notes, we intend to further amend the SSRCF Amendment and Restatement Agreement so that the restrictive covenants in the covenant schedule of the Super Senior Revolving Credit Facility will closely track the relevant restrictive covenants contained in the conditions of issue of the New Notes. The following descriptions of certain provisions of the Super Senior Revolving Credit Facility therefore summarize the relevant provisions of the Super Senior Revolving Credit Facility as amended and restated by the SSRCF Amendment and Restatement Agreement, as so further amended. Pending the "Effective Date" (as defined in the SSRCF Amendment and Restatement Agreement), the availability of the Super Senior Revolving Credit Facility is suspended and no utilizations are currently possible under the Super Senior Revolving Credit Facility.

In addition to amending and restating the covenant schedule of the Super Senior Revolving Credit Facility so that the relevant restrictive covenants will closely track those that will be contained in the conditions of issue of the New Notes, the SSRCF Amendment and Restatement Agreement affects various technical amendments and improvements. Furthermore, the Super Senior Revolving Credit Facility, as amended and restated by the SSRCF Amendment and Restatement Agreement, will generally have significantly improved terms and allow the Company greater flexibility. In particular, among other amendments (i) Goldman Sachs International Bank and J.P. Morgan Securities plc will become new, additional lenders under the Super Senior Revolving Credit Facility, (ii) the final maturity date of the Super Senior Revolving Credit Facility will be extended to the date falling six (6) years after the "Effective Date" of the SSRCF Amendment and Restatement Agreement, (iii) the Super Senior Revolving Credit Facility will have an uncommitted "accordion feature" which will give us the option to increase the total commitments under the Super Senior Revolving Credit Facility from currently €50,000,000 to up to €80,000,000, (iv) there will be no more restrictions on the use of any amounts borrowed under the Super Senior Revolving Credit Facility, (v) there will be no more requirements for a "clean down" (i.e. no more requirement to periodically reduce the utilization under the Super Senior Revolving Credit Facility to a specified amount), (vi) there will be no more limit on the amount of undrawn commitments under the Super Senior Revolving Credit Facility that may be made available by way of ancillary facilities, (vii) the change of control provisions will be amended to more closely track those contained in the conditions of issue for the New Notes, (viii) there will be no more requirements for mandatory prepayments and related cancellation of commitments in connection with the receipt of certain net insurance proceeds or certain listing proceeds, (ix) the margin for borrowings under the Super Senior Revolving Credit Facility will be reduced from currently 3.00% per annum to 2.00% per annum, (x) the current springing consolidated net leverage ratio financial covenant will be replaced with a more flexible springing interest coverage ratio financial covenant, which will also include a so-called "mulligan" (i.e. a provision that, for a maximum of four times during the life of the facilities under the Super Senior Revolving Credit Facility, a breach of the interest coverage ratio financial covenant will only constitute a default if it is not complied with in respect of two successive testing periods), (xi) the current note purchase condition in the Super Senior Revolving Credit Facility will be replaced with a more flexible purchase condition, which will give us more flexibility in connection with potential future refinancings and/or debt repayments and (xii) the guarantor coverage test in the Super Senior Revolving Credit Facility will be amended so that it will become an EBITDA test only and include additional and longer grace periods. In the SSRCF Amendment and Restatement Agreement, the lenders under the Super Senior Revolving Credit Facility further consent to the release of any security interests over insurance receivables and intra-group receivables granted by the Company and the Guarantors, upon the release and discharge (other than as a result of an enforcement action) of any and all Liens (other than Permitted Liens) over such assets, so long as no event of default exists at such time or would arise as a result of such release. Borrowings under the Super Senior Revolving Credit Facility and any utilization of any ancillary facilities may be used for the general corporate purposes of the Group.

The original borrowers under the Super Senior Revolving Credit Facility are the Company, Prowell s.r.o., Prowell sp. z o.o., and Prowell Ltd. The Super Senior Revolving Credit Facility is being guaranteed by the Guarantors (as defined below under "*Security and Guarantees*") and the Company. The facility agent (the "**Agent**") under the Super Senior Revolving Credit Facility is Deutsche Bank Luxembourg S.A.

Increase Option

The Company may, on one or more occasions and subject to certain conditions set out in the Super Senior Revolving Credit Facility, by delivering to the Agent a duly completed increase request no later than thirty (30) business days nor earlier than sixty (60) business days before the date on which such increase is to take effect, request an increase of the total commitments under the Super Senior Revolving Credit Facility in an amount that is €10 million or, if more, an integral multiple of €1 million, provided that the aggregate amount of any such increases of the total commitments must not exceed €30 million. This provision will give us the option to increase the total commitments under the Super Senior

Revolving Credit Facility from currently €50 million to up to €80 million. Each lender under the Super Senior Revolving Credit Facility will have the right, at its sole discretion, to agree or reject (in whole or in part) an increase request. If, following an allocation process set for the Super Senior Revolving Credit Facility, the amount of the increased commitments of the existing lenders under the Super Senior Revolving Credit Facility is less than requested by the Company, the Company may (through the Agent) then request any existing lender under the Senior Revolving Credit Facility which is willing to do so (or another bank or financial institution which is not an existing lender and which is willing to do so) to (additionally) further increase its commitment by such amount notified to it, or part thereof, (or, as the case may be, accede to the Super Senior Revolving Credit Facility as a lender with such new commitment), subject to certain conditions set forth in the Super Senior Revolving Credit Facility.

Ancillary Facilities

A lender (or any of its affiliates) may make available to a borrower under the Super Senior Revolving Credit Facility all or part of that lender's undrawn commitment in the Super Senior Revolving Credit Facility by way of ancillary facilities such as overdraft facilities, guarantees, bonding, documentary or stand-by letter of credit facilities, short-term loan facilities, foreign exchange facilities or any other facility or accommodation required in connection with the business of the Group and which is agreed between the Company and the relevant lender (or its affiliate), other than derivative or other transactions where the potential loss may be greater than the relevant Ancillary Lender's commitments under the Ancillary Facility plus customary interest and fees, subject to the satisfaction of certain conditions precedent.

Repayments and prepayments

The Super Senior Revolving Credit Facility will terminate on the earlier of (a) the sixth anniversary of the "Effective Date" (as defined in the SSRCF Amendment and Restatement Agreement) and (b) March 31, 2024 (the "**Final SSRCF Maturity Date**") and any amounts still outstanding at such date will be immediately due and payable. As discussed in more detail above, we currently expect the Effective Date under the SSRCF Amendment and Restatement Agreement to occur on or around the issue date of the New Notes.

Subject to certain conditions, we may voluntarily prepay our utilizations and/or permanently cancel all or part of the available commitments under the Super Senior Revolving Credit Facility by giving three business days' prior notice to the Agent (provided that such prepayment or cancellation must be, if in part, in a minimum amount of €1 million) or the remainder if the outstanding loan or the remaining commitments are less than €1 million.

Amounts prepaid or repaid may (subject to the terms of the Super Senior Revolving Credit Facility) be re-borrowed.

In addition to voluntary prepayments, the Super Senior Revolving Credit Facility requires mandatory cancellation and, if applicable, prepayment in full or in part in certain circumstances, including:

- with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Super Senior Revolving Credit Facility; and

- under the circumstances described under the second bullet under "*−Purchase Condition*" below.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Company shall give notice to the Agent describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation under the loans on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**"), but no later than the respective change of control offer for any of the Senior Secured Debt (as defined below). Pursuant to the Change of Control Offer, each lender will have the right to require the original borrowers to repay such lender's participation in any loans together with accrued and unpaid interest and any additional amounts accrued under the finance documents in respect of any such participation in any such loans on the Change of Control Repayment Date, whereupon the commitment of that lender will be cancelled.

"**Change of Control**" means the occurrence of the following:

(i) for as long as no Public Market exists for the Capital Stock of the Company (or a Holding Company), the Company becoming aware of any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Holder acquiring and holding, directly or indirectly, the control over more than 50% of the issued and outstanding Voting Stock of the Company measured by voting power rather than number of shares;

(ii) at any time that a Public Market exists for the Capital Stock of the Company (or a Holding Company), the Company becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Holder acquiring and holding, directly or indirectly, the control over more than 30% of the issued and outstanding Voting Stock of the Company measured by voting power rather than number of shares and (ii) Permitted Holders holding, directly or indirectly, the control over fewer of the issued and outstanding Voting Stock of the Company measured by voting power rather than number of shares than such other person or group;

(iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Company and its Restricted Subsidiaries taken as a whole to a Person other than a Permitted Holder; or

(iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of assets of the Company.

"**Senior Secured Debt**" means the aggregate principal amount outstanding, from time to time, under the Senior Secured Notes, the New Notes, any borrowings under the Existing Senior Secured Facilities and any other liabilities of the Company or the Guarantors in respect of any loan, credit or guarantee facility, notes, indenture or security that rank equally in right of payment with the liabilities under the Senior Secured Notes , the New Notes and the Existing Senior Secured Facilities, as applicable, and which are permitted to be incurred under the terms of the Super Senior Revolving Credit Facility and are permitted under the terms of the Intercreditor Agreement to share (and do share) in the Collateral on an equal and rateable basis as the creditors in relation to the Senior Secured Notes, the New Notes and Existing Senior Secured Facilities.

Interest and Fees

The Super Senior Revolving Credit Facility bears interest at a rate per annum equal to EURIBOR, LIBOR, WIBOR, PRIBOR or BUBOR, as applicable, plus a margin of 2.00% per annum.

We are also required to pay a commitment fee in arrears at the end of each calendar quarter during the availability period, on available but unused commitments under the Super Senior Revolving Credit Facility at a rate of 35% of the applicable margin under the Super Senior Revolving Credit Facility. From December 21, 2017 until and including the Effective Date under the SSRCF Amendment and Restatement Agreement, the requirement for us to pay a commitment fee is suspended. Instead, we are required to pay a ticking fee to the Agent (for the account of each existing lender and each new lender) in arrears at the end of each calendar quarter at the same rate as the commitment fee.

We are also required to pay fees related to the issuance of ancillary facilities and certain fees to the arrangers, the Agent and the Security Agent in connection with the Super Senior Revolving Credit Facility.

Security and Guarantees

The Super Senior Revolving Credit Facility is being guaranteed irrevocably and unconditionally, subject to certain customary limitations and agreed security principles, on a joint and several basis, by the Company, Prowell GmbH, PROLOGISTIK GmbH, Proservice GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell s.r.o., Prowell sp. z o.o. and Prowell Ltd. (the "**Guarantors**").

The Super Senior Revolving Credit Facility also provides that (subject to certain customary limitations and agreed security principles):

- as at December 31 of each year (the "**Accounting Reference Date**"), the aggregate EBITDA of the Company and the Guarantors (calculated on the same basis as Consolidated EBITDA (as defined in the conditions of issue of the Senior Secured Notes), eliminating the effects of all intra-Group transactions and provided that the EBITDA of any entity that is negative shall be deemed to be zero, must represent at least 80% of the Consolidated EBITDA of the Group (with the EBITDA of any entity that is negative deemed to be zero) determined annually on the basis of the relevant financial statements of the members of the Group (the "**Guarantor Coverage Test**"); provided that no breach of the Guarantor Coverage Test shall occur if within 120 days of the delivery of the audited consolidated financial statements of the Company for the financial year ended on the relevant Accounting Reference Date to the Agent the Company procures, subject to agreed security principles, that additional Restricted Subsidiaries become Guarantors such that if they had been Guarantors on the relevant Accounting Reference Date, the Guarantor Coverage Test would have been satisfied.; and

- (i) any wholly-owned member of the Group that holds shares in an obligor (other than the Company) and (ii) a member of the Group (other than the Company) that has EBITDA (calculated on same basis as Consolidated EBITDA representing 10% or more of Consolidated EBITDA or has total assets or sales representing 10% or more of the total assets or sales of the Group (in each case, after elimination of any effects of any intra-Group transactions) must become a guarantor under the Super Senior Revolving Credit Facility and grant security as the Agent may require (subject to customary limitations and agreed security principles), within 120 days.

Covenants

The Super Senior Revolving Credit Facility contains customary information and general loan style covenants and will also include restrictive covenants that, following effectiveness of the 2018 Amendment Agreements, will closely track those that will be contained in the conditions of issue of the New Notes. The Super Senior Revolving Credit Facility also requires the Company to monitor each member of the Group's financial and operating performance and to ensure that the Company is in compliance with the Interest Coverage Ratio (as defined below) in respect of any period of twelve months ending on a quarter-end date (a "**Testing Period**") during any time during which the aggregate base currency amount of all utilizations (in certain circumstances taking into account proposed utilizations) and cash ancillary outstandings under the Super Senior Revolving Credit Facility will be equal to or greater than 40 per cent. of the total commitments thereunder (a "**Trigger Period**").

"**Interest Coverage Ratio**" in respect of any Testing Period, means the ratio of (i) the aggregate amount of Consolidated EBITDA for such Testing Period to (ii) the aggregate amount of the Consolidated Net Interest Expenses of the Group for such Testing Period.

"**Consolidated Net Interest Expenses**" in respect of any Testing Period means the consolidated interest expenses (*Zinsaufwand*) of the Group for such Testing Period, excluding the consolidated interest-like expenses (*zinsähnlicher Aufwand*) of the Group for such Testing Period, after deducting the consolidated interest income (*Zinsertrag*) of the Group for such Testing Period.

The financial covenant relating to the "Interest Coverage Ratio" will be tested on quarterly test dates as long as a Trigger Period is continuing.

Interest Cover

While a Trigger Period has occurred and is continuing, the Interest Coverage Ratio shall not be less than 3.50:1, provided that, for a maximum of four times during the life of the facilities under the Super Senior Revolving Credit Facility, a breach of Interest Coverage Ratio covenant shall only constitute a default under the Super Senior Revolving Credit Facility if it is not complied with in respect of two successive Testing Periods.

Purchase Condition

The Super Senior Revolving Credit Facility only allows members of the Group to repay, purchase, defease or redeem (or otherwise retire for value) or acquire any Senior Secured Debt (as described under "*—Repayments and Prepayments*" above) prior to its stated maturity (or offer to do so) if either:

- such purchase being funded, directly or indirectly, with the proceeds of any Refinancing Indebtedness (as defined in the conditions of issue of the Senior Secured Notes) or the proceeds of a sale of Capital Stock (as defined in the conditions of issue of the Senior Secured Notes) of the Company, Subordinated Shareholder Debt (as defined in the conditions of issue of the Senior Secured Notes) or a contribution to the equity of the Company (other than by a subsidiary of the Company) in accordance with the restrictive covenants under the Super Senior Revolving Credit Facility (which closely track those that are intended to be contained in the conditions of issue of the New Notes;

- at the same time as the relevant purchase, the Company permanently cancels the total commitments and, if applicable, permanently prepays any utilizations in the same proportion as the amount of the purchase bears to the aggregate principal amount of the Senior Secured Floating Rate Notes and any borrowings under the Existing Senior Secured Facilities outstanding on the Effective Date under the SSRCF Amendment and Restatement Agreement, provided that the Company shall only be required to cancel any commitments and prepay any utilizations in connection with any purchase until the total commitments (as so reduced) are equal to 40 percent of the total commitments under the Super Senior Revolving Credit Facility (after taking into account any prior increases as described under "*—Increase Option*" above;

- the Interest Coverage Ratio for the last Testing Period ending immediately prior to the date on which such purchase is contractually committed is equal to or higher than 3.50:1 after giving *pro forma* effect to the relevant purchase and any Indebtedness incurred to fund such purchase;

- such purchase is made following the occurrence of a Change of Control and the Company has fully complied with its obligations in relation to such Change of Control as set out under "*−Repayments and Prepayments*" above prior to any such purchase; or

- following the completion of the purchase, Senior Secured Debt (as described under "*−Repayments and Prepayments*" above) with an aggregate principal amount equal to 50% or more of the aggregate principal amount of the Senior Secured Floating Rate Notes, the New Notes and any borrowings under the Existing Senior Secured Facilities outstanding on the Effective Date under the SSRCF Amendment and Restatement Agreement will remain outstanding,

unless, in each case, a default is continuing or would result from the purchase.

Events of Default

The Super Senior Revolving Credit Facility contains customary events of default (subject in certain cases to agreed grace periods, thresholds and other qualifications) including, a cross default (including with respect to an event of default under, and as defined in, the conditions of issue of the Senior Secured Notes), non-payment, misrepresentation, breach of covenant, insolvency and insolvency proceedings, unlawfulness, litigation and material adverse change the occurrence of which would allow the Agent (who shall do so if directed by the required majority of the lenders) to accelerate all or part of the outstanding utilizations and/or terminate the commitments and/or declare all or part of the utilizations payable on demand and/or declare that cash cover in respect of ancillary facilities is immediately due and payable and/or exercise any of its rights and remedies under the Super Senior Revolving Credit Facility and other related finance documents.

Governing law

The Super Senior Revolving Credit Facility and any non-contractual obligations arising out of or in connection with it are governed by and construed and enforced in accordance with German law.

AMENDED AND RESTATED SENIOR SECURED PLN FACILITIES

On December 1, 2015, Prowell sp. z o.o., as borrower, the Company and the then-existing Guarantors, as guarantors, entered into a PLN-denominated senior secured facility agreement (the "**2015 Senior Secured PLN Facility**") with Commerzbank Aktiengesellschaft as facility agent, arranger and original lender. The 2015 Senior Secured PLN Facility provided for PLN 107 million of committed credit that Prowell sp. z o.o. could draw as an amortizing term loan until March 31, 2016 (the "**2015 Senior Secured PLN Facility Availability Period**"). As of the date of this annual report, PLN 85.6 million in borrowings under the 2015 Senior Secured PLN Facility remained outstanding. The borrowings under the 2015 Senior Secured PLN Facility were used for the partial repayment of a then-existing intra-group loan between Prowell GmbH as lender and Prowell sp. z o.o. and the payment of related transaction costs.

In addition, on May 31, 2016, Prowell sp. z o.o., as borrower, the Company and the Guarantors, as guarantors, entered into another PLN-denominated senior secured facility agreement (the "**2016 Senior Secured PLN Facility**" and together with the 2015 Senior Secured PLN Facility, the "**Senior Secured PLN Facilities**") with Commerzbank Aktiengesellschaft as facility agent, arranger and original lender to fund the establishment of our corrugated board production site (PW10) in Trzcinica, Poland. The 2016 Senior Secured PLN Facility also provides for PLN 107 million of committed credit that Prowell sp. z o.o. is required to fully draw as an amortizing term loan until May 31, 2017 (the "**2016 Senior Secured PLN Facility Availability Period**"). As of the date of this annual report, PLN 92.0 million in borrowings under the 2016 Senior Secured Facility remained outstanding.

On December 21, 2017, we entered into separate amendment and restatement agreements relating to the Senior Senior Secured PLN Facilities (each a "**PLN Facility Amendment and Restatement Agreement**"). Pursuant to the terms of the PLN Amendment and Restatement Agreements, the Senior Secured PLN Facilities will be amended and restated in their entirety with effect from (and including) the Effective Date (as defined in each PLN Facility Amendment and Restatement Agreement). The "**Effective Date**" under each PLN Facility Amendment and Restatement Agreement will be the date on which the relevant agent under each Senior Secured PLN Facility notifies the Company and Commerzbank Aktiengesellschaft that all relevant conditions precedent under the relevant PLN Facility Amendment and Restatement Agreement are satisfied. We expect to satisfy all remaining conditions precedent and, therefore, the Effective Date under the PLN Facility Amendment and Restatement Agreement to occur, on or around the issue date of the New Notes. In order to align the restrictive covenants in the covenant schedule of each Senior Secured PLN Facility with the relevant

restrictive covenants to be contained in the conditions of issue of the New Notes, on or prior to the issue date of the New Notes, we furthermore intend to cancel and replace the PLN Facility Amendment and Restatement Agreements by certain separate new amendment and restatement agreements (the "**2018 PLN Facility Amendment and Restatement Agreements**"). In addition, the 2018 PLN Facility Amendment and Restatement Agreements will provide for a cashless conversion and re-borrowing under each Senior Secured PLN Facility. Apart from that, the provisions included in the 2018 PLN Facility Amendment and Restatement Agreements will follow the PLN Facility Amendment and Restatement Agreements. The following descriptions of certain provisions of the Senior Secured PLN Facilities therefore summarize the relevant provisions of the Senior Secured PLN Facilities as amended and restated by the 2018 PLN Facility Amendment and Restatement Agreements, as so further amended.

In addition to amending and restating the covenant schedule of each Senior Secured PLN Facility, the 2018 PLN Facility Amendment and Restatement Agreements will also affect various technical amendments and improvements. In each 2018 PLN Facility Amendment and Restatement Agreement, Commerzbank Aktiengesellschaft, as lender under each Senior Secured PLN Facility, will further consent to the release of any security interests over insurance receivables and intra-group receivables granted by the Company and the Guarantors, upon the release and discharge (other than as a result of an enforcement action) of any and all Liens (other than Permitted Liens) over such assets, so long as no event of default exists at such time or would arise as a result of such release.

Repayments and prepayments

The 2015 Senior Secured PLN Facility has a six year term and the 2016 Senior Secured Facility has a five year team, each with a final maturity date of December 31, 2021 (the "**Final PLN Facility Maturity Date**").

Following an initial year of no repayments, Prowell sp. z. o.o. is required to repay the PLN 107 million in borrowing under the 2015 Senior Secured Credit Facility in 20 equal, quarterly installments, commencing on March 31, 2017 and ending on the Final PLN Facility Maturity Date.

Prowell sp. z. o.o. is required to repay the PLN 107 million in borrowings it is required to draw under the 2016 Senior Secured PLN Facility by the end of the 2016 Senior Secured PLN Facility Availability Period by repaying on each repayment date an amount which reduces the amount of the aggregate borrowings outstanding under the 2016 Senior Secured PLN Facility by an amount as set out in the following table:

Repayment Date	Repayment Installment in PLN	Repayment Date	Repayment Installment in PLN
June 30, 2017	5,000,000	December 31, 2019	4,000,000
September 30, 2017	5,000,000	March 31, 2020	5,500,000
December 31, 2017	5,000,000	June 30, 2020	5,500,000
March 31, 2018	3,000,000	September 30, 2020	5,500,000
June 30, 2018	3,000,000	December 31, 2020	5,500,000
September 30, 2018	3,000,000	March 31, 2021	10,500,000
December 31, 2018	3,000,000	June 30, 2021	10,500,000
March 31, 2019	4,000,000	September 30, 2021	10,500,000
June 30, 2019	4,000,000	Final PLN Facility Maturity Date	The remaining outstanding amount
September 30, 2019	4,000,000		

At any time on or after December 1, 2018 (in case of the 2015 Senior Secured PLN Facility) and May 31, 2019 (in case of the 2016 Senior Secured PLN Facility), Prowell sp. z o.o. may voluntarily prepay the whole or part of the loan outstanding under the relevant Senior Secured PLN Facility by giving five business days' prior notice to the agent (but if in part, being an amount that reduces the amount of the loan by a minimum of PLN 5 million or the remainder if the outstanding loan is less than PLN 5 million).

In addition to voluntary prepayments, each Senior Secured PLN Facility requires mandatory cancellation and, if applicable, prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the relevant Senior Secured PLN Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Company shall give notice to the agent under each Senior Secured PLN Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation under the Senior Secured PLN Facilities in the loans and to cancel each lender's commitment on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**") but no later than the respective change of control offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Senior Secured PLN Facilities will have the right to require Prowell sp. z o.o. to prepay all or any part of the principal amount of such lender's participation in the loans at a prepayment price in cash

equal to (i) if the Change of Control occurs on or prior to December 31, 2020, 104.35% of the aggregate principal amount of such lender's participation in the loans; or (ii) if the Change of Control occurs after December 31, 2020, the aggregate principal amount of such lender's participation in the loans plus an indemnity for early repayment (*Vorfälligkeitsentschädigung*) determined by each lender in accordance with applicable law and jurisprudence, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents, if any to but excluding the Change of Control Repayment Date, whereupon the commitment of that lender will be cancelled.

"**Change of Control**", for purposes of the Senior Secured PLN Facilities, means the occurrence of the following:

(i) for as long as no public market exists for the capital stock of the Company (or a holding company), the Company becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Company measured by voting power rather than number of shares;

(ii) at any time that a public market exists for the capital stock of the Company (or a holding company), the Company becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Company measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Company measured by voting power rather than number of shares than such other person or group;

(iii) the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Company and its restricted Subsidiaries taken as a whole to a person other than a permitted shareholder;

(iv) the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Company; or

(v) the Company ceases to hold (directly or indirectly) 100% of the shares in Prowell sp. z o.o.

Interest and Fees

The 2015 Senior Secured PLN Facility bears interest at a fixed rate of 4.27% per annum, and the 2016 Senior Secured PLN Facility bears interest at a fixed rate of 3.90% per annum.

Prowell sp. z o.o. was also required to pay a commitment fee in arrears at the end of each calendar quarter at a rate of 0.75% per annum with regard to any available but unused commitments under the 2016 Senior Secured PLN Facility during the period starting on July 11, 2016 until the last day of the 2016 Senior Secured PLN Facility Availability Period.

Prowell sp. z o.o. also paid upfront fees of €25,000 to Commerzbank Aktiengesellschaft, as arranger in connection with each Senior Secured PLN Facility.

Security and Guarantees

The Senior Secured PLN Facilities are being guaranteed irrevocably and unconditionally, subject to certain customary limitations and agreed security principles, on a joint and several basis, by the Company and the Guarantors.

Commerzbank Aktiengesellschaft, as agent and original lender under the Senior Secured PLN Facilities, has acceded to the Intercreditor Agreement, and any amounts outstanding under the Senior Secured PLN Facilities are secured by the same Collateral that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Senior Secured EUR Facility, the Senior Secured GBP Facility, the Senior Secured Notes and, upon issuance of the New Notes, the New Notes.

Covenants

The Senior Secured PLN Facilities contain customary information and general loan style covenants and will also include restrictive covenants that will, following effectiveness of the 2018 Amendment Agreements, closely track those that will be contained in the conditions of issue of the New Notes.

Events of Default

The Senior Secured PLN Facilities contain customary events of default (subject in certain cases to agreed grace periods, thresholds and other qualifications) including, a cross default (including with respect to an event of default under, and as defined in, the conditions of issue of the Senior Secured Notes), non-payment, misrepresentation, insolvency and insolvency proceedings, unlawfulness, litigation and material adverse change the occurrence of which would allow the agent under the Senior Secured PLN Facilities (who shall do so if directed by the required majority of the lenders) to accelerate all or part of the loan outstanding and/or terminate any available commitments and/or exercise any of its rights and remedies under the Senior Secured PLN Facilities and other related finance documents.

Governing law

The Senior Secured PLN Facilities and any non-contractual obligations arising out of or in connection with it are governed by and construed and enforced in accordance with German law.

SENIOR SECURED EUR FACILITY

On December 21, 2017, the Company, as company and borrower, Prowell GmbH and the other Guarantors as guarantors, entered into a euro-denominated senior secured facility agreement (the "**Senior Secured EUR Facility**") with IKB Deutsche Industriebank AG as agent and original lender. The Senior Secured EUR Facility provides for €38,500,000 of total committed credit, including (i) a €8.5 million term loan facility ("**Facility A**") and (ii) a €30.0 million term loan facility ("**Facility B**"). Both Facility A and Facility B are refinanced by funds made available by Kreditanstalt für Wiederaufbau ("**KfW**"), the German government-owned development bank, under certain KfW programs that offer subsidized funding for eligible investments that promote energy efficiency. Both Facility A and Facility B may be drawn by the Company as amortizing term loans until (i) October 4, 2018, in the case of Facility A and (ii) November 30, 2018, in the case of Facility B.

The utilization of the Senior Secured EUR Facility is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the New Notes. As a result, the Senior Secured EUR Facility remains currently undrawn. On or prior to the issue date of the New Notes, we intend to further amend the Senior Secured EUR Facility so that the restrictive covenants in the covenant schedule of each Senior Secured EUR Facility will closely track the relevant restrictive covenants contained in the conditions of issue of the New Notes.

Borrowings under the Senior Secured EUR Facility may be used (i) to fund the proposed installation of a waste heat system for our paper machine (PM1) in Burg, Germany, in the case of the Facility A, and (ii) to fund certain eligible investments in connection with the proposed establishment our new corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom, in the case of the Facility B.

Repayments and prepayments

The Facility A has a final maturity date of September 30, 2027, and the Facility B has a final maturity date of December 30, 2027.

We will be required to repay any borrowings under the Facility A in instalments by repaying on each Facility A repayment date an amount which reduces the amount of the outstanding borrowings under the Facility A by an amount as set out in the following table:

Facility A Repayment Date	Repayment Installment in EUR	Facility A Repayment Date	Repayment Installment in EUR
December 30, 2019	265,625.00	December 30, 2023	265,625.00
March 31, 2020	265,625.00	March 31, 2024	265,625.00
June 30, 2020	265,625.00	June 30, 2024	265,625.00
September 30, 2020	265,625.00	September 30, 2024	265,625.00
December 30, 2020	265,625.00	December 30, 2024	265,625.00
March 31, 2021	265,625.00	March 31, 2025	265,625.00
June 30, 2021	265,625.00	June 30, 2025	265,625.00
September 30, 2021	265,625.00	September 30, 2025	265,625.00

December 30, 2021	265,625.00	December 30, 2025	265,625.00
March 31, 2022	265,625.00	March 31, 2026	265,625.00
June 30, 2022	265,625.00	June 30, 2026	265,625.00
September 30, 2022	265,625.00	September 30, 2026	265,625.00
December 30, 2022	265,625.00	December 30, 2026	265,625.00
March 31, 2023	265,625.00	March 31, 2027	265,625.00
June 30, 2023	265,625.00	June 30, 2027	265,625.00
September 30, 2023	265,625.00	September 30, 2027	265,625.00

We will be required to repay any borrowings under the Facility B in instalments by repaying on each Facility B repayment date an amount which reduces the amount of the outstanding borrowings under the Facility B by an amount as set out in the following table:

Facility B Repayment Date	Repayment Installment in EUR	Facility B Repayment Date	Repayment Installment in EUR
March 31, 2020	937,500.00	March 31, 2024	937,500.00
June 30, 2020	937,500.00	June 30, 2024	937,500.00
September 30, 2020	937,500.00	September 30, 2024	937,500.00
December 30, 2020	937,500.00	December 30, 2024	937,500.00
March 31, 2021	937,500.00	March 31, 2025	937,500.00
June 30, 2021	937,500.00	June 30, 2025	937,500.00
September 30, 2021	937,500.00	September 30, 2025	937,500.00
December 30, 2021	937,500.00	December 30, 2025	937,500.00
March 31, 2022	937,500.00	March 31, 2026	937,500.00
June 30, 2022	937,500.00	June 30, 2026	937,500.00
September 30, 2022	937,500.00	September 30, 2026	937,500.00
December 30, 2022	937,500.00	December 31, 2026	937,500.00
March 31, 2023	937,500.00	March 31, 2027	937,500.00
June 30, 2023	937,500.00	June 30, 2027	937,500.00
September 30, 2023	937,500.00	September 30, 2027	937,500.00
December 30, 2023	937,500.00	December 31, 2027	937,500.00

If the Facility A and/or the Facility B is not utilized in full at the end of the relevant availability period the relevant repayment instalments will, subject to the consent of KfW, be reduced pro rata. Should KfW withhold such consent, any unutilized amounts will be deducted from the relevant repayment instalments of the relevant facility in inverse chronological order, i.e. beginning with the repayment instalment for the last repayment date. In this case, the final maturity date of the relevant facility will be deemed to be the last repayment date on which a repayment instalment (or any part of it) remains to be made.

Under the terms of the Senior Secured EUR Facility, we may apply for a repayment grant (*Tilgungszuschuss*) of up to €1,344,600 funded from resources of the German Ministry of Economics and Technology (*BMWi*) on the repayment of all amounts borrowed under the Facility A (the "**KfW Repayment Grant**"). The amounts of the KfW Repayment Grant, if granted, would be offset against the Facility A repayment instalments falling due after the date on which the KfW Repayment Grant is granted. According to the conditions applicable to the KfW Repayment Grant, we may only become entitled to the KfW Repayment Grant if, among other things: (i) KfW has received (via the Agent), in form and substance satisfactory to it, a use of funds certificate together with the relevant application promptly after the investment funded by the Facility A has been made, but in any event no later than the earlier of (i) the day falling nine (9) Months after Facility A has been utilized in full or (ii) July 1, 2019; and (ii)we have provided to KfW (via the Agent) the agreed upon waste heat concept (*Abwärmekonzept*) and a confirmation that we will provide to the German Ministry of Economics and Technology (or a third party appointed by the German Ministry of Economics and Technology) for such purpose any information and data in connection with the use of the funds for the investment funded by the Facility A required in order to conduct an anonymised scientific analysis. If and to the extent the KfW Repayment Grant is awarded, the amounts granted thereunder will be offset against the Facility A repayment instalments in inverse chronological order, i.e. beginning with the repayment instalment for the last Facility A repayment date.

Subject to the payment of break costs, we may voluntarily prepay the whole or any part of any loan outstanding under the Senior Secured EUR Facility by giving ten business days' prior notice to the agent (but if in part, being an amount that reduces the amount of such loan by a minimum amount of EUR 5 million or the remainder).

In addition to voluntary prepayments, the Senior Secured EUR Facility requires mandatory cancellation and, if applicable prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Senior Secured EUR Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Company shall give notice to the agent under the Senior Secured EUR Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation in any loans under the Senior Secured EUR Facility in the loans on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**") but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Senior Secured EUR Facility will have the right to require us to prepay all or any part of the principal amount of such lender's participation in the loans plus break costs determined by each lender in accordance with applicable law and jurisprudence, at least in an amount requested from such lender by KfW, plus, in each case, accrued and unpaid interest, and any additional amounts accrued under the finance documents.

"**Change of Control**", for purposes of the Senior Secured EUR Facility, means the occurrence of the following:

- for as long as no public market exists for the capital stock of the Company (or a holding company), the Company becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Company measured by voting power rather than number of shares;

- at any time that a public market exists for the capital stock of the company (or a holding company), the Company becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Company measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Company measured by voting power rather than number of shares than such other person or group;

- the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Company and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder; or

- the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Company.

Interest and Fees

The Senior Secured EUR Facility bears interest at a fixed rate of 2.45% per annum.

We are also required to pay a commitment fee in arrears on each March 31, June 30, September 30 and December 30 at a rate of 0.25% per month with regard to any available but unused commitments during the period starting on the date falling one day after (i) with respect to commitments in relation to the Facility A, October 4, 2018; and (ii) with respect to commitments in relation to the Facility B, November 30, 2018, until the last day of the relevant availability period.

Security and Guarantees

The Senior Secured EUR Facility is being guaranteed irrevocably and unconditionally, subject to certain customary limitations and agreed security principles, on a joint and several basis, by the Company and the Guarantors.

It is a condition precedent to the utilization of the Senior Secured EUR Facility, that IKB Deutsche Industriebank AG, as agent and original lender under the Senior Secured EUR Facility, delivers a signed accession letter to the Intercreditor Agreement to the Security Agent and that the Security Agent accepts and countersigns such accession letter, which we expect to occur on or around the issue date of the New Notes. As a result, any amounts outstanding under the Senior Secured EUR Facility will be secured by the same Collateral that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured GBP Facility, the Senior Secured Notes and, upon issuance of the New Notes, the New Notes.

Covenants

The Senior Secured EUR Facility contains customary information and general loan style covenants and also includes restrictive covenants that, following effectiveness of the 2018 Amendment Agreements, will closely track those contained in the conditions of issue of the New Notes. In addition, we will be required submit to KfW, via the agent under the Senior Secured EUR Facility, certain use of funds certificates (*Verwendungsnachweise*), providing evidence that we have made use of the funds borrowed under the Facility A and the Facility B, as applicable, in accordance with the specified purpose described above and relevant KfW program rules. Furthermore, we are required to procure that the investment measures implemented with the borrowings under the Facility A are operated in accordance with their designated purpose for a period of at least five (5) years (the "**Minimum Operating Period**"), and during the Minimum Operating Period, no part of the relevant investments may, subject to the principle of proportionality, be abandoned or sold-off (unless the further operation in accordance with the designated purpose is safeguarded).

Events of Default

The Senior Secured EUR Facility contains customary events of default (subject in certain cases to agreed grace periods, thresholds and other qualifications) including, a cross default, non-payment, misrepresentation, insolvency, insolvency proceedings, unlawfulness, litigation and material adverse change, the occurrence of which would allow the agent under the Senior Secured EUR Facility (who shall do so if directed by the required majority of the lenders) to accelerate all or part of the loan outstanding and/or terminate any available commitments and/or exercise any of its rights and remedies under the Senior Secured EUR Facility and other related finance documents. In addition, the general terms and conditions of KfW, which are incorporated by reference into the Senior Secured EUR Facility, also contain certain bespoke termination rights related to the quasi-governmental nature of the subsidized funding provided by KfW, through IKB Deutsche Industriebank AG, under the Senior Secured EUR Facility.

Application of KfW General Terms and Condition

In addition to the terms set forth in the Senior Secured EUR Facility, our relationship with the lenders under the Senior Secured Credit Facility is also governed by the general terms and conditions of KfW, which are incorporated into the Senior Secured EUR Facility by reference. In case of any conflict between the provisions of the Senior Secured EUR Facility and the general terms and conditions of KfW, the provisions of the general terms and conditions of KfW will prevail.

Governing Law

The Senior Secured EUR Facility and any non-contractual obligations arising out of or in connection with it are governed by and construed and enforced in accordance with German law.

SENIOR SECURED GBP FACILITY

On December 21, 2017, the Company, as company and guarantor, Prowell Ltd. as borrower and guarantor, and the other Guarantors, as guarantors, entered into a GBP-denominated senior secured facility agreement (the "**Senior Secured GBP Facility**") with Goldman Sachs Bank USA, as original lender, and Goldman Sachs Lending Partners LLC, as agent. The Senior Secured GBP Facility provides for GBP 70,000,000 of committed credit that may be drawn by Prowell Ltd. as a non-amortizing term loan until May 31, 2019.

The utilization of the Senior Secured GBP Facility is subject to certain conditions precedent. We expect to satisfy all remaining conditions precedent on or around the issue date of the New Notes. As a result, the Senior Secured GBP Facility remains currently undrawn. On or prior to the issue date of the New Notes, we intend to further amend the Senior Secured GBP Facility so that the restrictive covenants in the covenant schedule of each Senior Secured GBP Facility will closely track the relevant restrictive covenants contained in the conditions of issue of the New Notes.

Borrowings under the Senior Secured GBP Facility may be used for (i) the partial refinancing of the PIK Toggle Notes and/or Senior Secured Fixed Rate Notes; (ii) any minority shareholder payments required in connection with the foregoing; (iii) refinancing investments or costs in connection with the establishment and/or start-up of our proposed corrugated board "mega plant" (PW12) in Ellesmere Port, United Kingdom; (iv) any transaction costs related to any of the foregoing; and (v) towards the repayment of certain intra-group loans granted by the Company which shall use such proceeds for the purpose of the foregoing clauses (i) through (iv).

Repayments and prepayments

The Senior Secured GBP Facility has a final maturity date of June 30, 2025, at which date Prowell Ltd. will be required to repay the aggregate loans under the Senior Secured GBP Facility in full.

Prowell Ltd. may voluntarily prepay the whole or any part of the loan made available to it under the Senior Secured GBP Facility by giving five business days' notice (or such shorter period as the majority lenders may agree) to the agent (but if in part, being an amount that reduces the amount of the loan by a minimum of GBP 1 million or the remainder if the outstanding loan is less than GBP 1 million).

In addition to voluntary prepayments, the Senior Secured GBP Facility requires mandatory cancellation and, if applicable, prepayment in full with respect to any lender, if it becomes unlawful for such lender to perform any of its obligations under the Senior Secured GBP Facility.

Furthermore, upon the occurrence of a Change of Control (as defined below), the Company shall give notice to the agent under the Senior Secured GBP Facility describing the transaction or transactions that constituted the Change of Control and offer to repay each lender's participation in any loans under the Senior Secured GBP Facility in the loans and to cancel each lender's commitment on the date specified in such notice (the "**Change of Control Offer**") which date shall be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the "**Change of Control Repayment Date**") but no later than the respective Change of Control Offer for any of the other senior secured debt. Pursuant to the Change of Control Offer, each lender under the Senior Secured GBP Facility will have the right to require Prowell Ltd. to prepay such lender's participation in the loans together with accrued and unpaid interest and any additional amounts accrued under the finance documents in respect of any such participation in any such loans on the Change of Control Prepayment Date, whereupon the commitment of that lender will be cancelled.

"**Change of Control**", for purposes of the Senior Secured GBP Facility, means the occurrence of the following:

- for as long as no public market exists for the capital stock of the Company (or a holding company), the Company becoming aware of any person or group of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a Permitted Shareholder acquiring and holding, directly or indirectly, the control over more than 50% issued and outstanding voting stock of the Company measured by voting power rather than number of shares;

- at any time that a public market exists for the capital stock of the company (or a holding company), the Company becoming aware of (i) any "person" or "group" of persons acting in concert in the meaning given to such term in Section 2(5) of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) other than a permitted shareholder acquiring and holding, directly or indirectly, the control over more than 30% issued and outstanding voting stock of the Company measured by voting power rather than number of shares and (ii) permitted shareholders holding, directly or indirectly, the control over fewer of the issued and outstanding voting stock of the Company measured by voting power rather than number of shares than such other person or group;

- the sale, lease, transfer, conveyance or other disposition (other than by way of merger, or consolidation or other business combination transaction), in one or a series of related transactions, of all or substantially all of the assets of the Company and its restricted subsidiaries taken as a whole to a person other than a permitted shareholder;

- the adoption of a plan relating to the liquidation, winding up or other disposition of all or substantially all of the assets of the Company; or

- the Company ceases to hold (directly or indirectly) 100% of the shares in Prowell Ltd.

Interest and Fees

The Senior Secured GBP Facility bears interest at a rate per annum equal to LIBOR plus a margin of 3.00% per annum.

Security and Guarantees

The Senior Secured GBP Facility is being guaranteed irrevocably and unconditionally, subject to certain customary limitations and agreed security principles, on a joint and several basis, by the Company and the Guarantors.

It is a condition precedent to the utilization of the Senior Secured GBP Facility, that Goldman Sachs Lending Partners LLC, as agent and on behalf of the original lender under the Senior Secured EUR Facility, delivers a signed accession letter to the Intercreditor Agreement to the Security Agent and that the Security Agent accepts and countersigns such accession letter, which we expect to occur on or around the issue date of the New Notes. As a result, any amounts outstanding under the Senior Secured GBP Facility will be secured by the same Collateral that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured EUR Facility, the Senior Secured Notes and, upon issuance of the New Notes, the New Notes.

We expect that Goldman Sachs Lending Partners LLC, as agent under the Senior Secured GBP Facility and on behalf of the lenders under the Senior Secured GBP Facility, will accede to the Intercreditor Agreement on or around the issue date of the New Notes. As a result, any amounts outstanding under the Senior Secured GBP Facility will be secured by the same Collateral that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Senior Secured PLN Facilities, the Senior Secured EUR Facility, the Senior Secured Notes and, upon issuance of the New Notes, the New Notes.

Covenants

The Senior Secured GBP Facility contains customary information and general loan style covenants and also includes restrictive covenants that, following effectiveness of the 2018 Amendment Agreements, will closely track those contained in the conditions of issue of the New Notes.

Events of Default

The Senior Secured GBP Facility contains customary events of default (subject in certain cases to agreed grace periods, thresholds and other qualifications) including, a cross default, non-payment, misrepresentation, insolvency, insolvency proceedings, unlawfulness, litigation and material adverse change, the occurrence of which would allow the agent under the Senior Secured GBP Facility (who shall do so if directed by the required majority of the lenders) to accelerate all or part of the loan outstanding and/or terminate any available commitments and/or exercise any of its rights and remedies under the Senior Secured GBP Facility and other related finance documents.

Governing Law

The Senior Secured GBP Facility and any non-contractual obligations arising out of or in connection with it are governed by and construed and enforced in accordance with German law.

AMENDED AND RESTATED INTERCREDITOR AGREEMENT

In connection with the 2015 Refinancing, the Company, the Guarantors (other than Propower GmbH, which acceded to the Intercreditor Agreement on January 4, 2016 in connection with the completion of the CHP Acquisition), JH-Holding, the holders' representative for our then-outstanding senior secured notes, the Security Agent, the agent and the lenders under the Super Senior Revolving Credit Facility and others entered into an intercreditor agreement (as amended and/or restated from time to time, the "**Intercreditor Agreement**") to govern the relationships and relative priorities among (i) the creditors under the Super Senior Revolving Credit Facility; (ii) the holders of our then-outstanding senior secured notes; (iii) future hedge counterparties under certain hedging agreements (the "**Hedge Counterparties**"); (iv) future cash management providers, (v) certain future creditors of the Group that may accede to the Intercreditor Agreement from time to time, including the holders of our Senior Secured Floating Rates Notes, the lenders under the Existing Senior Secured Facilities and the holders of the New Notes; (vi) certain intra group creditors and debtors; (vii) various creditor representatives; and (viii) the Security Agent.

The Company, the Guarantors and each of their subsidiaries that incur any liability or provides any guarantee or security under the Super Senior Revolving Credit Facility, the Senior Secured Notes or the Existing Senior Secured Facilities and related documents or any Pari Passu Debt Documents are together referred to in this description as "**Debtors**".

The Intercreditor Agreement provides for accession by certain additional Pari Passu Debt Creditors (as defined below) and/or their representatives. Commerzbank Aktiengesellschaft, as agent under the Senior Secured PLN Facilities and on behalf of the lenders under the Senior Secured PLN Facilities, and Deloitte GmbH Wirtschaftsprüfungsgesellschaft, as holders' representative on behalf of the holders of the Senior Secured Notes, have entered into creditor/creditor representative accession agreements with regard to the Senior Secured PLN Facilities and the Senior Secured Floating Rate Notes, respectively, as contemplated by the Intercreditor Agreement. We expect that Goldman Sachs International and J.P. Morgan Securities plc, as additional lenders under the Super Senior Revolving Credit Facility, Goldman Sachs Lending Partners LLC, as agent under the Senior Secured GBP Facility and on behalf of Goldman Sachs Bank USA, as original lender under the Senior Secured GBP Facility, and IKB Deutsche Industriebank AG, as agent and original lender under the Senior Secured EUR Facility, will accede to the Intercreditor Agreement on or around the issue date of the New Notes. The New Notes will constitute Additional Indebtedness (as defined below) for purposes of the Intercreditor Agreement and will therefore be permitted to share in the transaction security that secures (or will secure, as applicable) the Super Senior Revolving Credit Facility, the Existing Senior Secured Facilities and any other Pari Passu Debt. As a result, holders of the New Notes will have equivalent rights to the holders of the Senior Secured Notes and the lenders under the Existing Senior Secured Facilities under the Intercreditor Agreement and may vote in the same class of creditors as the holders of the Senior Secured Notes and the lenders under the Existing Senior Secured Facilities in respect of enforcement.

Following the completion of the Refinancing, we intend to enter into an amendment and restatement agreement relating to the Intercreditor Agreement. In addition to various technical amendments that will not adversely affect the Holders in any material respect, we intend to amend and restate the definition of "Credit Facility" and related terms in the Intercreditor Agreement to include, in addition to the Super Senior Revolving Credit Facility, certain credit facilities which are permitted by the terms of the Pari Passu Debt Documents (as defined in the Intercreditor Agreement) to share pari passu in the Collateral with the rights and obligation of Credit Facility Lenders (as defined in the Intercreditor Agreement) as provided for in the Intercreditor Agreement, and in respect of which the creditors, facility agent, and arrangers have acceded as Credit Facility Lenders, Credit Facility Agent or Credit Facility Creditors (as the case may be, and each as defined in the Intercreditor Agreement) and which are permitted to receive priority to the Pari Passu Debt Liabilities (as defined below) with respect to the proceeds of any enforcement of the Collateral (such credit facilities, together with the Super Senior Revolving Credit Facility, together the "**Credit Facilities**" and each a "**Credit Facility**"). As a result, the total amount of Indebtedness under a Credit Facility that may be secured by Liens on a super priority basis will increase from up to €50 million to up to €80 million. In addition, we intend to amend and restate the Intercreditor Agreement to increase the Priority Hedging Limit (as defined in the Intercreditor Agreement from up to €35 million to up to €80 million. In the Amendment and Restatement Agreements, the Senior Secured EUR Facility and the Senior Secured GBP Facility, the relevant lenders have already agreed to execute and/or instruct the relevant agent and the Security Agent to execute, at the request of the Company, one or more amendment and restatement agreements to the Intercreditor Agreement so the Intercreditor Agreement will be so amended and restated. Furthermore, the 2018 Facility Amendment Agreements will propose to further amend the Intercreditor Agreement to delete certain parent undertakings. Similarly, the conditions of issue governing the Senior Secured Notes provide, and the conditions of issue that will govern the New Notes will provide, that, at the direction of the Company and without the consent of the relevant holders' representative, the Security Agent or an holder of the Senior Secured Notes or the New Notes, the relevant holders' representative and the Security Agent shall enter into the proposed amendment and restatement to the Intercreditor Agreement. The following description of certain provisions of the Intercreditor Agreement therefore summarizes the relevant provisions of the Intercreditor Agreement as so amended and restated. It does not restate the Intercreditor Agreement in its entirety nor does it describe provisions relating to the rights and obligations of holders of other classes of our debt.

General

The Intercreditor Agreement, among other things, sets out:

- the relative ranking of certain indebtedness of the Debtors;
- when payments can be made in respect of certain indebtedness of the Debtors;
- when enforcement actions can be taken in respect of that indebtedness;
- the terms pursuant to which that indebtedness will be subordinated upon the occurrence of certain insolvency events;
- when enforcement actions can be taken in respect of the transaction security;
- turnover provisions; and
- when the transaction security and guarantees will be released to permit a sale of the collateral.

The Intercreditor Agreement, as amended, will contain provisions relating to indebtedness incurred by the Debtors that is permitted by the terms of the Super Senior Revolving Credit Facility, the Senior Secured Notes and the Existing Senior Secured Facilities, which ranks *pari passu* to the Senior Secured Notes and the Existing Senior Secured Facilities and is secured by the Collateral (the "**Pari Passu Debt**", the liabilities of the Debtors in respect thereof, the "**Pari Passu Debt Liabilities**", the creditors thereof, the "**Pari Passu Debt Creditors**" and all documents or instruments entered into between any Debtors and a Pari Passu Debt Creditor setting out the terms of any credit facility, notes, indenture or debt security which creates or evidences and Pari Passu Debt Liabilities, the "**Pari Passu Debt Documents**"), subject to the terms of the Intercreditor Agreement. The Intercreditor Agreement allows for a refinancing in full or in part of the Senior Secured Notes, the Existing Senior Secured Facilities and the Super Senior Revolving Credit Facility as Additional Indebtedness (as defined below).

Ranking and Priority

The Intercreditor Agreement, as amended, will provide, subject to the provisions regarding permitted payments, that the right and priority of payment of all present and future liabilities and obligations under the Credit Facilities (including all present and future liabilities and obligations under the Super Senior Revolving Credit Facility, the "**Credit Facility**

Liabilities"), the hedging agreements entered into by the Hedge Counterparties (the "**Hedging Liabilities**"), the Senior Secured Notes and the New Notes (the "**Notes Liabilities**"), certain liabilities owed by any member of the Restricted Group (as defined in the Intercreditor Agreement) in respect of cash management and treasury services provided by a cash management provider which has become a party to the Intercreditor Agreement (a "**Cash Management Provider**" and the liabilities owed to such Cash Management Providers, the "**Cash Management Liabilities**"), all present and future liabilities and obligations under the Existing Senior Secured Facilities (the "**Existing Senior Secured Facility Liabilities**") and certain other liabilities will rank in right and priority of payment in the following order:

- first, the Credit Facility Liabilities, the Hedging Liabilities, the Notes Liabilities, the Existing Senior Secured Facility Liabilities, any other Pari Passu Debt Liabilities, the Cash Management Liabilities, the creditor representative liabilities and the liabilities owed to the Security Agent and *pari passu* and without any preference between them; and

- second, certain intercompany obligations of the Debtors to the Company and its subsidiaries (the "**Intra-Group Liabilities**") and liabilities owed by any Debtor to the Parent and possibly other structural creditors (the "**Structural Liabilities**" and together with the Intercompany Debt, the "**Subordinated Liabilities**").

The Intercreditor Agreement does not purport to rank the Subordinated Liabilities among themselves.

Transaction Security

The creditors under the Credit Facilities (including the creditors under the Super Senior Revolving Credit Facility, the "**Credit Facilities Creditors**"), the Hedge Counterparties, the holders of the Senior Secured Notes, the creditors under the Existing Senior Secured Facilities, any other Pari Passu Debt Creditors, the Cash Management Providers, the creditor representatives and the Security Agent (together, the "**Secured Parties**") benefit from the transaction security (which, for the purposes of the Intercreditor Agreement, includes a guarantee granted by the Parent recourse under which shall be limited to the value of the enforcement proceeds of the security provided are shares of the Company and are pledged by the Parent). Subject to the order of application of proceeds (see "*Application of Proceeds*" below), the transaction security shall rank and secure the Credit Facility Liabilities, the Hedging Liabilities, the Notes Liabilities, the Pari Passu Debt Liabilities, the Cash Management Liabilities, the creditor representative liabilities and the liabilities owed to the Security Agent *pari passu* and without preference between them. Neither Ancillary Lenders nor Hedge Counterparties nor Cash Management Providers may take the benefit of any guarantee or security from members of the Group (other than customary security for ancillary lenders and hedge counterparties) unless such guarantee or security is also offered (to the extent legally possible) for the benefit of the other Secured Parties. In addition, the Intercreditor Agreement provides that the guarantees and transaction security will be released in certain circumstances described further below in *"—Release of Security—Non distressed Disposals" and "—Release of Security and Guarantees—Distressed Disposals*".

Permitted Payments

The Intercreditor Agreement, as amended, will permit payments to be made by the Debtors under the Super Senior Revolving Credit Facility, the Senior Secured Notes, the Existing Senior Secured Facilities, the New Notes and any other Pari Passu Debt Documents (provided such payments are permitted under those documents). The Intercreditor Agreement also permits payments to creditors of Intra-Group Liabilities, provided that there has been no acceleration event in respect of the Credit Facilities (including the Super Senior Revolving Credit Facility), the Existing Senior Secured Facilities, the Senior Secured Notes, the New Notes or any other Pari Passu Debt (subject to exceptions). No payments may be made in respect of Structural Liabilities except as permitted by the Credit Facilities (including the Super Senior Revolving Credit Facility), the Existing Senior Secured Facilities, the Senior Secured Notes Documents, the conditions of issue of the Senior Secured Notes and any other Pari Passu Debt Documents or if the required majority of each class of debt has consented. There are also restrictions on payments to Hedge Counterparties subject to except certain specified permitted payments.

Limitations on Enforcement

For the purposes of enforcement, the Credit Facility Creditors (including the creditors under the Super Senior Revolving Credit Facility), any Hedge Counterparty to the extent of their Priority Hedging Liabilities and the Cash Management Providers are referred to as the "**Super Senior Creditors**". Prior to the proposed amendment and restatement of the Intercreditor Agreement referred to above, Hedging Liabilities may be designated as Priority Hedging Liabilities if they are in relation to foreign currency hedging and/or interest rate hedging and the designated mark-to-market amount in respect of those Hedging Liabilities does not exceed an aggregate amount of €35,000,000 (the "**Priority Hedging Limit**"). In connection with the proposed amendment and restatement of the Intercreditor Agreement described above, we intend to amend and restate the Intercreditor Agreement to increase the Priority Hedging Limit from up to €35,000,000 to up to €80,000,000.

If the transaction security has become enforceable and any of the Super Senior Creditors, the holders of the Senior Secured Notes or the New Notes (acting through the holders' representative), the creditors under the Existing Senior Secured Facilities or any other Pari Passu Debt Creditors wish to enforce the transaction security, either (a) the Majority Super Senior Creditors or (b) the Majority Pari Passu Creditors must give notice of the proposed instructions as to enforcement (the "**Shared Security Notice**") to the creditor representatives for the other creditor classes and the Security Agent. The giving of this notice triggers a 30 day consultation period during which time the creditor representatives for each of the creditor classes must discuss the proposals in good faith with a view to formulating joint enforcement. During the consultation period, but subject to certain exceptions, the Secured Parties may not accelerate their respective Liabilities owed to them under the Debt Documents nor closeout any hedging transactions.

The "**Majority Super Senior Creditors**" means those Super Senior Creditors whose participations in the Credit Facility Liabilities, terminated Priority Hedging Liabilities and Cash Management Liabilities exceed $66^2/_3$ per cent. Of the aggregate participations in the Credit Facility Liabilities, Priority Hedging Liabilities and Cash Management Liabilities. The "**Majority Pari Passu Creditors**" means a simple majority of the aggregate of (i) the outstanding principal amount of a combined class of holders of the Pari Passu Debt Creditors (including holders of the Senior Secured Notes and the New Notes and the creditors under the Existing Senior Secured Credit Facilities) and (ii) the outstanding amount owed by any Debtor to the non-priority hedge counterparties.

A creditor representative is not obliged to consult as described above (or shall only be obliged to consult for a shorter period) if:

- an insolvency event has occurred and is continuing in relation to a Debtor;
- an event of default is continuing in relation to liabilities owed to the relevant creditor group and that creditor group (acting in good faith) determines, and notifies the creditor representatives, that to do so and thereby delay enforcement could reasonably be expected to have a material adverse effect on (A) the Security Agent's ability to enforce any of the transaction security; or (B) the realization proceeds available to that creditor group of any enforcement of the transaction security in any material respect; or
- the creditor representatives so agree.

Conflicting Enforcement Instructions

At the end of the consultation period, the Security Agent shall act on the instructions of the Instructing Group. If the Security Agent does not receive any instructions from the Instructing Group as to enforcement following the consultation period, the Security Agent shall take no action. The Instructing Group consists of (i) the Majority Super Senior Creditors and (ii) the Majority Pari Passu Creditors, in each case acting through their creditor representatives. If there are conflicting enforcement instructions given to the Security Agent by the different classes of creditors who can constitute the Instructing Group (or if a creditor representative of a class of creditors fails to give instructions), then provided that the Majority Pari Passu Creditors have complied with the consultation obligations in the Intercreditor Agreement and those instructions are consistent with the security enforcement principles (see further below), the instructions as to enforcement from the Majority Pari Passu Creditors will prevail over those of the Majority Super Senior Creditors and the Majority Pari Passu Creditors will constitute the Instructing Group.

If (a) the Security Agent has not taken any enforcement action within 3 months of the date of the first shared security notice was issued; (b) the Super Senior Creditors have not been repaid in full in cash within 6 months of the date the first Shared Security Notice was issued; or (c) an insolvency event occurs in respect of a Debtor and the Security Agent has not commenced enforcement, any enforcement instructions given by the Majority Super Senior Creditors will then prevail, provided that they are consistent with the security enforcement principles.

Any enforcement instructions given must comply with certain security enforcement principles which include:

- achieving the security enforcement objective, which is to maximize, so far as is consistent with the prompt and expeditious realization of value from enforcement of the transaction security, the recoveries of all Secured Parties;
- all enforcement proceeds will be received in cash by the Security Agent or sufficient enforcement proceeds will be received in cash by the Security Agent to ensure that after distribution in accordance with the Intercreditor Agreement, the Credit Facility Liabilities, Priority Hedging Liabilities and Cash Management Liabilities will be repaid and discharged in full;
- all enforcement action must be prompt and expeditious and reasonably expected to realize proceeds from enforcement within six months of receipt by the Security Agent of initial enforcement instructions;

- to the extent that the enforcement is over transaction security with an aggregate book value exceeding €5,000,000 (or its equivalent) or over all of the shares in a member of the restricted group which are secured, the Security Agent shall obtain an opinion from a "big four" accounting firm, a recognized independent investment bank or other reputable independent third party professional firm that is regularly engaged in providing valuations of the relevant type and size of assets, as to whether the amount received in connection with such enforcement is fair from a financial point of view taking into account all relevant circumstances (the "**Financial Advisor Opinion**");

- the Financial Advisor Opinion will be conclusive evidence that the security enforcement objective and the security enforcement principles have been met; and

- if the enforcement is by way of public auction, no Financial Advisor Opinion is required.

Turnover

Subject to certain exclusions, if any Credit Facility Creditor, Pari Passu Debt Creditor, Hedge Counterparty (or any of their respective creditor representatives), a Cash Management Provider or the holders' representative receives or recovers the proceeds of any enforcement of any transaction security, except in accordance with "*—Application of Proceeds*" below, that person must:

- in relation to amounts not received or recovered by way of set off, hold that amount (net of third party costs and taxes) on trust for the Security Agent and promptly pay an amount equal to that amount (net of third party costs and taxes) to the Security Agent for application in accordance with the terms of the Intercreditor Agreement; and

- in relation to receipts and recoveries received or recovered by way of set off, promptly pay an amount equal to that recovery (net of third party costs and taxes) to the Security Agent for application in accordance with the terms of the Intercreditor Agreement.

There is also a general turnover obligation on the subordinated creditors to turnover to the Security Agent all amounts which are not permitted payments made in accordance with the Intercreditor Agreement.

Application of Proceeds

All amounts from time to time received or recovered by the Security Agent as Enforcement Proceeds (as defined under the Intercreditor Agreement) or otherwise paid to the Security Agent for application in accordance with the provisions described under this paragraph shall be held on trust by the Security Agent and applied at any time as the Security Agent (in its discretion) sees fit, to the extent permitted by law, in the following order:

- first, in discharging any sums owing to the Security Agent, any receiver or any delegate;

- second, pari passu and pro rata, to each creditor representative, including all costs and expenses incurred in connection with any enforcement;

- third, pari passu and pro rata, in payment to the creditor representative of the Lenders for application towards the discharge of the Credit Facility Liabilities (including liabilities under the Super Senior Revolving Credit Facility), to the arrangers of any Credit Facilities, the Hedge Counterparties in respect of their Priority Hedging Liabilities and the Cash Management Providers;

- fourth, pari passu and *pro rata*, in payment to (i) the respective paying agent on behalf of the holders of the Senior Secured Notes and the New Notes for application towards the discharge of the Notes Liabilities in accordance with the Notes Documents; (ii) the creditor representatives of the other Pari Passu Debt Creditors for application towards the discharge of the other Pari Passu Debt; and (iii) the Hedge Counterparties for application towards the discharge of the non priority hedging obligations;

- fifth, in payment to any person the Security Agent is obliged to pay in priority to any Debtor; and

- sixth, in payment of the surplus (if any) to the relevant Debtor.

Option to Purchase

Any Pari Passu Debt Creditors (including the holders of the Senior Secured Notes and the New Notes and the creditors under the Existing Senior Secured Facilities) may, after an Acceleration Event or an enforcement, and subject to various

conditions set out in the Intercreditor Agreement (including the grant of an acceptable indemnity against clawback to the relevant lenders / creditors), exercise an option to purchase in full and in cash the Credit Facility Liabilities, any Pari Passu Liabilities incurred to refinance the Credit Facility Liabilities in full, any Priority Hedging Liabilities and any Cash Management Liabilities, at par.

Release of Security—Non Distressed Disposals

In circumstances where (i) a disposal is not a distressed disposal (*i.e.*, a disposal to a person or persons outside the Group of an asset by a Debtor which is subject to the transaction security or a disposal of the shares in the capital of any holding company of a Debtor which is permitted by the terms of any Credit Facility, the conditions of issue of the Senior Secured Notes, the conditions of issue of the New Notes, the Existing Senior Secured Facilities and any other Pari Passu Debt Documents) or (ii) any transaction pursuant to which security shall be granted over any asset which is subject to transaction security to a person which is not a secured creditor and a corresponding release of transaction security is permitted under the terms of any Credit Facility, the conditions of issue of the Senior Secured Notes, the conditions of issue of the New Notes, the Existing Senior Secured Facilities and any other Pari Passu Debt Documents, the Intercreditor Agreement will provide that the Security Agent is irrevocably authorized and instructed to deliver:

- any release of the transaction security and any other claim over that asset;
- where that asset consists of shares in the capital of a Debtor, any release of the transaction security and any other claim over that Debtor's property and/or the shares in, and property of, any of its subsidiaries; and
- issue any certificates of non crystallization of any floating charge or any consent to dealing that may, in the discretion of the Security Agent, be considered necessary or desirable.

Release of Security—Unrestricted Subsidiaries

If a member of the Group is designated as an Unrestricted Subsidiary in accordance with the terms of each of the Credit Facilities, the conditions of issue of the Senior Secured Notes, the conditions of issue of the New Notes, the Existing Senior Secured Facilities and any other Pari Passu Debt Documents, the Security Agent is irrevocably authorized and obliged (at the cost of the relevant debtor and the Company and without any consent, sanction, authority or further confirmation from any creditor or debtor):

- to release the transaction security or any other claim (relating to a debt document) over that member of the Group's assets; and
- to execute and deliver or enter into any release of the transaction security or any claim described in the paragraph above and issue any certificates of non-crystallization of any floating charge or any consent to dealing that may, in the discretion of the Security Agent, be considered necessary or desirable or as requested by the Company.

Release of Security and Guarantees—Distressed Disposals

In circumstances where a distressed disposal is being effected, the Intercreditor Agreement will provide that the Security Agent is irrevocably authorized and instructed:

- to release the transaction security or any other claim over the relevant asset and execute and deliver or enter into any release of that transaction security, or claim and issue any letters of non crystallization of any floating charge or any consent to dealing that may, in the discretion of the Security Agent, be considered necessary or desirable;
- if the asset that is disposed of consists of shares in the capital of a Debtor, to release (i) that Debtor and any subsidiary of that Debtor from all or any part of its borrowing liabilities, guarantee liabilities and certain other liabilities; (ii) any transaction security granted over that Debtor's assets and the assets of any of its subsidiaries; and (iii) any other claim of a Debtor or intra Group lender over that Debtor's assets or over the assets of any subsidiary of that Debtor;
- if the asset that is disposed of consists of shares in the capital of any holding company of a Debtor, to release (i) that holding company and any subsidiary of that holding company from all or any part of its borrowing liabilities, guarantee liabilities and certain other liabilities; (ii) any transaction security granted by that holding company or any subsidiary of that holding company over any of its assets; and (iii) any other claim of a Debtor or intra Group lender over the assets of any holding company or any subsidiary of that holding company;

- if the asset which is disposed of consists of shares in the capital of a Debtor or any holding company of a Debtor, to dispose of all or any part of that Debtor's or the holding company that Debtor's borrowing liabilities, guarantee liabilities, certain other liabilities, and other intra Group receivables; and

- if the asset which is disposed of consists of shares in the capital of a Debtor or any holding company of a Debtor, to transfer Intra Group Liabilities and debtor liabilities owed by that Debtor or holding company of a Debtor to another Debtor.

Any net proceeds of the disposal must be applied in accordance with the enforcement proceeds waterfall described under "*—Application of Proceeds*".

Amendment

The Intercreditor Agreement may only be amended with the consent of the Majority Super Senior Creditors, the required percentage of Pari Passu Debt Creditors (as set out in the relevant Pari Passu Debt Documents), or the written consent of the creditor representative of the Pari Passu Debt Creditors (acting in accordance with the terms of the relevant Pari Passu Debt Documents), the Company and the Security Agent unless it relates to certain specified matters such as ranking, priority, turnover, redistribution, enforcement, disposal proceeds, application of enforcement proceeds and security enforcement principles. Such amendments require consent from all Super Senior Creditors, the holders of the Senior Secured Notes (acting through the relevant Holders' Representative and in accordance with the relevant conditions of issue), the other Pari Passu Debt Creditors (including the lenders under the Existing Senior Secured Facilities), and each Hedge Counterparty (to the extent such amendments adversely affect it), each Cash Management Provider (to the extent such amendment adversely affects it) and the Security Agent; provided that where an amendment or waiver only relates to the ranking order of priority or subordination or, or application of proceeds of enforcement to creditors ranking after any other group of creditors, the consent of such other group of creditors shall not be required.

No amendment or waiver of the Intercreditor Agreement may impose new or additional obligations on or withdraw or reduce the rights of any party (other than in a way which affects creditors of that party's class generally) to the Intercreditor Agreement without the prior consent of that party or in the case of a Debtor, to the extent consented to by the Company.

The Intercreditor Agreement may be amended without the consent of the holders of the Senior Secured Notes in certain circumstances.

To the extent the Debtors wish to enter into additional Pari Passu Debt or other additional or replacement indebtedness ("**Additional Indebtedness**") which is permitted to share in the transaction security pursuant to any Credit Facility, the conditions of issue of the Senior Secured Notes, the conditions of issue of the New Notes and any other Pari Passu Debt Documents, then the parties to the Intercreditor Agreement may be required to enter into a replacement intercreditor agreement on substantially the same terms as the Intercreditor Agreement.

The Intercreditor Agreement also permits the Security Agent (subject to the terms of any Credit Facility) to enter into new or supplemental security and/or release and retake transaction security if certain conditions are met.

Governing law

The Intercreditor Agreement and any non-contractual obligations arising out of or in connection with it are governed by and construed and enforced in accordance with German law.

SENIOR SECURED NOTES

Defined terms used in the following summary have the meanings ascribed to them in the conditions of issue governing the Senior Secured Notes.

General

On April 30, 2015, Progroup AG issued €250 million aggregate principal amount of 5.125% senior secured fixed rate notes due 2022 (the "**Original Fixed Rate Notes**"). To fund a portion of the purchase price for the CHP Acquisition, the Company issued an additional €95 million aggregate principal amount of its 5.125% senior secured fixed rate notes due 2022 on January 4, 2016 (the "**Additional Fixed Rate Notes**" and together with the Original Fixed Rate Notes, the "**Senior Secured Fixed Rate Notes**"). The Additional Fixed Rate Notes constitute an increase (*Aufstockung*) and have the same terms as the Original Fixed Rate Notes in all respects and are consolidated with and form a single series (*Gesamtemission*) with the Original Fixed Rate Notes for all purposes, including, without limitation, waivers, amendments, redemptions and offers to purchase. We intend to use the proceeds from the offering of the New Notes

together with cash-in-hand, bank balances, to redeem in full the €345,000,000 outstanding principal amount of the Senior Secured Fixed Rate Notes on May 2, 2018.

On March 27, 2017, Progroup AG also issued €150 million aggregate principal amount of its senior secured floating rate notes due 2024, (the "**Senior Secured Floating Rate Notes**" and together with the Senior Secured Fixed Rate Notes, the "**Senior Secured Notes**"). Progroup AG used the proceeds from the offering of the Senior Secured Floating Rate Notes to redeem the remaining €75 million outstanding principal amount of its €150 million floating rate notes due 2022, to pay transaction fees and expenses and for general corporate purposes.

The Senior Secured Notes are issued under conditions of issue pursuant to German law. Generally, the conditions of issue governing the Senor Secured Notes are similar to (but more restrictive in certain respects than) the conditions of issue of the New Notes.

Interest Rates, Payment Dates and Maturity

Interest on the Senior Secured Fixed Rate Notes accrues at the rate of 5.125% per annum, and interest on the Senior Secured Floating Rate Notes accrues at a per annum rate equal to three-month EURIBOR plus 2.500%, reset quarterly. Interest on the Senior Secured Fixed Rate Notes is payable semi-annually in arrears on May 1 and November 1 of each year, commencing on November 1, 2015. Interest on the Senior Secured Floating Rate Notes is payable quarterly in arrears on March 31, June 30, September 30 and December 31, commencing on June 30, 2017.

The Senior Secured Fixed Rate Notes will mature on May 1, 2022. We intend to use the proceeds from the offering of the New Notes, together with cash-in-hand, bank balances, to redeem in full the €345 million outstanding principal amount of the Senior Secured Fixed Rate Notes on May 2, 2018.

Ranking of the Senior Secured Notes

The Senior Secured Notes:

- are senior obligations of Progroup AG and rank equal in right of payment with all of Progroup AG's existing and future obligations that are not subordinated in right of payment to the Senior Secured Notes, including obligations under the New Notes, the Super Senior Revolving Credit Facility, the Priority Hedging Obligations and the Cash Management Liabilities;

- are secured by the Collateral along with obligations under the New Notes, the Super Senior Revolving Credit Facility, Priority Hedging Obligations and Cash Management Liabilities (but will receive proceeds from an enforcement of the Collateral only after all obligations secured on a super priority basis, including obligations under the Super Senior Revolving Credit Facility, the Priority Hedging Obligations and the Cash Management Liabilities, have been paid in full);

- rank senior in right of payment to any subordinated indebtedness of Progroup AG;

- effectively rank senior in right of payment to any existing or future unsecured obligations of Progroup AG, to the extent of the value of the Collateral that is available to satisfy the obligations of Progroup AG under the Senior Secured Notes;

- are effectively subordinated to Progroup AG's existing and future secured indebtedness that is secured by property or assets that do not secure the Senior Secured Notes, to the extent of the value of such property and assets securing such indebtedness; and

- be structurally subordinated to all existing and future obligations of Progroup AG's subsidiaries that are not Guarantors.

Guarantees

As of the date of this annual report, the Senior Secured Notes are guaranteed on a senior basis by the Guarantors.

Security

The Senior Secured Notes are secured by first ranking liens over (i) the shares of Progroup AG, Prowell S.A.S. and each Guarantor (ii) certain real property; (iii) certain bank accounts of the Company; and (iv) certain fixed and other assets (the "**Collateral**"). In the event of enforcement of the Collateral, the holders of the Senior Secured Notes will receive

proceeds from such Collateral only after lenders under the Super Senior Revolving Credit Facility and Cash Management Liabilities and counterparties to Priority Hedging Obligations have been repaid in full, any they will share any remaining proceeds with any other Pari Passu Debt, including the New Notes. The security interests over the Collateral or the enforcement thereof will be subject to significant contractual and legal limitations or subject to certain defenses under applicable law.

Optional Redemption and Change of Control

Senior Secured Floating Rate Notes

At any time prior to March 31, 2018, Progroup AG has the option on any one or more occasions redeem all or a part of the Senior Secured Floating Rate Notes upon not less than 10 nor more than 60 days' prior notice, at a redemption price equal to 100% of the principal amount of the Floating Rate Notes redeemed plus the Applicable Premium (as defined in the conditions of issue governing the Senior Secured Floating Rate Notes) and accrued and unpaid interest and Additional Amounts (as defined in the conditions of issue governing the Senior Secured Floating Rate Notes), if any, to but excluding the applicable redemption date (subject to the rights of Holders of Senior Secured Floating Rate Notes to receive interest on the relevant interest payment date).

Except pursuant to the preceding paragraph and except for the option to redeem the Senior Secured Floating Rate Notes for certain tax reasons, the Senior Secured Floating Rate Notes are not redeemable at Progroup AG's option prior to March 31, 2018.

At any time on or after March 31, 2018, Progroup AG may on any one or more occasions redeem all or a part of the Senior Secured Floating Rate Notes, upon not less than 10 nor more than 60 days' notice, at the redemption prices (expressed as a percentage of principal amount) set forth below, plus accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date, if redeemed during the twelve-month period beginning on March 31 of the years indicated below, subject to the rights of Holders of Senior Secured Floating Rate Notes to receive interest on the relevant interest payment date:

2018	101.000%
2019 and thereafter	100.000%

Senior Secured Fixed Rate Notes

At any time prior to May 1, 2018, Progroup AG may on any one or more occasions redeem up to 35% of the original principal amount of the Senior Secured Fixed Rate Notes (calculated after giving effect to any issuance of further Senior Secured Fixed Rate Notes) with the Net Cash Proceeds of one or more Equity Offerings (each as defined in the conditions of issue governing the Senior Secured Fixed Rate Notes) at a redemption price of 105.125% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date (subject to the rights of Holders of Senior Secured Fixed Rate Notes on the relevant record date to receive interest on the relevant interest payment date); provided, however, that: (i) at least 65% of the original principal amount of the Senior Secured Fixed Rate Notes (calculated after giving effect to any issuance of further Senior Secured Fixed Rate Notes) remains outstanding after each such redemption; and (ii) the redemption occurs within 90 days after the closing of such Equity Offering upon not less than 30 nor more than 60 days' prior notice.

At any time prior to May 1, 2018, Progroup AG may on any one or more occasions redeem all or a part of the Senior Secured Fixed Rate Notes upon not less than 30 nor more than 60 days' prior notice, at a redemption price equal to 100% of the principal amount of the Senior Secured Fixed Rate Notes redeemed plus the Applicable Premium and accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date (subject to the rights of holders of Senior Secured Fixed Rate Notes to receive interest on the relevant interest payment date).

Except pursuant to the preceding two paragraphs and except for the option to redeem the Senior Secured Fixed Rate Notes for certain tax reasons, the Senior Secured Fixed Rate Notes will not be redeemable at Progroup AG's option prior to May 1, 2018.

At any time on or after May 1, 2018, Progroup AG may on any one or more occasions redeem all or a part of the Senior Secured Fixed Rate Notes, upon not less than 30 nor more than 60 days' notice, at the redemption prices (expressed as a percentage of principal amount) set forth below, plus accrued and unpaid interest and Additional Amounts, if any, to but excluding the applicable redemption date, if redeemed during the twelve-month period beginning on May 1 of the years indicated below, subject to the rights of Holders of Senior Secured Fixed Rate Notes to receive interest on the relevant interest payment date:

2018	102.563%
2019	101.281%
2020 and thereafter	100.000%

Under the conditions of issue governing the Senior Secured Notes, upon the occurrence of certain events constituting a change of control, Progroup AG may be required to make an offer to repurchase all of the Senior Secured Notes at a redemption price equal to 101% of the principal amount thereof, plus accrued and unpaid interest and Additional Amounts, if any.

Covenants

The conditions of issue under which the Senior Secured Notes are issued will limit, among other things, the ability of Progroup AG and its Restricted Subsidiaries to:

- incur or guarantee additional indebtedness and issue certain preferred stock;
- pay dividends, redeem capital stock and make other distributions;
- make certain other restricted payments or restricted investments;
- prepay or redeem subordinated debt or equity;
- create or permit to exist certain liens;
- impose restrictions on the ability of the Restricted Subsidiaries to pay dividends;
- transfer or sell certain assets;
- merge or consolidate with other entities;
- enter into certain transactions with affiliates; and
- impair the security interests for the benefit of the holders of the Senior Secured Notes.

Under the conditions of issue governing the Senior Secured Notes, Progroup AG may make certain restricted payments. In addition to the capacity for restricted payments under a customary restricted payments build-up basket, which is based on 50% of consolidated net income (as defined in the relevant conditions of issue), Progroup AG and its Restricted Subsidiaries may, among other things, make payments to JH-Holding, our parent company, for purposes of making cash interest payments under and in accordance with the terms of a proceeds loan to JH-Holding Finance SA, as issuer of the PIK Toggle Notes, to be used for cash interest payments under the PIK Toggle Notes. In addition, Progroup AG and its Restricted Subsidiaries may make additional restricted payments to JH-Holding, provided that such restricted payment is solely applied, directly or indirectly, for purposes of redemption, repurchase, cancellation, defeasance or other discharge of the PIK Toggle Notes; and further provided that after giving effect to such restricted payment, among other things, the consolidated net leverage ratio not exceed 2.75 to 1.0. The availability of these exceptions and baskets for restricted payments will be subject to the absence of certain defaults or events of default occurring under the conditions of issue governing the Senior Secured Notes.

Event of Defaults

The conditions of issue governing the Senior Secured Notes contain customary events of default, including the non-payment of principal or interest on the Senior Secured Notes, certain failures to perform or observe any other obligation under the conditions of issue governing the Senior Secured Notes or the Security Documents (as defined in the relevant conditions of issue), the failure to pay certain indebtedness or judgments, the bankruptcy or insolvency of the Company or any guarantee by a Guarantor ceases to be in full force and effect or is declared null and void or unenforceable. The occurrence of any of the events of default would permit or require the acceleration of all obligations outstanding under the Senior Secured Notes.

OTHER FINANCING ARRANGEMENTS

Forfaiting Program and Former Factoring Programs

Historically, our subsidiaries Propapier PM1 GmbH, Propapier PM2 GmbH and Prowell GmbH financed a portion of their trade receivables through off balance sheet factoring and forfaiting programs. Propapier PM1 GmbH, Propapier PM2 GmbH and Prowell GmbH had entered into separate off balance sheet factoring agreements with CommerzFactoring GmbH, which we terminated effective January 2, 2018. In addition, Prowell GmbH has also entered into an off balance sheet forfaiting agreement with CommerzFactoring GmbH. Under the factoring programs we sold and under the forfaiting program we sell trade receivables to CommerzFactoring GmbH on a non recourse basis in return for immediate cash payments. The factoring transactions occurred on a rolling basis up to a maximum aggregate transaction volume of €20 million. The forfaiting transactions occur on a regular basis up to a maximum aggregate transaction volume of €15 million. As of December 31, 2017, €16.7 million in outstanding trade receivables were sold under the factoring and forfaiting programs.

INDEX TO THE FINANCIAL STATEMENTS

The following English-language consolidated financial statements are translations of the German-language audited consolidated financial statements.

Consolidated Financial Statements
for the Financial Year from
January 1 to December 31, 2017

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET
AS OF DECEMBER 31, 2017

Assets

	12/31/2017	12/31/2016
	€	€
A. Fixed assets		
I. Intangible assets		
Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets	19,774,377.20	22,352,487.92
	19,774,377.20	22,352,487.92
II. Tangible assets		
1. Land and buildings including buildings on leasehold land	184,496,574.12	175,004,896.31
2. Technical equipment and machinery	397,048,518.64	409,967,145.84
3. Other equipment, factory and office equipment	6,903,878.67	6,254,475.49
4. Prepayments and construction in process	32,719,703.85	26,238,988.67
	621.168.675,28	617,465,506.31
III. Financial assets		
1. Shares in affiliated companies	37,375.00	37,375.00
	37,375.00	37,375.00
	640,980,427.48	**639,855,369.23**
B. Current assets		
I. Inventories		
1. Raw materials, consumables and supplies	53,984,594.71	51,480,307.67
2. Work in process	27,670,803.17	18,396,052.55
3. Finished goods	5,061,384.60	4,038,107.33
4. Prepayments	147,495.16	29,331.24
	86,864,277.64	73,943,798.79
II. Receivables and other assets		
1. Trade receivables	78,858,760.03	59,561,522.43
2. Receivables from affiliated companies	39,495.50	52,117.58
3. Other assets	19,893,053.09	19,756,794.23
	98,791,308.62	79,370,434.24
III. Cash-in-hand, bank balances	117,946,188.56	37,370,276.21
	303,601,774.82	**190,684,509.24**
C. Prepaid expenses	**916,823.24**	**1,189,233.58**
D. Deferred taxes	**857,374.62**	**5,085,683.18**
	946,356,400.16	**836,814,795.23**

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PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED BALANCE SHEET (continued)
AS OF DECEMBER 31, 2017

			12/31/2017	12/31/2016
			€	€
A.	**Equity**			
	I.	Subscribed capital	7,588,236.00	7,588,236.00
	II.	Capital reserve	75,414,347.76	75,414,347.76
	III.	Other revenue reserves	1,407,760.39	1,407,760.39
	IV.	Currency translation adjustment	− 454,362.80	− 3,267,182.56
	V.	Consolidated net retained profits	193,358,116.68	178,465,411.73
			277,314,098.03	**259,608,573.32**
B.	**Investment grants for fixed assets**		**2,685,452.00**	**2,937,026.00**
C.	**Provisions**			
	1.	Provisions for pensions	172,635.98	34,574.11
	2.	Tax provisions	13,732,074.69	8,104,427.98
	3.	Other provisions	47,628,140.41	38,952,895.02
			61,532,851.08	**47,091,897.11**
D.	**Liabilities**			
	1.	Bonds	495,000,000.00	420,000,000.00
	2.	Bank loans	42,518,553.99	26,274,666.13
	3.	Trade payables	51,524,270.14	58,019,725.77
	4.	Other liabilities	12,160,973.83	18,188,200.73
			601,203,797.96	**522,482,592.63**
E.	**Deferred income**		**3,620,201.09**	**4,694,706.17**
			946,356,400.16	**836,814,795.23**

Consolidated Income Statement
for the Period from
January 1 to December 31, 2017

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED INCOME STATEMENT
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2017

		2017	2016
		€	€
1.	Sales	804,256,106.71	733,227,890.08
2.	Decrease (−)/increase in finished goods and work in process	10,298,027.90	− 6,554,261.00
3.	Other own work capitalized	2,637,490.27	1,116,082.39
4.	Other operating income	17,603,469.18	14,712,777.71
5.	Cost of materials		
	a) Cost of raw materials, consumables and supplies	− 361,658,663.22	− 309,632,342.08
	b) Cost of purchased services	− 68,822,103.75	− 61,917,741.74
		− 430,480,766.97	− 371,550,083.82
6.	Personnel expenses		
	a) Wages and salaries	− 58,293,848.15	− 52,627,414.65
	b) Social security and pensions	− 10,031,738.50	− 8,795,217.99
		− 68,325,586.65	− 61,422,632.64
7.	Amortization and depreciation of fixed intangible and tangible assets	− 50,032,404.06	− 47,372,114.05
8.	Other operating expenses	− 160,425,107.66	− 154,292,522.73
9.	Other interest and similar income	65,048.50	144,147.55
10.	Interest and similar expenses	− 23,677,768.98	− 25,333,903.47
11.	Taxes on income	− 28,057,517.77	− 19,792,814.98
12.	**Earnings after taxes**	**73,860,990.47**	**62,882,565.04**
13.	Other taxes	− 1,449,456.64	− 1,478,724.63
14.	**Consolidated net income for the year**	**72,411,533.83**	**61,403,840.41**
15.	Consolidated unappropriated retained earnings brought forward	120,946,582.85	117,061,571.32
16.	**Consolidated net retained profits**	**193,358,116.68**	**178,465,411.73**

Notes to the Consolidated Financial Statements
For Financial Year 2017

PROGROUP AG
OFFENBACH A. D. QUEICH, GERMANY
COMMERCIAL REGISTER LANDAU, HRB NO. 2268
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR FINANCIAL YEAR 2017

A. GENERAL INFORMATION

The consolidated financial statements of Progroup AG, comprising the consolidated balance sheet, consolidated income statement, notes to the consolidated financial statements, the consolidated cash flow statement and the consolidated statement of changes in equity, have been prepared in accordance with the applicable provisions of Parts One and Two of the Third Book of the Handelsgesetzbuch (HGB—German Commercial Code) and the supplementary provisions of the Aktiengesetz (AktG—German Stock Corporation Act). The previous year's figures are stated for comparative purposes.

In the interest of greater clarity and transparency, below-the-line items to be reported for consolidated balance sheet or consolidated income statement line items pursuant to the statutory provisions, as well as disclosures and below-the-line items which may be reported either in the consolidated balance sheet and consolidated income statement or in the notes to the consolidated financial statements have all been reported in the notes to the consolidated financial statements.

Insofar, as individual consolidated balance sheet items and/or consolidated income statement items have been combined as part of the statutory regulations so as to provide better transparency. The composition of these line items is presented in the notes to the consolidated financial statements.

B. SIGNIFICANT BUSINESS TRANSACTIONS

I. New issue of floating rate notes amounting to €150 million

On March 27, 2017, Progroup AG successfully issued Senior Secured Floating Rate Notes in an amount of EUR 150 million at an interest rate of three-month EURIBOR plus 2.5% p.a. with a term of seven years, maturing on March 31, 2024. Progroup used the proceeds from these Senior Secured Floating Rate Notes, among other things, to redeem the existing Floating Rate Note, which was issued in 2015 and had a principal amount of EUR 75 million as at the date of the new issue (March 27, 2017), as well as to pay certain transaction-related fees and expenses. The notes are secured by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the holding company Progroup AG, by assigning tangible fixed assets of the subsidiaries, by granting real estate liens and by assignments of certain receivables. Furthermore, certain covenants apply with regard to the loans.

II. Investments in the construction of a new Prowell plant

With effect of December 1, 2015, Progroup entered into a long-term framework and cooperation agreement for the construction of a further corrugated board plant in the southwest of Poland with one of our key customers. Completion of the production building and commencement of production operations at this location occurred in the first quarter of 2017. For the financing of the new plant, Prowell sp. z o.o. entered into a loan agreement for a fixed rate loan in an amount of PLN 107 million with Commerzbank Aktiengesellschaft, Frankfurt, on May 31, 2016. Of these loans, an amount of PLN 15 million was already repaid, resulting in a loan balance of PLN 92 million as at December 31, 2017.

III. New subsidiary established in Italy - Investments in a new Prowell plant in Italy

With effect of April 2, 2017, Progroup entered into a long-term framework and cooperation agreement for the construction of a further corrugated board plant in Northern Italy with the Italian packaging specialist Imbal Carton S.r.l./Italy. During the year 2017, our newly founded subsidiary Prowell S.r.l (Italy) established a new corrugated board production site in close proximity to our cooperation partner in Drizzona (Italy) with an investment volume of approximately EUR 13 million. Production operations at this location are expected to start in the first quarter of 2018.

IV. Investments in a new Prowell plant in the United Kingdom

On April 18, 2017, Progroup AG announced its plan to establish a new corrugated board production site in the United Kingdom. Within the framework of the Two Twentyfive strategy concept, a new corrugated board production site is planned to be constructed through Prowell Ltd. at the Ellesmere Port location until the end of 2018. Preparation and planning work for the construction of the site was started in the second quarter of 2017. Construction activities commenced in the fourth quarter of 2017.

V. Dividend distribution to Progroup AG shareholders

The Annual General Meeting of Progroup AG held on April 20, 2017 resolved the payment of a gross dividend of EUR 7.25 per share entitled to dividends from the net retained profits reported in the annual financial statements for the 2016 financial year in an amount of EUR 158,410,638.55. Thus, the total amount of the distribution made on April 20, 2017 amounted to EUR 55,014,711.00. Moreover, the Extraordinary General Meeting on November 7, 2017 resolved the payment of an additional gross dividend of EUR 0.33 per share entitled to dividends. Thus, the total amount of the distribution made on November 7, 2017 amounted to EUR 2,504,117.88.

C. BASIS OF CONSOLIDATION

The subsidiaries which have been included in the consolidated financial statements and the unconsolidated subsidiaries are presented in section F. III. 3 and 4 of the notes to the consolidated financial statements. With effect of March 28, 2017, the assets and liabilities of the subsidiary Prowell S.r.l., which was founded at that date, were consolidated for the first time. Accordingly, the contributions to earnings attributable to this company are contained in the consolidated income statement for the period from January 1 to December 31, 2017 for the first time

D. CONSOLIDATION PRINCIPLES

Acquisitions made until December 31, 2009 continue to be accounted for in accordance with section 66(3) of the Einführungsgesetz zum Handelsgesetzbuch (EGHGB—Introductory Act to the German Commercial Code), using the carrying amount method under section 301(1) no. 1 of the HGB (former version) by eliminating the cost of the equity investments against the proportionate amount that these shares represent in the equity of the subsidiaries.

Acquisitions made after December 31, 2009 are accounted for in accordance with section 301(1) no. 1 of the HGB (as amended) using the purchase method. With this method, the acquisition cost of the investments is eliminated against the equity reflecting the fair value of the assets, liabilities, prepaid expenses and deferred income as well as special items to be included in the consolidated financial statements at the acquisition date.

Two affiliated companies have not been consolidated as permitted under section 296(2) of the HGB. These companies are not material to the presentation of a true and fair view of the group's net assets, financial position and results of operation as sales and total assets of these companies amount to less than 1% of consolidated sales and consolidated total assets. Consolidation as an associate has also been dispensed with on the grounds of immateriality as permitted under section 311(2) of the HGB. Shares in these companies are recognized at amortized cost. The companies are listed by name in section F. III. 4. of the notes to the consolidated financial statements.

Receivables and liabilities between consolidated companies have been eliminated, with receivables and liabilities amounting to KEUR 590,056 having been eliminated outside profit or loss.

In financial year 2016, intercompany profits from Propapier PM1 GmbH's and Propapier PM2 GmbH's paper deliveries to affiliated companies increased to KEUR 2,642; they were eliminated through profit or loss. Intragroup sales, intragroup other operating income and interest income have been eliminated against corresponding expenses, with expenses and income amounting to KEUR 423,868 having been eliminated.

Deferred taxes are generally recognized for initial consolidation adjustments recognized outside profit or loss as well as for consolidation adjustments recognized through profit or loss. In 2017, consolidation adjustments recognized through profit or loss related exclusively to the elimination of intercompany profits. Deferred tax assets of KEUR 1,150 (2016: KEUR 362) were recognized on eliminated intercompany profits of KEUR 3,855 (2016: KEUR 1,213).

E. SIGNIFICANT ACCOUNTING POLICIES

I. Disclosure of accounting policies applied

Intangible assets are measured at cost less amortization. Amortization is calculated on a straight-line basis over the standard useful lives. The intangible assets are amortized over a useful life of 3 to 10 years. To the extent that the fair values of individual intangible fixed assets fall below their carrying amounts, additional impairment losses are recorded in case of an expected permanent impairment.

Tangible fixed assets are measured at purchase and production cost less depreciation. Depreciation on additions to tangible fixed assets is generally recorded pro rata temporis. To the extent that the fair values of individual assets fall below their carrying amounts, additional impairment losses are recorded in case of an expected permanent impairment.

The purchase costs comprise expenses incurred to acquire an asset and to bring it to its working condition to the extent that such costs can be allocated individually to such asset. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate indirect material costs and indirect labor costs, general and administrative costs and expenses for social amenities, for voluntary social benefits and for occupational pensions. Borrowing costs have also been included in production cost to the extent that they were attributable to the period of production.

Depreciation is calculated on a straight-line basis over the standard useful lives. Tangible fixed assets and buildings are depreciated over the period of 3 to 33 years.

Straight-line depreciation rates are increased by 50% for fixed assets which are used throughout the year in three-shift operations. Prepayments made are presented in the balance sheet at their nominal amount.

Investment grants are reported separately at their nominal amount on the liabilities side under the special item "investment grants for assets" and are reversed in accordance with the useful lives of the fixed assets for which the grants were awarded.

Low-value assets costing up to EUR 150.00 each are fully written off in the year of acquisition. Assets which are capable of being used independently and which cost between EUR 150.00 and EUR 1,000.00 are posted to a collective item in the year of acquisition; this collective item is reversed as a charge to profit or loss over 5 years.

Financial assets are measured at cost or, in the event of an expected permanent impairment, at their lower fair value as at the balance sheet date.

Inventories are measured at cost, taking account of the lower of cost or market value. Appropriate valuation allowances are recorded for any identifiable risks resulting from above-average storage periods, reduced recoverability and/or lower replacement costs. In all cases, fair value measurement was applied, i. e. write-downs are recognized to the extent that the expected selling prices less costs incurred prior to disposal result in a lower fair value.

Raw materials, consumables and supplies are measured at actual cost or, taking account of the principle of lower of cost or market value, at lower market values as at the reporting date. Replacement parts for machines are also recognized under raw materials, consumables and supplies. Appropriate valuation allowances are applied to inventories which are obsolete, second-hand, damaged or slow-moving Lump-sum valuation allowances amounting to KEUR 1,834 (previous year: KEUR 1,629) were applied to replacement parts which are obsolete, second-hand or slow-moving.

Work in process and finished goods are measured at production cost. Production cost comprises, if applicable, direct material costs, direct labor costs and special costs of production, appropriate and necessary indirect material costs, indirect labor costs, depreciation and amortization of fixed assets that is attributable to the production process and general and administrative costs and costs of occupational pensions. Borrowing costs are not included in production cost.

Receivables and other assets as well as the remaining assets are recognized at their principal amount or at their lower fair value as at the balance sheet date.

Appropriate valuation allowances are applied to receivables whose recoverability is associated with identifiable risks; irrecoverable receivables are written off in full. To cover the general risk from trade receivables, a global valuation allowance of 1% is recognized on domestic and foreign receivables (net of value added tax) which are not subject to a specific valuation allowance.

Cash-in-hand and bank balances are measured at their nominal amounts.

Payments before the balance sheet date are recognized as **prepaid expenses** to the extent that they represent an expense for a specific period of time after this date.

Deferred taxes are recognized at their calculated amount. For further explanations, please refer to Chapter F.

Subscribed capital is recognized at calculated amount.

Provisions are recognized at the settlement amount dictated by prudent business judgement. Provisions are recognized for liabilities of uncertain timing and/or amount as well as for losses from onerous contracts. All risks arising up to the balance sheet date and identifiable up to the date of the preparation of the financial statements have been taken into account. Provisions with a remaining term of more than one year have been discounted using the average market interest rate of the last seven years applicable for their remaining term, while pension provisions are discounted using the average

market interest rate of the past ten years.

Liabilities are carried at their settlement amount.

Payments received before the reporting date are recognized as **deferred income** to the extent that they represent income for a specific time period after this date.

II. Currency translation disclosures

Receivables, other assets, cash and cash equivalents and provisions and liabilities denominated in foreign currencies are translated during the year into euros. Measurement as at the balance sheet date is at the December 31, 2017 closing rate, with the principle of lower of cost or market value, or higher settlement amount, as appropriate, being taken into account for receivables and liabilities with a maturity of over one year in accordance with section 256a HGB.

Foreign exchange gains or losses arising from currency translation are recognized in other operating income or expenses.

Translation of foreign subsidiary annual financial statements is carried out using the modified closing rate method in accordance with section 308a HGB.

Currency translation differences from the consolidation of intercompany balances are recognized directly in currency translation adjustments in equity.

A currency forward was concluded to hedge the currency risk of a loan granted by Progroup AG to the subsidiary Prowell Ltd. in the amount of KGBP 7,146. A hedging relationship was established within the meaning of section 254 of the HGB. The effective portions of the established hedging relationships are accounted for in the financial statements using the so-called gross hedge presentation method *(Durchbuchungsmethode)*. The currency forward contract has a negative market value of KEUR 35 as at December 31, 2017, which was recorded in currency translation adjustments in equity. The fair value was derived from the closing rate and the risk-free interest rate based on the cost-of-carry method.

F. DISCLOSURES AND EXPLANATIONS ON INDIVIDUAL LINE ITEMS IN THE CONSOLIDATED BALANCE SHEET AND CONSOLIDATED INCOME STATEMENT

The financial year of all companies included in the consolidated financial statements corresponds to the calendar year.

I. Consolidated balance sheet

1. Fixed assets

In connection with the acquisition of EnBW Propower GmbH in 2015 and related revaluation of acquired fixed assets in correspondence with the capital consolidation, an operating license at acquisition cost of KEUR 23,894 has been acquired. Subsequently, the operating license is amortized since 2015 over a remaining useful life of 10 years. As at the balance sheet date, the carrying amount is KEUR 19,257 with a remaining term of 8 years.

The classification and movement in the financial year of the fixed asset accounts recognized in the consolidated financial statements are separately presented as an appendix to the notes to the financial statements in the fixed asset movement schedule.

Fixed asset production cost includes capitalized borrowing costs of KEUR 200 which were attributable to the period of production. The capitalized borrowing costs were recognized in fixed assets in the line item “Construction in process”. Interest capitalized in previous years was capitalized in tangible fixed assets, primarily in buildings and technical equipment and machinery.

The value of construction in process as at December 31, 2017 is EUR 32.7 million (previous year: EUR 26.2 million), mainly resulting from the two production sites in Ellesmere Port, UK, and Drizzona, Italy. This includes own work capitalized in the amount of EUR 1.7 million.

2. Receivables and other assets

As in the previous year, receivables and other assets do not include receivables due in more than one year.

As in the previous year, receivables from affiliated companies resulted exclusively from Group trading with affiliated companies not fully consolidated.

Furthermore, other assets include input tax refund claims of the entire VAT group in an amount of KEUR 280 (previous year: KEUR 176), which in accordance with tax law provisions come into existence only after the balance sheet date.

3. Deferred taxes

Balance sheet account	Deferred tax assets 12/31/2017 KEUR	Deferred tax assets 12/31/2016 KEUR	Deferred tax liabilities 12/31/2017 KEUR	Deferred tax liabilities 12/31/2016 KEUR
Tax loss carryforwards/eligible interest carried forward	4,129	9,611	0	0
Elimination of intercompany profits	1,150	362	0	0
Assets				
Intangible fixed assets	0	0	5,338	5,988
Tangible fixed assets/financial assets	1,805	1,808	865	849
Inventories, receivables and other assets	231	163	483	387
Liabilities				
Provisions	261	384	2	0
Liabilities	0	0	31	19
Total deferred tax (gross)	7,576	12,328	6,719	7,243
Deferred tax disclosed (gross and rounded)	857	5,085		

To determine deferred taxes based on temporary differences between the financial statement carrying amounts for assets, liabilities, prepaid expenses and deferred charges and deferred income, and their tax bases, or based on tax loss carryforwards and interest carried forward, the amounts of the resulting tax liability and benefit were measured at the individual companies' tax rates (19% - 29.83%) at the point in time when the differences are reversed; they were not discounted. Deferred tax assets relating to loss carryforwards were taken into account if it was probable that the loss would be offset within the next five years. Today's assessment may change in accordance with the companies' income positions and tax legislation in future years and may require to be adjusted. In addition, deferred tax assets were recognized in financial year 2017 on consolidation adjustments for the elimination of intercompany profits in accordance with § 306 HGB as well as from initial consolidation outside profit or loss of EnBW Propower GmbH acquired in 2015.

Deferred tax assets on tax loss carryforwards KEUR 650 (previous year: KEUR 271) and eligible interest carried forward (German earnings stripping rule; KEUR 3,479 (previous year: KEUR 9,340)) were fully recognized because the underlying tax planning confirms that the amounts recognized could actually be utilized to reduce tax liabilities in the next 5 years. Deferred tax assets and deferred tax liabilities are reported net.

4. Subscribed capital

The share capital of the parent company is EUR 7,588,236.00 and is divided into 7,588,236 no-par value shares with a calculated amount of subscribed capital of one euro each.

Distribution potential is based on the annual financial statements of Progroup AG. The articles of association do not contain any restrictions on distributions. There is a statutory restriction on distributions equivalent to the deferred tax assets in the annual financial statements of Progroup AG pursuant to section 268(8) of the HGB in the amount of EUR 4.3 million as well as from the measurement of the pension liabilities pursuant to section 253(6) of the HGB in the amount of EUR 0.2 million.

5. Investment grants for fixed assets

Investment grants for fixed assets are reported as a special reserve and are reversed on a pro rata basis in accordance with the useful lives of the fixed assets for which the grants were awarded.

6. Pension provisions

Pension provisions are measured in accordance with the PUC method using Prof. Dr. Klaus Heubeck's 2005 G mortality tables. All pension provisions were discounted at the market interest rate of the preceding ten years published by Deutsche Bundesbank (10-year average interest rate) assuming that all liabilities have a remaining maturity of 15 years (section 253(2) sent. 2 of the HGB).

Measurement of pension provisions is based on the following assumptions:

- Pension increase: +2% (unchanged from 2016)

- Salary increase: 0% (unchanged from 2016)
- Interest rate (10-year average): 3.68%
- Interest rate (7-year average): 2.8%

Pension obligations for which provisions were required to be recognized amounted to KEUR 1,290 as at the balance sheet date (10-year average rate). These obligations are offset against assets that serve exclusively to settle liabilities from post-employment benefit obligations and are exempt from attachment by third parties (so-called plan assets). A pledged pension liability insurance policy was classified as a plan asset. Plan assets that serve a specific purpose, have been pledged and are protected against insolvency were measured based on information from the insurer as at December 31, 2017, at the asset value (KEUR 1,118; this corresponds to the fair value). The balance remaining after the offset with the carrying amount of the pension provision (KEUR 173) is reported under "provisions for pensions". Effect on profit in 2017:

- Interest expense from pension provision: KEUR 43
- Interest income from plan assets: KEUR 22

The balance of interest expenses from the measurement of the pension provision (including the effect from changes in interest) and interest income from the measurement of the plan assets was reported net in the financial result. For the financial year, the balance between the measurement of the pension provision with the 7-year average interest rate and the 10-year average interest rate amounts to KEUR 159 and is subject to a distribution restriction at the level of the individual financial statements of Progroup AG.

7. Tax provisions

Tax provisions	2017	2016
	KEUR	KEUR
Corporate income tax	6,249	3,955
Trade tax	7,428	4,102
Other tax	53	47
	13,732	**8,104**

8. Other provisions

This item comprises the following provisions:

Provision for	2017	2016
	KEUR	KEUR
Outstanding invoices	22,138	20,577
Personnel expenses (bonuses, special payments, severance payments, holiday obligations, overtime)	9,678	7,102
Bonuses still to be granted	8,929	6,754
Costs of preparing the annual financial statements, legal and consulting costs, storage	4,986	2,327
Maintenance not undertaken	1,190	1,555
Berufsgenossenschaft (Employer's Liability Insurance Association), *Schwerbehindertenabgabe* (levy for not employing disabled persons)	707	638
	47,628	**38,953**

9. Liabilities

Liabilities (in KEUR)	Remaining Term: Less than 1 year	more than 1 year	thereof more than 5 years	Total	Thereof secured
Bonds	0	495,000	150,000	495,000	495,000
Previous year	0	420,000	420,000	420,000	420,000
Bank loans	7,996	34,523	0	42,519	42,519
Previous year	6,926	19,349	0	26,275	26,275
Trade payables	51,524	0	0	51,524	0
Previous year	58,020	0	0	58,020	0
Other liabilities	12,161	0	0	12,161	2,947
Previous year	10,649	7,539	1,505	18,188	3,472
Total liabilities	**71,681**	**529,523**	**150,000**	**601,204**	**540,466**
Previous year	75,595	446,888	421,505	522,483	449,747

Of the liabilities reported, a total of KEUR 540,466 is mainly secured as follows:

- Pledging of shares in Progroup AG and company shares in its main subsidiaries included in the consolidated financial statement of Progroup AG (Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, PROLOGISTIK GmbH, Proservice GmbH, Prowell sp. z o.o., Prowell s.r.o., Prowell S.A.S., Prowell Ltd.)
- Pledging of all bank deposits of Progroup AG in Germany
- Real estate liens (i. e. land charges or mortgages) on all substantial land and buildings of Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., and Prowell s.r.o.
- Securitization of insurance claims and receivables against affiliated companies by Progroup AG, Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., Prowell s.r.o. and Prowell Ltd. and assignment by way of security of receivables against affiliated companies by JH-Holding GmbH
- Assignment of technical equipment and machinery as well as other office equipment of Prowell GmbH, Propapier PM1 GmbH, Propapier PM2 GmbH, Propower GmbH, Prowell sp. z o.o., Prowell s.r.o. and Prowell Ltd.

In addition to the issuance of bonds (amount as at December 31, 2017: EUR 495 million), there still is a revolving credit facility in the amount of EUR 50 million which was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2017, the revolving credit facility was not utilized by the company or any of its subsidiaries.

Moreover, as at December 31, 2017, there are two PLN loans with an original amount of PLN 214 million. The loan balance was reduced through scheduled repayments to a total of PLN 177.6 million as at December 31, 2017. As at December 21, 2017, Prowell Ltd. entered into a loan agreement in the amount of GBP 70 million with Goldman Sachs Bank USA, and Progroup AG concluded a loan in the amount of EUR 38.5 million with IKB Bank AG. Both loans had not been utilized as at December 31, 2017.

The bonds, the Super Senior Revolving Credit Facility, the PLN loans, the GBP loan and the EUR loan are secured pari passu as mentioned above. In an Intercreditor Agreement the creditors under the Super Senior Revolving Credit Facility were granted priority satisfaction from possible proceeds of sale.

Trade payables are also secured under the customary retention of title.

KEUR 6,639 of other liabilities was attributable to tax liabilities (previous year: KEUR 3,052) and KEUR 658 to social security liabilities (previous year: KEUR 665).

As at December 31, 2016, there were liabilities arising from a hire purchase agreement for the corrugated board plant in Plössberg. This agreement was terminated as at December 31, 2017; accordingly, this liability does not exist as at the balance sheet date.

10. Deferred income

This item comprises the difference (KEUR 3,236) between the settlement value and the payment amount of the bond issued on December 8, 2015 (EUR 95 million) which will be released as adjustment to interest expenses through profit or loss over the term of the bond until May 1, 2022. Furthermore, it comprises a compensation payment received in the amount of KEUR 355 for a steam supply contract which is released to income over the contractual term until January 31, 2019.

II. Consolidated income statement

The consolidated income statement has been prepared under the total cost (nature of expense) method.

The Prowell S.r.l. in Drizzona, Italy, which was newly founded in 2017, was included in the consolidated financial statements for the first time as at March 28, 2017. Accordingly, the contributions to earnings attributable to this company are included in the consolidated income statement for the period from January 1 to December 31, 2017 for the first time.

1. Sales

Sales breakdown by country of origin

		2017	2016
		KEUR	KEUR
Domestic	Corrugated board	343,957	311,380
	Containerboard	99,729	114,256
	Other	40,605	29,726
Other European countries	Corrugated board	319,965	277,866
Total		**804,256**	**733,228**

2. Other operating income

This account includes income from the proportionate reversal of investment grants and allowances for fixed assets amounting to KEUR 252 (previous year: KEUR 252).

Other operating income also includes prior-period income of KEUR 12,567 (previous year: KEUR 11,204). This mainly comprises income from the reversal of provisions in the amount of KEUR 4,050 (previous year: KEUR 5,367) as well as income from increased prior-year energy tax refunds amounting to KEUR 5,927 (previous year: KEUR 1,511).

Furthermore, it includes currency translation gains of KEUR 3,930 (previous year: KEUR 1,920).

3. Cost of materials

The cost of materials for the financial year amounts to KEUR 430,481 (previous year: KEUR 371,550).

4. Personnel expenses

The personnel expenses for the financial year in a total amount of KEUR 68,326 (previous year: KEUR 61,423) include expenses for pensions amounting to KEUR 258 in the financial year (previous year: KEUR 134).

5. Amortization and depreciation of fixed intangible and tangible assets

The amortization and depreciation of the financial year amount to KEUR 50,032 (previous year: KEUR 47,372).

The significant changes compared to the previous year is due to an impairment loss in relation to an older corrugated board plant in the amount of KEUR 1,542.

6. Other operating expenses

This account includes prior-period expenses amounting to KEUR 1,935 (previous year: KEUR 2,548).

In addition, this account includes expenses of an extraordinary dimension in the amount of KEUR 6,240 (previous year: KEUR 14,835), largely consisting of bank charges and consulting fees already incurred in connection with the initiated refinancing which is intended to be completed in the second quarter of 2018. The previous year's figure includes additional costs in the amount of KEUR 13,914 which were caused by an unscheduled downtime of the combined heat and power plant of Propower GmbH in Eisenhüttenstadt.

Furthermore, the item contains rental and leasing expenses of KEUR 6,624 (previous year: KEUR 6,396) as well as expenses from currency translation of KEUR 3,340 (previous year: KEUR 3,405).

7. Other interest and similar income

This item amounts to KEUR 65 (previous year: KEUR 144) and does not include income from the discounting of provisions in the financial year 2017 (previous year: KEUR 33).

8. Interest and similar expenses

Overall, the amount of interest paid in financial year 2017 was KEUR 24,891 and the amount of interest received was KEUR 53. The expenses from discount unwinding of discounted pension provisions amounted to KEUR 21 as at December 31, 2017 (previous year: KEUR 39). Other provisions were not discounted in the financial year 2017 (previous year: KEUR 12).

9. Taxes on income

This account mainly includes trade tax and corporate income tax for the current financial year in the amount of KEUR 23,775 (previous year: KEUR 18,742) and refunds payments of trade tax and corporate income tax for previous years in the amount of KEUR 8 (previous year: KEUR 456). It also includes expenses arising from the adjustment of deferred tax assets in the amount of KEUR 4,228 (previous year: KEUR 593). In the financial year 2017, the total amount of tax paid was KEUR 17,939.

III. Other disclosures

1. Contingent liabilities, off-balance sheet transactions and other financial commitments

In addition to the bonds (amount as at December 31, 2017: EUR 495 million), there still is a revolving credit facility in the amount of EUR 50 million which was granted by a syndicate of banks (Super Senior Revolving Credit Facility). As at December 31, 2017, the revolving credit facility was not utilized by the company or any of its subsidiaries.

The bonds outstanding on the balance sheet date and the Super Senior Revolving Credit Facility, which can also be utilized by subsidiaries of Progroup AG, as well as the two loans in the amount of PLN 177.6 million as at December 31, 2017 granted to Prowell sp. z o. o. by Commerzbank Aktiengesellschaft, are secured by pledging all shares in Progroup AG and the company shares in its main subsidiaries, by pledging the bank deposits of the holding company, by assigning tangible fixed assets of the subsidiaries, by granting real estate liens and by assignments of certain receivables. Furthermore, certain covenants apply with regard to the loans and/or bonds.

The bonds, the Super Senior Revolving Credit Facility as well as two loans granted to Prowell sp. z o. o. by Commerzbank Aktiengesellschaft in the amount of PLN 177.6 million are secured pari passu as mentioned above. However, in an Intercreditor Agreement the creditors under the Super Senior Revolving Credit Facility were granted a priority satisfaction from any proceeds from realization.

Furthermore, the parent company has provided letters of comfort and guarantees for a total amount of KEUR 29,921 to various suppliers of subsidiaries. The parent company also has assumed joint and several co-liability vis-à-vis CommerzFactoring GmbH for obligations of Prowell GmbH from a forfaiting framework agreement.

The risk of enforcement should be regarded as low as none of the affiliates have a strained liquidity position.

The companies lease forklifts and trucks under operating lease agreements so that these assets are not recognized in the companies' financial statements. As at December 31, 2017, the remaining obligations from the lease agreements were KEUR 8,367. In addition, there were rental and lease agreements for movable assets as well as for the rental of factory buildings and areas as at the balance sheet date. As at December 31, 2017, the remaining obligations from these rental/lease agreements for subsequent years were KEUR 19,193 (nominal amount). The advantage of these agreements is that a lower amount of capital is tied up in the beginning than with a purchase and there is an absence of realization risk. Risks could arise from the lease agreement periods if the assets can no longer be fully utilized, although there are currently no indications of this.

As at the balance sheet date, there were steam supply contracts in place for the reliable supply of energy at fixed prices which did not lead, however, to a recognition of a provision for contingent losses. These agreements have terms of up to 8 years (December 31, 2025).

Due to specific contractual agreements for energy supply entered into as at the balance sheet date, total obligations for the following year 2018 amount to KEUR 9,766 (December 31, 2016: KEUR 11,908).

In the previous year, there was an obligation from a consignment agreement amounting to KEUR 39.

In addition, as at the balance sheet date there were contractual purchase commitments for waste paper and corrugated board base paper supplies; respective commitments for the following year are KEUR 45,760 (December 31, 2016: KEUR 46,485). Furthermore, there are outstanding purchase commitments for other services in the amount of KEUR 52,714 (December 31, 2016: KEUR 19,496).

2. Employees

The average number of employees during the financial year changed as follows:

	2017	2016
Salaried employees	248	230
Wage earners	792	748
Total	**1,040**	**978**

The disclosure only includes employees of consolidated companies.

3. List of companies included in the consolidated financial statements

Consolidated companies

	Percentage shareholding as at 12/31/2017 %
Prowell GmbH, Offenbach a. d. Queich, Germany	**100.00**
Prowell Verwaltungs GmbH, Offenbach a. d. Queich, Germany	**100.00**
Propapier PM1 GmbH, Burg, Germany	**100.00**
Prowell S. A. S., Douvrin, France*	**100.00**
Propower GmbH, Eisenhüttenstadt, Germany (formerly EnBW Propower GmbH, Eisenhüttenstadt, Germany)	**100.00**
Prologistik GmbH, Burg, Germany	**100.00**
Proservice GmbH, Offenbach a. d. Queich, Germany	**100.00**
Prowell s. r. o., Rokycany, Czech Republic*	**100.00**
Prowell Sp. z o.o., Stryków, Poland*	**100.00**
Propapier PM2 GmbH, Eisenhüttenstadt, Germany*	**100.00**
Prowell Ltd., Ellesmere Port, England*	**100.00**
Prowell S.r.l., Drizzona, Italy*	**100.00**

*indirect equity interest

4. Unconsolidated affiliated companies

	Percentage shareholding as at 12/31/2017 %	Equity as at 12/31/2017 KEUR	Net income/loss for 2017 KEUR
Profund GmbH, Offenbach a. d. Queich, Germany	100.00	12	0
Projekt 3 CZ Beteiligungs GmbH, Offenbach a. d. Queich, Germany*	100.00	23	0

*indirect equity interest

5. Holding Company

The holding company of the largest and smallest consolidation group is JH-Holding GmbH, Neustadt a. d. Weinstrasse, Germany. The consolidated financial statements of JH-Holding GmbH are submitted to the operator of the Bundesanzeiger (Federal Gazette) for publication.

6. Subsidiaries

Propapier PM1 GmbH, Burg, Germany, Propapier PM2 GmbH, Eisenhüttenstadt, Germany, Propower GmbH, Eisenhüttenstadt, Germany and Prowell GmbH, Offenbach a. d. Queich, Germany, have made use of the exemption pursuant to section 264(3) HGB.

7. Emission allowances

At the balance sheet date, the Group held 581,284 CO2 emission allowances (allocation for 2017: 497,472 CO2 emission allowances). These were acquired free of charge as part of a public allocation. The allowances are recognized at their reminder value. The quoted market price as at the balance sheet date was approximately EUR 8 per certificate (December 31, 2016: approximately EUR 7 per certificate). The fair value of the allowances recognized at a carrying amount of KEUR 0 therefore amounted to EUR 4.0 million (December 31, 2016: EUR 3.5 million).

8. Cash flow statement

The cash flow statement has been prepared in accordance with the provisions of DRS 21 (German Accounting Standard—GAS 21) using the indirect method. Cash funds have been exclusively defined as cash and cash equivalents.

9. Proposal of the appropriation of net income

The Management Board proposes to the general meeting of shareholders to distribute to the shareholders from the net retained profits of Progroup AG reported in the annual financial statements for the 2017 financial year in an amount of EUR 168,315,788.56 dividend of EUR 1.00 (gross) per share entitled to dividends, i. e. a total amount of EUR 7,588,236.00, and to carry the remaining net retained profit in the amount of EUR 160,727,552.56 forward to new account.

10. Management Board

The following were members at the Management Board in the financial year:

Jürgen Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstrasse, Germany (Chairman of the Management Board)

Dr. Volker Metz, Dipl.-Kfm., HochdorfAssenheim, Germany (CFO)

Philipp Kosloh, Dipl.-Ing., Speyer am Rhein, Germany (Deputy Management Board Member)

Maximilian Heindl, Dipl.-Wirt.-Ing., Neustadt a. d. Weinstrasse, Germany (Deputy Management Board Member)since August 1, 2017

11. Supervisory Board

The Supervisory Board was composed as follows during the financial year:

Rainer Dietmann, Lawyer, Partner of Rittershaus Rechtsanwälte Partnerschaftsgesellschaft mbB, Mannheim, Germany (Chairman)

Prof. Dr. Rudolf Wimmer, Vice President of Witten/Herdecke University, Vienna, Austria (Vice Chairman)

Prof. Dr. Hermut Kormann, Honorary Professor at Leipzig University and at Zeppelin University Friedrichshafen, Germany

12. Total remuneration

The Management Board's total remuneration in the financial year for exercising its responsibilities in the holding company and the subsidiaries was KEUR 5,636 (2016: KEUR 3,723).

Supervisory Board remuneration in 2017 amounted to KEUR 215 (2016: KEUR 68).

13. Auditors' fees

The group auditor's fees recognized as an expense in the financial year amounted to KEUR 218 (2016: KEUR 208) for audit services and KEUR 38 (2016: KEUR 32) for other assurance services.

Furthermore, expenses for other services amounted to KEUR 320 (previous year: KEUR 0).

IV. Report on subsequent events

On January 16, 2018, Prowell GmbH acquired a plot of land in Offenbach with a value of EUR 1.25 million.

No further operative or structural changes or business matters have occurred after the balance sheet date that have a material effect on the net assets, financial position and results of operation of Progroup AG.

Offenbach a. d. Queich, Germany, February 13, 2018

Management Board

Jürgen Heindl	Dr. Volker Metz	Philipp Kosloh	Maximilian Heindl
……	……	……..	……..

Consolidated Fixed Asset Movement
Schedule for 2017

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED FIXED ASSET-MOVEMENT SCHEDULE for 2017

		Acquisition or manufacturing cost						Amortization/depreciation					Net book values	
		01/01/2017	Exchange differences	Additions	Disposals	Retransfers	12/31/2017	01/01/2017	Exchange differences	Additions	Disposals	12/31/2017	12/31/2017	12/31/2016
		€	€	€	€	€	€	€	€	€	€	€	€	€
A.	Fixed assets													
I.	Intangible assets													
	Purchased concessions, industrial property and similar rights and assets, and licenses in such rights and assets	31,105,399.14	6,966.66	240,693.13	0.00	0.00	31,353,058.93	8,752,911.22	5,190.98	2,820,579.53	0.00	11,578,681.73	19,774,377.20	22,352,487.92
		31,105,399.14	6,966.66	240,693.13	0.00	0.00	31,353,058.93	8,752,911.22	5,190.98	2,820,579.53	0.00	11,578,681.73	19,774,377.20	22,352,487.92
II.	Tangible assets													
1.	Land and buildings*	276,204,668.26	3,527,314.54	6,378,665.14	0.00	9,636,992.79	295,747,640.73	101,199,771.95	1,125,399.49	8,925,895.17	0.00	111,251,066.61	184,496,574.12	175,004,896.31
2.	Technical equipment and machinery	833,878,255.03	2,701,797.01	7,950,090.16	149,690.00	13,215,598.80	857,596,051.00	423,911,109.19	1,675,692.14	35,110,421.03	149,690.00	460,547,532.36	397,048,518.64	409,967,145.84
3.	Other equipment, factory and office equipment.....	19,080,702.98	57,059.56	2,149,143.04	390,051.57	132,307.08	21,029,161.09	12,826,227.49	45,757.38	1,633,871.12	380,573.57	14,125,282.42	6,903,878.67	6,254,475.49
4.	Prepayments and construction in process	26,238,988.67	706,721.48	30,840,573.57	540,043.98	-22,984,898.67	34,261,341.07	0.00	0.01	1,541,637.21	0.00	1,541,637.22	32,719,703.85	26,238,988.67
		1,155,402,614.94	6,992,892.59	47,318,471.91	1,079,785.55	0.00	1,208,634,193.89	537,937,108.63	2,846,849.02	47,211,824.53	530,263.57	587,465,518.61	621,168,675.28	617,465,506.31
III.	Financial assets													
	Shares in affiliated companies ...	37,375.00	0.00	0.00	0.00	0.00	37,375.00	0.00	0.00	0.00	0.00	0.00	37,375.00	37,375.00
		37,375.00	0.00	0.00	0.00	0.00	37,375.00	0.00	0.00	0.00	0.00	0.00	37,375.00	37,375.00
		1,186,545,389.08	**6,999,859.25**	**47,559,165.04**	**1,079,785.55**	**0.00**	**1,240,024,627.82**	**546,690,019.85**	**2,852,040.00**	**50,032,404.06**	**530,263.57**	**599,044,200.34**	**640,980,427.48**	**639,855,369.23**

* including buildings on leasehold land

Consolidated Cash Flow Statement
for the Period
from January 1 to December 31, 2017

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED CASH FLOW STATEMENT
FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2017

		2017	2016
		K€	K€
1.	**Cash flows from operating activities**		
	Consolidated net income/loss for the period	72,412	61,404
	Amortization and depreciation of fixed assets	50,032	47,372
	Increase (+)/decrease (−) in provisions	6,183	− 6,709
	Other non-cash expenses (+)/income (−)	− 1,228	− 496
	Increase (−)/decrease (+) in inventories, trade receivables and other assets*	− 32,056	3,049
	Increase (+)/decrease (−) in trade payables and other liabilities*	− 10,431	9,983
	Gain(−)/loss(+) on disposal of fixed assets	0	510
	Interest expenses (+)/income (−)	23,613	25,190
	Expenditure (+)/income (−) of exceptional size or incidence	6,240	14,835
	Income tax expenses (+)/income (−)	28,058	19,793
	Cash payments (−) relating to expenditure of exceptional size or incidence	− 2,178	− 11,736
	Income taxes paid (−)	− 17,939	− 10,631
	Cash flows from operating activities	**122,706**	**152,564**
2.	**Cash flows from investing activities**		
	Proceeds (+) from disposal of intangible and tangible fixed assets	150	144
	Payments (−) to acquire intangible fixed assets	− 176	− 472
	Payments (−) to acquire tangible fixed assets	− 47,762	− 22,976
	Interest received (+)	53	103
	Cash flows from investing activities	**− 47,735**	**− 23,201**
3.	**Cash flows from financing activities**		
	Proceeds (+) from the issuance of bonds and borrowings	173,187	2,081
	Cash repayments (−) of bonds and borrowings	− 83,642	− 75,847
	Proceeds (+) from grants received	0	313
	Cash payments (−) relating to expenditure of exceptional size or incidence	− 3,317	− 4,109
	Interest paid (−)	− 24,891	− 26,473
	Dividends paid to shareholders of the parent entity (−)	− 57,519	− 6,222
	Cash flows from financing activities	**3,818**	**− 110,257**
4.	**Cash funds at end of period**		
	Net change in cash funds	78,789	19,106
	Effect on cash funds of exchange rate movements	1,787	− 2,498
	Cash funds at beginning of period	37,370	20,762
	Cash funds at end of period	**117,946**	**37,370**
5.	**Composition of cash funds**		
	Cash and cash equivalents	117,946	37,370
	Cash funds at end of period	117,946	37,370

* Not attributable to investing or financing activities

Consolidated Statement of Changes in Equity for 2017

PROGROUP AG, OFFENBACH A. D. QUEICH, GERMANY
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR 2017

	Subscribed capital	Capital reserve	Revenue reserves	Consolidated net retained profits[1]	Currency translation adjustment	Group equity
	K€	K€	K€	K€	K€	K€
January 1, 2016	7,588	75,414	1,408	123,284	910	208,604
Distribution of profit	0	0	0	− 6,222	0	− 6,222
Consolidated net profit for the year	0	0	0	61,404	0	61,404
Other changes	0	0	0	0	−4,177	− 4,177
December 31, 2016	**7,588**	**75,414**	**1,408**	**178,466**	**−3,267**	**259,609**
January 1, 2017	**7,588**	**75,414**	**1,408**	**178,466**	**−3,267**	**259,609**
Distribution of profit	0	0	0	− 57,519	0	− 57,519
Consolidated net profit for the year	0	0	0	72,411	0	72,411
Other changes	0	0	0	0	2,813	2,813
December 31, 2017	**7,588**	**75,414**	**1,408**	**193,358**	**− 454**	**277,314**

(1) The consolidated net retained profits in the amount of the deferred tax assets recognized in Progroup AG's annual financial statements as well as from the measurement of pension obligations are subject to a distribution restriction (2017: €4.4 million; 2016: €10.3 million). As of December 31, 2017, €164.7 million (December 31, 2016: €148.0 million) are available for distribution to the shareholders from the annual financial statements of Progroup AG.

The following auditor's report (*Bestätigungsvermerk*) has been issued in accordance with Section 322 of the German Commercial Code (*Handelsgesetzbuch*) on the consolidated financial statements and group management report (*Konzernlagebericht*) of Progroup AG as of and for the fiscal year ended December 31, 2017. The group management report is neither included nor incorporated by reference in this annual report.

INDEPENDENT AUDITOR'S REPORT

To Progroup AG, Offenbach a.d. Queich

Audit Opinions

We have audited the consolidated financial statements of Progroup AG, Offenbach a.d. Queich, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31. December 2017**,** and the consolidated income statement, consolidated statement of changes in equity and consolidated cash flow statement for the financial year from 1. January to 31. December 2017, and notes to the consolidated financial statements, including the recognition and measurement policies presented therein. In addition, we have audited the group management report of Progroup AG for the financial year from 1. January to 31. December 2017.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the requirements of German commercial law and give a true and fair view of the assets, liabilities and financial position of the Group as at 31. December 2017 and of its financial performance for the financial year from 1. January to 31. December 2017 in compliance with German Legally Required Accounting Principles, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to Article 322 paragraph 3 sentence 1 Handelsgesetzbuch: German Commercial Code, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

Other Information

The executive directors are responsible for the other information.

The letter to investors is expected to be made available to us after the date of the auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with the requirements of German commercial law, and that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with German Legally Required Accounting Principles. In addition the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to

modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with German Legally Required Accounting Principles.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Mannheim, February 13, 2018

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Ralf Worster	ppa. Martin Knoll
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

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Dr. Volker Metz (CFO)
Maximilian Heindl (Deputy Member of the Executive Board)
Philipp Kosloh (Deputy Member of the Executive Board)

pro group

The Power of Innovation