



**DILLINGER** 

Executive Summary  
of the **2016**  
Financial Statement



# Key figures

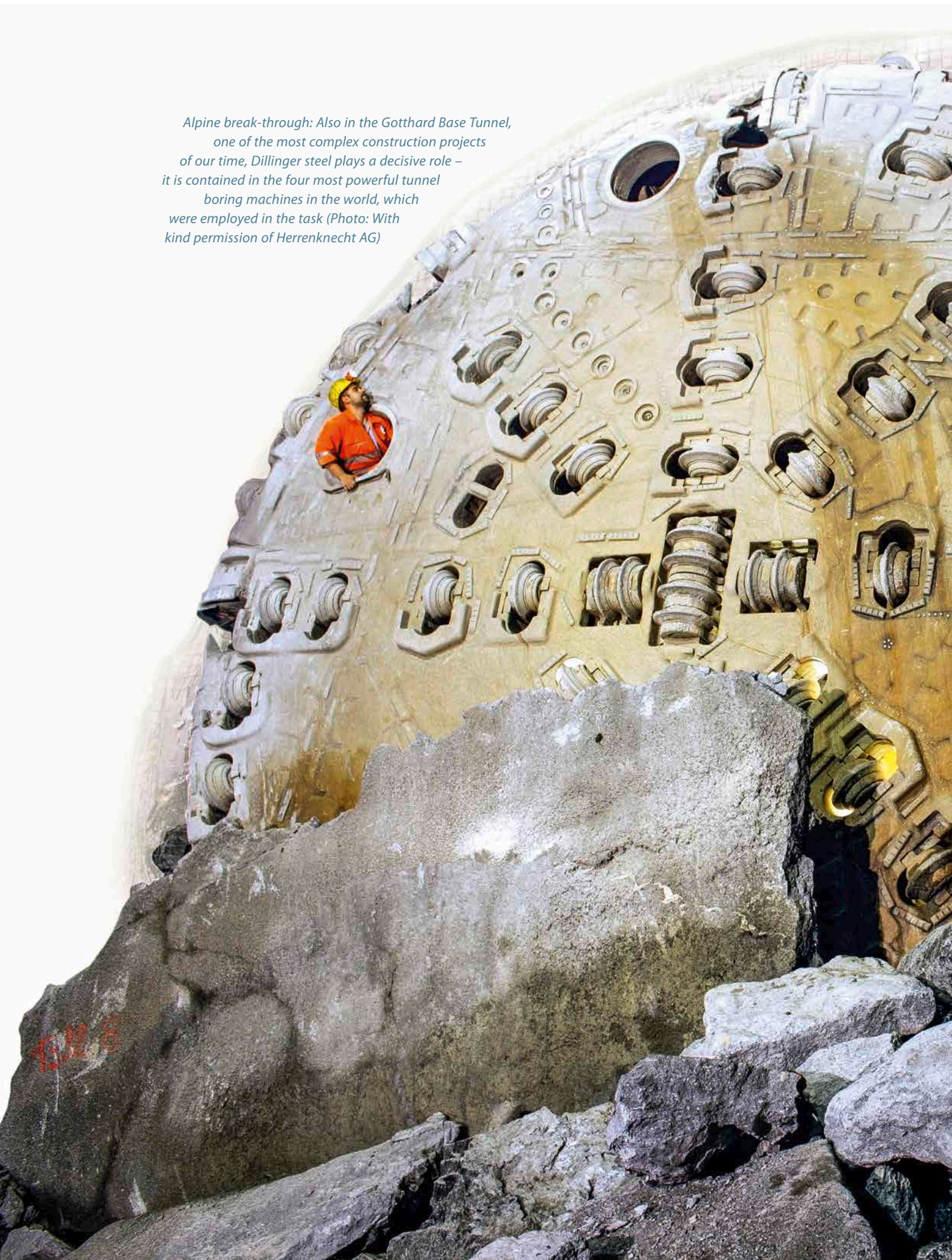
	2015	2016	Veränderung
<b>Hot metal purchase in kt *</b>	2 060	<b>1 921</b>	- 6.7 %
<b>Crude steel production in kt</b>	2 401	<b>2 267</b>	- 5.6 %
<b>Total production of heavy plate in kt</b>	1 856	<b>1 882</b>	+ 1.4 %
of which produced in Dillingen in kt	1 296	<b>1 284</b>	- 0.9 %
of which produced in Dunkerque in kt	560	<b>598</b>	+ 6.8 %
<b>Total shipment in kt</b>	2 451	<b>2 603</b>	+ 6.2 %
of which heavy plate in kt	1 843	<b>1 898</b>	+ 3.0 %
of which semi-finished product in kt	608	<b>705</b>	+ 16.0 %
<b>Sales by country in millions of €</b>			
<b>Germany</b>	669	<b>684</b>	
<b>France</b>	289	<b>300</b>	
<b>Other EU countries</b>	396	<b>372</b>	
<b>Other exports</b>	378	<b>280</b>	
<b>Total sales</b>	1 732	<b>1 636</b>	- 5.5 %
<b>Total workforce</b> (excluding trainees) as of 31 Dec.	5 081	<b>5 109</b>	
<b>Personnel expenses in millions of €</b>	344	<b>363</b>	
<b>Balance sheet total in millions of €</b>	2 943	<b>2 990</b>	
<b>Fixed assets in millions of €</b>	2 019	<b>2 074</b>	
<b>Investments</b>	114	<b>69</b>	
<b>Shareholders' equity in millions of €</b>	1 812	<b>1 707</b>	
<b>EBITDA in millions of €</b>	110	<b>- 37</b>	
<b>EBIT in millions of €</b>	57	<b>- 98</b>	
<b>Net result before profit transfer</b> in millions of €	8	<b>- 105</b>	
<b>Cash flow from operations</b> in millions of €	188	<b>80</b>	

\* Total production ROGESA Roheisengesellschaft Saar mbH: 3 980 kt (2015: 4 429 kt).

Cover photo:

Built with Dillinger steel: The new double-arch bridge crossing the river Rhine

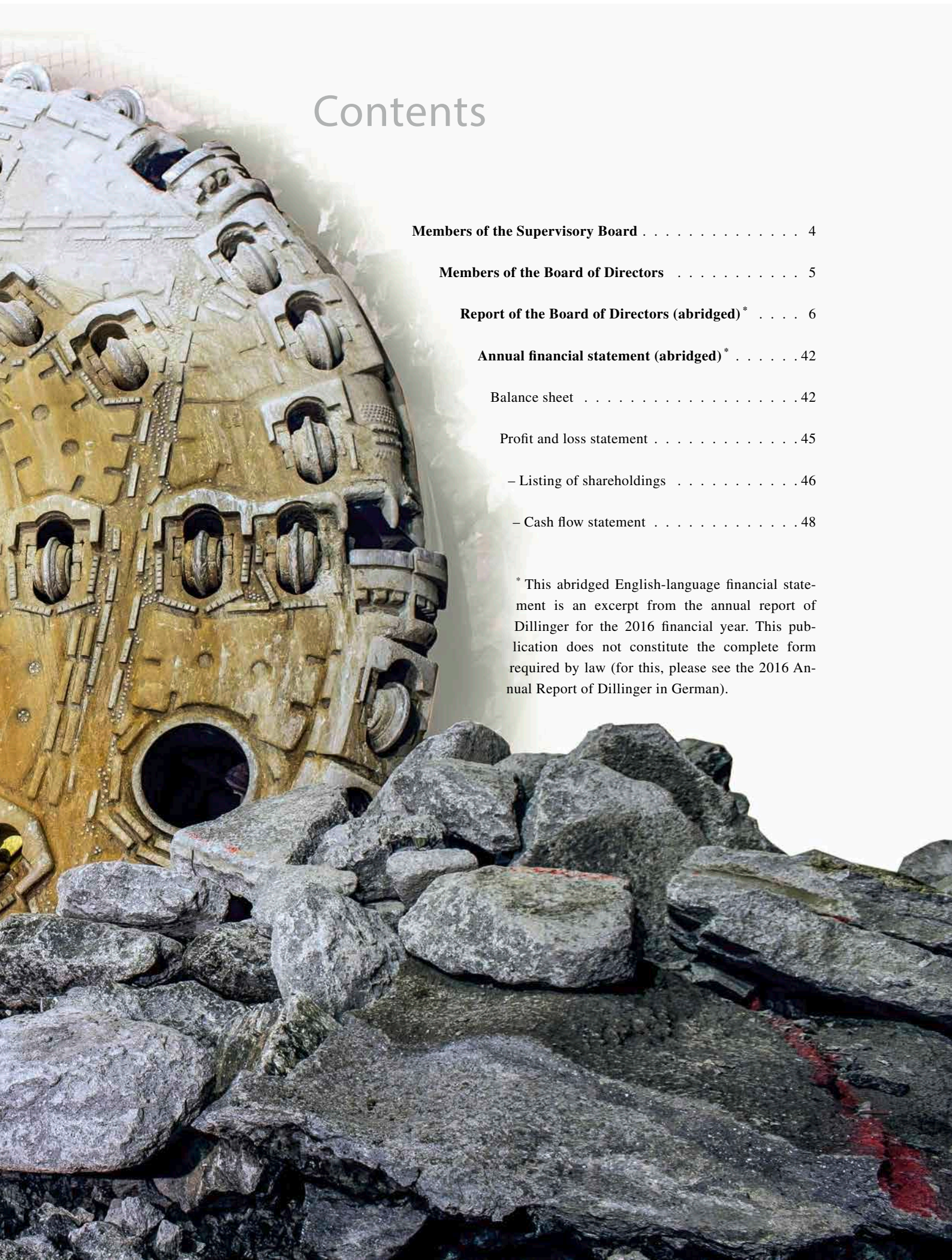
*Alpine break-through: Also in the Gotthard Base Tunnel, one of the most complex construction projects of our time, Dillinger steel plays a decisive role – it is contained in the four most powerful tunnel boring machines in the world, which were employed in the task (Photo: With kind permission of Herrenknecht AG)*



# Contents

<b>Members of the Supervisory Board</b> . . . . .	4
<b>Members of the Board of Directors</b> . . . . .	5
<b>Report of the Board of Directors (abridged)*</b> . . . . .	6
<b>Annual financial statement (abridged)*</b> . . . . .	42
Balance sheet . . . . .	42
Profit and loss statement . . . . .	45
– Listing of shareholdings . . . . .	46
– Cash flow statement . . . . .	48

\* This abridged English-language financial statement is an excerpt from the annual report of Dillinger for the 2016 financial year. This publication does not constitute the complete form required by law (for this, please see the 2016 Annual Report of Dillinger in German).



# Members of the Supervisory Board

**Dr. MICHAEL H. MÜLLER, Saarbrücken**

Chairman  
*Chairman of the Board of Directors and  
of the Curatorship for the Montan-Stiftung-Saar*

**JÖRG KÖHLINGER, Frankfurt**

1st Deputy Chairman (as of 18 March 2016)  
*Trade Union Secretary/District Manager  
of IG Metall central regional management*

**MICHEL WURTH, Sandweiler**

2nd Deputy Chairman  
*Chairman of the Supervisory Board  
ArcelorMittal Luxembourg S. A.*

**ARIBERT BECKER, Rehlingen**

(as of 18 March 2016)  
*Member of the Executive Board of the  
Curatorship for the Montan-Stiftung-Saar*

**Dr. BERND BERGMANN, Wallerfangen**

*Board of Directors Aktien-Gesellschaft  
der Dillinger Hüttenwerke (ret.)*

**Prof. Dr. HEINZ BIERBAUM, Saarbrücken**

*Director of the INFO Institute, Saarbrücken*

**JÜRGEN BLUDAU, Dillingen**

*Member of the Group Works Council and  
Deputy Chairman of the Works Council of  
Aktien-Gesellschaft der Dillinger Hüttenwerke*

**CARL DE MARÉ, Belsele**

*Vice-President of ArcelorMittal,  
Chief Technical Officer Flat Carbon Europe*

**MICHAEL FISCHER, Dillingen**

*Chairman of the Group Works Council and  
Chairman of the Works Council of  
Aktien-Gesellschaft der Dillinger Hüttenwerke*

**ROBERT HIRY, Rehlingen-Siersburg**

*Primary Authorized Representative  
for IG Metall Völklingen Administrative Office*

**EUGEN ROTH, Merchweiler**

*Deputy Chairman of Deutscher Gewerkschaftsbund  
Rheinland-Pfalz/Saarland*

**FRIEDEL SCHMIDT, Merten**

*Member of the Group Works Council  
and the Works Council of Aktien-Gesellschaft  
der Dillinger Hüttenwerke*

**STEVE WAMPACH, Born**

*CFO – ArcelorMittal Europe – Flat Products –  
Business Division North*

**ERICH WILKE, Königstein/Taunus**

*Bank Executive (ret.)*

**HENNER WITTLING, Ottweiler**

*Member of the Curatorship for the Montan-Stiftung-Saar*

# Members of the Board of Directors

**FRED METZKEN**

Spokesperson for the Board of Directors  
(as of 18 March 2016) and Chief Financial Officer

**Dr. GÜNTER LUXENBURGER**

Chief Sales Officer

**Dr. BERND MÜNNICH**

Chief Technical Officer

**PETER SCHWEDA**

Chief Human Resources Officer and Labor Director



*from left to right:  
Dr. Bernd Münnich, Dr. Günter Luxenburger, Fred Metzken, Peter Schweda*

# Report of the Board of Directors (abridged)

## The company's fundamentals

The core business of Aktien-Gesellschaft der Dillinger Hüttenwerke, in the following referred to as Dillinger, is the manufacture and sale of heavy plate in the form of normal and pipe plate. This entails on the one hand the activities of an integrated steel plant, including the production of coke and hot metal through the subsidiaries Zentralkokerei Saar GmbH (ZKS) and ROGESA Roheisengesellschaft Saar mbH (ROGESA), both jointly held with Saarstahl AG (SAG), and the production of liquid steel and semifinished products. On the other hand, in downstream stages, trading, flame-cutting and treatment businesses offer additional services and customized solutions in sales, in the processing of heavy plate, and in other steel products.

Also affiliated with Dillinger are transport and logistics companies that are involved in both raw materials transport and the shipping of finished products.

Dillinger holds an interest in both Saarstahl AG, Völklingen, and Europipe GmbH, Mülheim/Ruhr. Beyond this, these companies are also involved in operational activity with Dillinger – either through involvement in the hot metal production and buying phase or as a buyer and processor of heavy plate steel. The wholly owned subsidiary Steelwind Nordenham, which manufactures monopile foundation systems for the offshore wind market in a plant on the Weser river estuary, offers products in a processing depth that goes beyond that of heavy plate.

SHS - Stahl-Holding-Saar GmbH & Co. KGaA (SHS) is the direct and indirect majority shareholder of Dillinger as well as of its affiliated company, Saarstahl AG. SHS is the wholly owned subsidiary of Montan-Stiftung-Saar, and the two companies cooperate closely under its umbrella. The wholly owned SHS subsidiary SHS Logistics GmbH consolidates the logistics activities of the SHS Group with the goal of leveraging additional synergies in processes and costs. The same goal is pursued by SHS Services GmbH, likewise a wholly owned subsidiary of SHS. It performs services in other purchasing (e.g. raw materials for steel plants) for the companies of the SHS Group.

## Financial report

### Overall economic and sector-related conditions

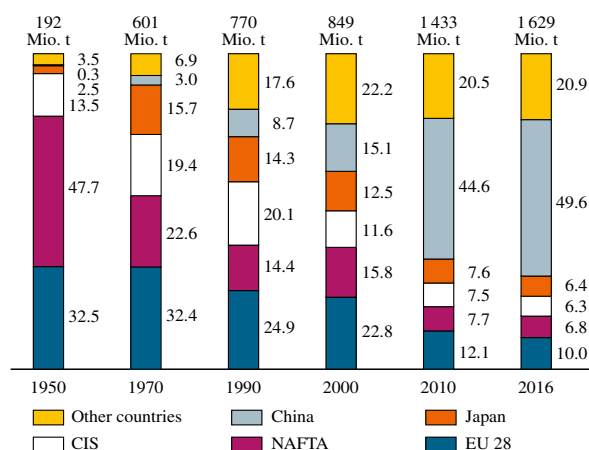
#### World economy: growth continues to lack impetus

The world economy continued to perform below expectations in 2016. As in 2015, growth of gross domestic product (GDP) was only slightly above the “recession threshold” of 3 %. Reasons for the development included the ongoing recession in the emerging markets Russia and Brazil as well as the merely weak upward movement of economic activity in the developed economies. Worldwide economic activity in industrial goods proved to be even more weak in 2015, which expressed itself in slow growth of global industrial production and led to widespread restraint of private investment.

#### Europe solid overall

In the euro area and in the EU, economic performance experienced solid growth in 2016 at a rate of 1.8 % compared to the previous year. This was also noticeable in the labor market: Unemployment in the EU fell in November 2016 to 8.3 % (euro area: 9.8 %). German economic growth in 2016 exceeded that of the relatively strong previous years with an increase of 1.9 %. In particular, consumer expenditures for private households and the government as well as housing construction contributed to the upturn. Due to the stagnant demand in world markets, on the other hand, exports made no noticeable contribution to growth.

Growth of worldwide crude steel production by region (share in %)





**Steel market characterized by high level of imports**

After crude steel production declined worldwide by 2.8 % in 2015, a slight increase of almost 1 %, to 1.63 billion metric tons, was posted for 2016. A global structural crisis persisted as the utilization of capacities on the crude steel side, at 72 %, continued to be at an historic low. The demand side was better than expected, due in particular to growth in China (growth amounting to 3 %). However, important steel markets outside China disappointed with respect to growth in volume. Particularly in the United States, Russia and, most distinctly, in Brazil (- 9.2 %), downward movements continued without slowing in comparison to the weak 2015. Global steel demand was supported, however, by the economic recovery in the EU as well as a robust upswing in important ASEAN countries. Global steel exports remained at a high level in 2016. The focus here remained on Chinese steel exports, which, despite numerous trade cases and a stable domestic demand situation, have been maintained at a high level.

The current status of the steel market in the EU is characterized by slight growth in the market supply of rolled steel of almost 2 %. Steel manufacturers in the EU were not able to benefit from market growth: Crude steel production by EU steel manufacturers fell by 3 %, whereas imports into the EU increased once again by 7 % in 2016 after 3 years with double-digit growth despite the anti-dumping duties introduced for some steel products. The share of imports, at 23 %, exceeded even the high level from the boom year 2007. The growth had an impact on the utilization of plant capacities, which most recently averaged just 76 % across all countries.

**Heavy plate market remains highly competitive**

The heavy plate market was also characterized by high overcapacities and a correspondingly low utilization of capacities in 2016: The average utilization of European heavy plate manufacturers' plant capacities declined once again from an already low 61 % in the previous year to 58 %. Heavy plate consumption (normal plate) in Europe once again reached roughly the level of 2011, but still remained far from the volumes consumed in 2008 and earlier. Non-European manufacturers meanwhile continued the trend of increasing their market shares, while the deliveries of the EU 28 producers once again declined considerably. Heavy plate steel imports into the EU doubled between 2013 and 2016. Whereas Chinese imports

declined here as a result of the EU trade case opened for heavy plate steel from China in February 2016 and the accompanying punitive tariffs that were later pronounced, they were still at a high level. At the same time, other countries such as India, South Korea and Ukraine once again sharply increased their delivery quantities compared to the previous year.\*

Prices on the heavy plate market continued to be at a very low level, and the recovery in prices setting in during the second half of the year was not enough to compensate for the increases in raw material costs. Due to continued low oil and gas prices and the resulting sharply curtailed investments, the line pipe and offshore oil and gas customer segments were dominated by a fierce battle for volumes with corresponding price pressure. Boiler and pressure vessel construction also continued to be characterized by declining investment and therefore lower demand. Construction machinery manufacturers and, at times, machine manufacturing experienced relatively stable current activity. The offshore wind power sector developed positively, even though the sector as a whole is under significant cost and price pressure due to increasing cuts in government guarantees for electricity prices.

**Business performance at Dillinger**

The 2016 financial year was characterized by extraordinarily unfavorable underlying conditions: As a result of severe overcapacities in the heavy plate market and pressure from high imports, Dillinger was not able to avoid price pressure even in the high-quality grades segment. Given the difficult market situation, however, the company was quite successful in comparison to the market average in securing sufficient utilization of capacities. Particularly helpful here was the booking for the Nord Stream project.

As a result, Dillinger was able to post substantial incoming orders that considerably exceeded that of the previous year despite erratic demand in pipe plate. As anticipated, incoming orders for the normal plate segment were also more stable and likewise were on average above the previous year's level. Nonetheless, the financial year

\* Based in each case on the first nine months of the year

*Giant project:  
The 90-day revamping  
of the ROGESA Furnace No. 4  
with a total investment  
of 150 million Euro*

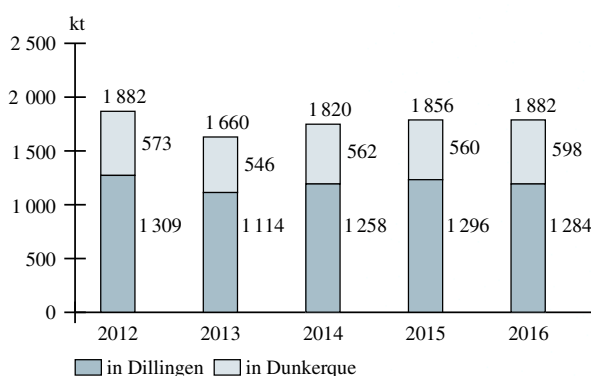
was concluded with a loss, whereby the result – due to dramatic declines in revenue and a changed expense and income structure – was significantly below the previous year’s projections.

Strategic investments as well as the optimization and modernization of technical equipment were continued according to plan: the start of operation of continuous casting machine CC 6 during the year under review represented the conclusion of a major investment project spanning multiple years.

### **Good utilization of production plant capacities despite blast furnace relining**

In view of the expected reductions in hot metal production due to the regularly scheduled relining of blast furnace 4 in 2016, slabs were stockpiled during the previous year so that – despite the planned reductions as well as an unplanned shutdown in the Dillingen rolling mill at the end of the year – the previous year’s production of heavy plate (Dillingen and Dunkirk) was in fact exceeded and the plant capacities were consistently well utilized.

#### **Change in heavy plate production**



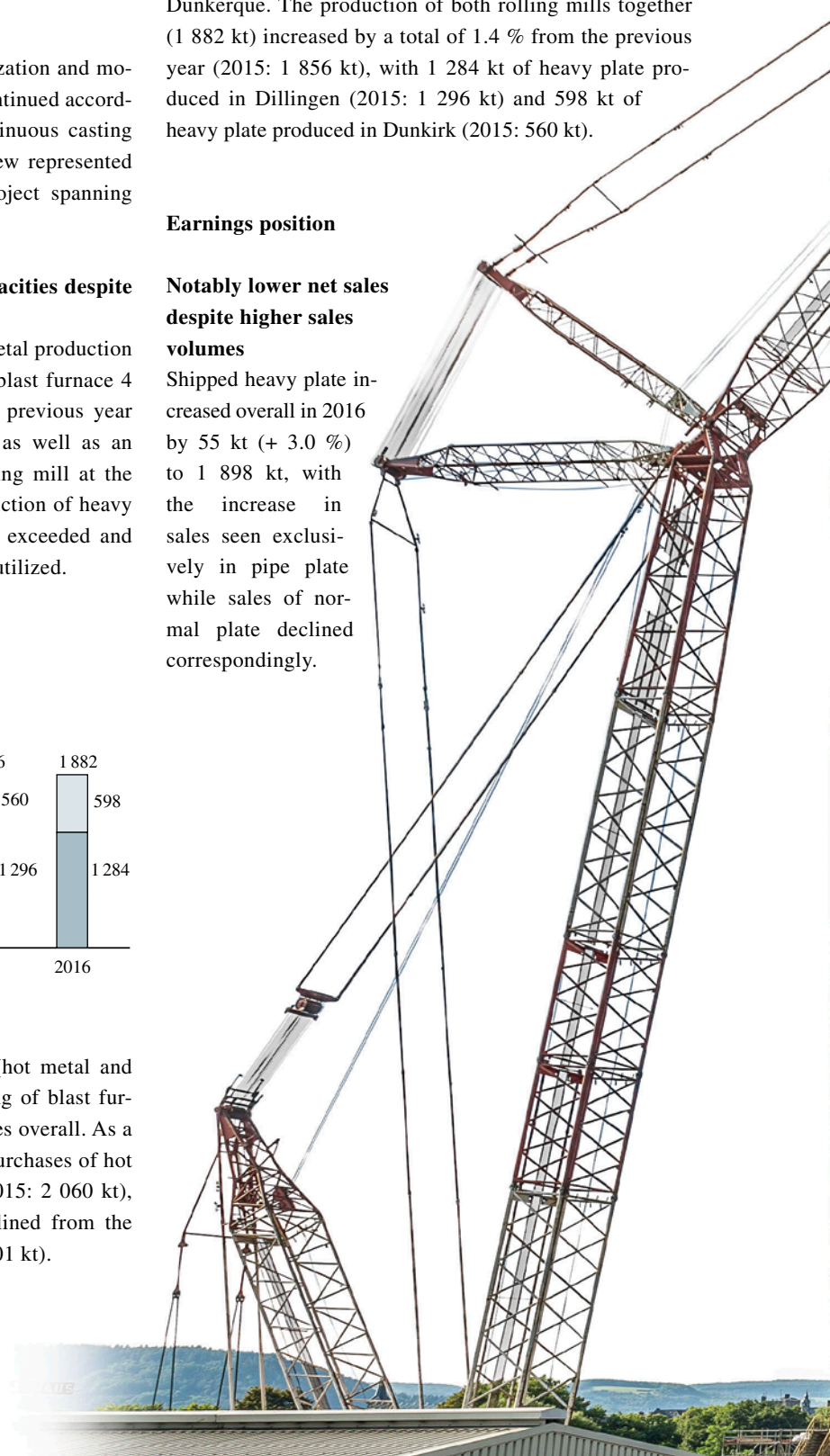
Production figures in the primary stages (hot metal and steel production) were – due to the relining of blast furnace 4 – below the previous year’s quantities overall. As a consequence, there were declines in both purchases of hot metal, which fell by 6.8 % to 1 921 kt (2015: 2 060 kt), and in crude steel production, which declined from the previous year by 5.6 % to 2 267 (2015: 2 401 kt).

As in previous years, steel production levels satisfied the slab requirements for the rolling mill in Dillingen as well as most of the requirements of Dillinger France in Dunkerque. The production of both rolling mills together (1 882 kt) increased by a total of 1.4 % from the previous year (2015: 1 856 kt), with 1 284 kt of heavy plate produced in Dillingen (2015: 1 296 kt) and 598 kt of heavy plate produced in Dunkirk (2015: 560 kt).

### **Earnings position**

#### **Notably lower net sales despite higher sales volumes**

Shipped heavy plate increased overall in 2016 by 55 kt (+ 3.0 %) to 1 898 kt, with the increase in sales seen exclusively in pipe plate while sales of normal plate declined correspondingly.

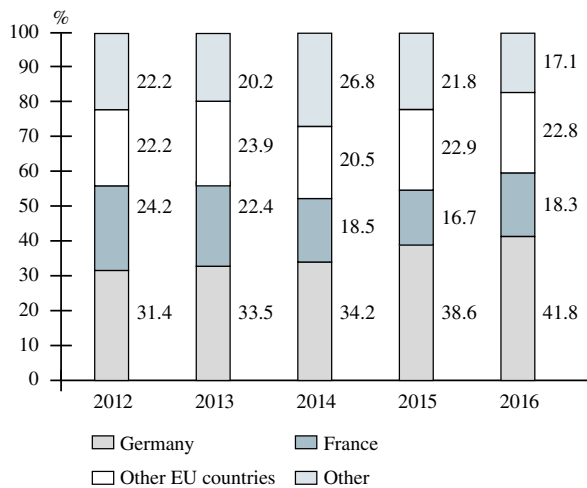




In line with expectations, the net sales level of the previous year was not achieved in 2016; the dramatic decline in revenue also could not be countered by the higher sales in heavy plate steel and semifinished products. Worldwide overcapacities coinciding with significantly higher imports from China and other countries in Asia and eastern Europe caused sales revenues to decline sharply once again in the entire heavy plate segment. Developments in raw materials prices, and particularly the volatile price increases here in the 4th quarter, could only be passed on to a minimal degree in the selling prices.

Under these circumstances, net sales fell from € 1 732 million in the previous year to € 1 636 million (- 5.5 %). Distribution of net sales by geographic markets shows that, with a higher revenue share domestically and in France, the share in other European Union countries stagnated, while falling outside the EU.

**Geographic distribution of sales**



**Earnings still severely depressed**

Under the difficult and at times even further worsened market conditions, Dillinger concluded the 2016 financial year with earnings before interest and taxes (EBIT) of - € 98 million compared with € 57 million in 2015, and earnings before interest, taxes, depreciation and amortization (EBITDA) of - € 37 million (2015: € 110 million). The significantly negative earnings are primarily the result of enormous pressure on revenue and margins as well as a number of increased expenses.

Material intensity increased significantly here by 6.3 percentage points compared to the previous year, amounting in 2016 to 72.2 %. The reasons for this, in addition to the growth of sales/material input prices, are in particular the allocation of value adjustments in provisions at Dillinger itself as well as at the production units ROGESA and ZKS. The relining of blast furnace 4 in 2016 also resulted in the proportional expenditures by Dillinger for repair and maintenance having an indirect impact on material intensity.

Other operating revenue (€ 27 million) slightly exceeded that of the previous year (€ 25 million).

At € 363 million, personnel expenses were 5.5 % higher than the previous year's level (2015: € 344 million). The ratio of personnel expenses to total output in 2016 amounted to 22.8 % compared to 19.4 % in the previous year.

Depreciation and amortization of intangible and tangible fixed assets amounting to € 61 million exceeded the previous year's level (€ 53 million) due to the investment and scheduled depreciation process.

With administrative and general operating expenses remaining nearly constant, other operating expenses decreased by € 29 million, almost exclusively due to lower marketing costs (- € 27 million).

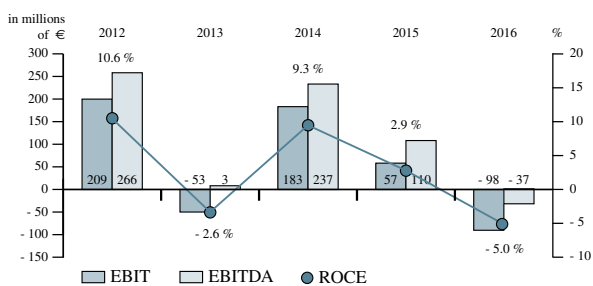
A € 4 million decrease in expenses due to assumed losses in 2016 was offset by a € 2 million decrease in income from dividends, which resulted in a slight improvement in income from investments of - € 11 million (2015: - € 13 million).

Net interest income improved by € 42 million to - € 6 million (2015: - € 48 million), which was due exclusively to lower interest expenditures from the discounting of long-term provisions compared to the previous year – above all from the one-off effect of the changed rules for discounting pension provisions.

After deduction of taxes and compensatory payment to external shareholders, net loss for the year before profit transfer amounted to - € 105 million (2015: € 8 million net result for the year before profit transfer).

This negative profit performance is also reflected in the most important key figures for the structure of assets, liabilities and capital, as well as in the yield performance. The return on capital employed (ROCE) during the year under review amounted to - 5.0 % (2015: 2.9 %); return on sales (EBIT margin) amounted to - 7.5 % (2015: 4.1 %).

**Change in EBIT, EBITDA and ROCE**



**Financial and asset situation**

**Positive free cash flow**

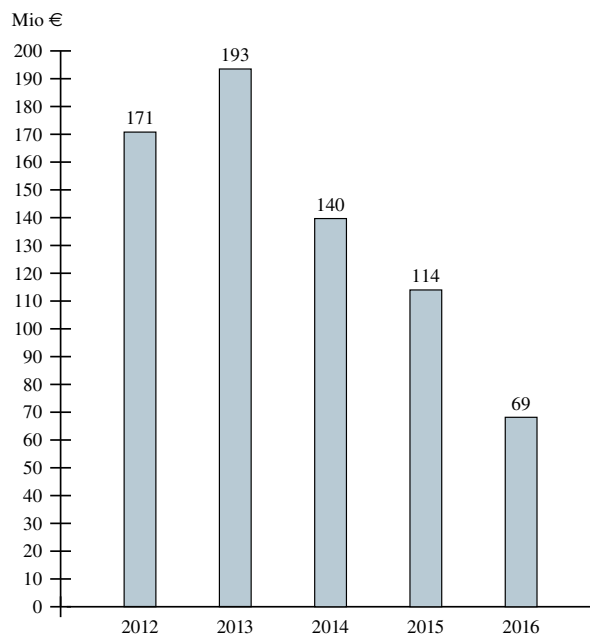
Cash and cash equivalents increased by € 110 million during the financial year from € 67 million to € 177 million (change in the previous year: - € 13 million).

Cash flow from operational activities meanwhile amounted to € 80 million (2015: € 188 million). Key components of cash flow during the year under review were the considerable cash flows from the reduction of working capital in the amount of € 113 million (2015: € 66 million), offset against the negative income for the accounting period – adjusted for the depreciation of fixed assets and for the non-payment-related interest expenses for long-term provisions – in the total amount of - € 44 million (2015: € 110 million).

Cash outflow for investments in 2016 amounted to a total of € 55 million (2015: € 89 million) – with € 69 million going to payments for investments in tangible fixed assets alone (2015: € 114 million).

As a consequence, there was once again a positive free cash flow during the year under review amounting to € 25 million (2015: € 99 million).

**Investments in plant, property and equipment at Dillinger**



As in the previous financial year, the focus of investment was the continuous casting machine CC 6 – a major project with which Dillinger underscores its technological leadership in manufacturing premium, continuously cast slabs for the most demanding heavy plate specifications. The system, which sets another world record with slab thicknesses up to 500 mm, was inspected and approved in 2016. In addition to the CC 6 project, investments primarily involved the rolling mill, but also heavy fabrication and metallurgy, including, among other things, the start of operation of the new, fully automated steel plant laboratory.

Cash flow from long-term borrowing exceeded payments for financing measures including the processing of the profit and loss transfer agreement with the parent company, resulting in surplus cash of € 85 million (2015: - € 112 million).

**Earnings reduce the equity ratio**

The balance sheet total increased from the previous year by € 46 million to € 2 990 million. The net asset position is meanwhile characterized by higher long-term assets and a slight reduction in short-term asset values. Fixed assets increased once again in 2016 – by € 55 million to € 2 074 million. The primary reasons for this – in addition to the

**Key figures**

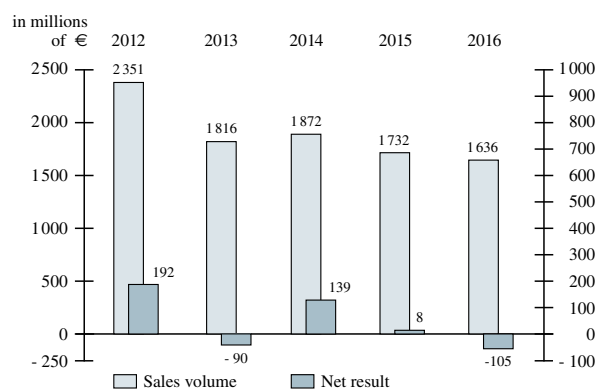
		2012	2013	2014	2015	2016
<b>Capital intensity</b>						
Shareholders' equity	millions of €	1 837	1 747	1 812	1 812	<b>1 707</b>
Total assets	millions of €	2 949	2 872	2 962	2 943	<b>2 990</b>
	in %	62.3	60.8	61.2	61.6	<b>57.1</b>
<b>Liquidation ratio for fixed assets</b>						
Shareholders' equity	millions of €	1 837	1 747	1 812	1 812	<b>1 707</b>
Fixed assets	millions of €	1 734	1 894	1 967	2 019	<b>2 074</b>
	in %	105.9	92.2	92.1	89.7	<b>82.3</b>
<b>Debts</b>						
Long-term bank liabilities	millions of €	231	211	172	143	<b>245</b>
Shareholders' equity	millions of €	1 837	1 747	1 812	1 812	<b>1 707</b>
	in %	12.6	12.1	9.5	7.9	<b>14.4</b>
<b>EBIT margin</b>						
EBIT	millions of €	209	- 53	183	57	<b>- 98</b>
Sales DH-products	millions of €	1 881	1 449	1 505	1 375	<b>1 305</b>
	in %	11.1	- 3.7	12.2	4.1	<b>- 7.5</b>
<b>EBITDA margin</b>						
EBITDA	millions of €	266	3	237	110	<b>- 37</b>
Sales DH-products	millions of €	1 881	1 449	1 505	1 375	<b>1 305</b>
	in %	14.1	0.2	15.7	8.0	<b>- 2.8</b>
<b>Return on capital employed (ROCE)</b>						
EBIT	millions of €	209	- 53	183	57	<b>- 98</b>
Shareholders' equity, tax provisions, liabilities subject to interest (average)	millions of €	1 981	2 013	1 971	1 970	<b>1 954</b>
	in %	10.6	- 2.6	9.3	2.9	<b>- 5.0</b>
<b>Internal financing capability</b>						
Cash flow from operations *	millions of €	363	70	77	188	<b>80</b>
Net investment in tangible assets	millions of €	171	193	140	114	<b>69</b>
	in %	212.3	36.3	55.0	164.9	<b>115.9</b>
<b>Expense structure in % of total operating revenue</b>						
Material intensity	in %	69.4	72.7	66.8	65.9	<b>72.2</b>
Personnel intensity	in %	15.0	20.7	16.5	19.4	<b>22.8</b>

\* Statements as of 2014 through application of the German Accounting Standard (Deutsche Rechnungslegungs Standards, DRS) 21.

investments in tangible fixed assets undertaken in 2016, which exceeded scheduled depreciation – were additions and a write-up in financial assets amounting to € 47 million. Current assets declined overall by € 7 million to € 912 million. Provisions fell, as did other assets, respectively, by € 34 million and € 138 million, while receivables and cash and cash equivalents rose by a total € 165 million.

The € 105 million decrease in shareholders' equity resulted from the withdrawal from revenue reserves. The equity ratio declined accordingly from 61.6 % to 57.1 % in the year under review. Borrowed capital increased in sum by € 151 million. While accruals and provisions decreased overall by € 37 million, liabilities exceeded the previous year's amount by € 188 million. Increased operational activity in comparison with the previous year as well as the increase in raw materials prices in the 4th quarter primarily led to a total € 88 million increase in accounts payable from deliveries and services to third parties, affiliated companies and companies linked by virtue of participating interests.

**Sales and profit performance**



**Changes in important performance factors**

**Sustainability**

The productivity and success of Dillinger are determined by its sustainable and responsible behavior toward employees, the environment, the public and the region. This

is demonstrated not only by the company's 330 years of existence but also by numerous focal issues and areas of activity contained in the following sections of the management report. The sustainable corporate policy of Dillinger is distinguished by:

- responsible human resource efforts that aim for workplace safety and health as well as high social standards,
- internal improvement processes that bring the principles of sustainability and safe conduct to each workplace and each employee,
- consolidation of competence and service in the interest of the long-term success of our customers in efficiently implementing unique and innovative projects,
- safeguarding and enhancing Dillinger's technological leadership through investing in new facilities and modernizing existing ones, as well as through developing innovative products and processes,
- safeguarding know-how through knowledge transfer and strong training and professional development programs,
- continuous investment in research and development to enable efficient and economical manufacture of innovative products,
- procurement that is oriented on secure supply and environmentally beneficial modes of transport,
- efficient and economical activity that employs a multitude of environmental protection measures for efficient use of energy, for the recycling of co-products from steel production and for the reduction of emissions.

Moreover, the very product that Dillinger manufactures – steel – fulfills the principle of sustainability more explicitly than virtually any other. Steel is the most-used industrial base material and it contributes significantly, through a wide range of applications, to protecting the environment and climate. No other material is produced through a process as environmentally compatible as steel. At the end of their useful lifetimes, products made from steel can be completely recycled as often as desired and reintroduced into the economic cycle with virtually no waste or loss of quality.

Sustainable production of renewable energies from wind, water and the sun is inconceivable without steel. Innovative products made from steel, such as wind power plants or modern power stations, save six times as much CO<sub>2</sub> as is produced during their manufacture, according to a study by the Boston Consulting Group. The use of steel

in building construction – likewise an important customer segment for Dillinger – is characterized by especially short installation times, which reduces to a minimum any negative impacts on the environment, such as from noise, dirt or traffic disruptions during bridge construction. In structures subjected to high stresses, it is not uncommon for material usage to be reduced by up to 50 % through the use of high-tensile steels, which helps preserve valuable resources and protect the environment.

## Employees

For Dillinger, as a manufacturer of high-tech and high-quality products, successful operation fundamentally depends on skilled employees and managers as well as on their high level of commitment. The company therefore invests systematically in socially compatible and responsible human resources efforts. Central personnel policy issues in 2016 included improving workplace safety, promoting health, fostering young skilled employees for the company and continued development of the management culture.

### Number of employees nearly unchanged

A total of 5 109 people were employed at the Dillingen site at the end of the financial year (31 Dec. 2015: 5 081). These employees worked at Dillinger itself, at ZKS, and at ROGESA. In 2016, 94 new employees were hired. In addition, 51 trainees and 3 people who were changing careers were hired. The overall number of employees increased by 28 persons (+ 0.55 %) compared to the previous year. A total of 2 409 people were employed at Dillinger subsidiaries (2015: 2 455).

### Safety and health

A safe and healthy work environment is given top priority at Dillinger. Once again in 2016, numerous programs, measures and facilities contributed to promoting and maintaining the safety-consciousness and good health of employees. Dillinger concluded 2016 with 36 accidents requiring at least one day of time off (2015: 46) and a rate of accident frequency (the number of accidents requiring one day of time off per 1 million hours worked) of 4.4 (2015: 5.7). With this, the absolute number of accidents reached in the previous year as well as the accident rate

were again significantly reduced. As part of its “Stahl Vital” initiative, Dillinger again offered special health programs to raise awareness and support employees in leading healthy lives and practicing good work habits.

### Support for young employees

Despite economically difficult conditions, Dillinger continues to invest in training its own young employees to prevent a possible shortage of skilled workers as a consequence of demographic change. During the financial year, 80 young people started their careers with the company. As a result, the company trained a total of 236 young workers, when all training class years are included. The number of trainees thus rose slightly in comparison to the previous years (2013: 204; 2014 and 2015: 206). Added to this were 10 interns from technical secondary schools who completed a one-year school internship in Dillinger plants.

For many years now, the company has also maintained partnerships with universities in order to help support young university graduates. In 2016, 47 university students from a technical course of study and 12 university students from a commercial course of study worked at Dillinger as technical university or university trainees. In addition, eight students began their cooperative degree program with the University of Applied Sciences in Saarbrücken (HTW) as well as the University of Saarland (UdS). A total of 25 students are currently completing this practical course of study in the company.

### Corporate social policy

In addition to good company retirement benefits for employees, the responsible corporate policy at Dillinger Hütte has traditionally included offering its employees a wide range of social services, which were expanded in 2016 with occupational disability provisions. In the Dillinger Group (including SHS), 3 197 individual counseling meetings have been held with employees to date; as of 31 Dec. 2016, 2 248 employees have concluded the corresponding insurance policy. The commitment to helping employees balance work and family includes two child daycare facilities initiated and supported by Dillinger, which celebrated 10 years of operation during the financial year. A total of 70 children can be cared for here – making this one more way the company is working to meet its social responsibility to the region.



## **Improvement processes**

Dillinger employs various improvement programs to enhance productivity and continuously improve the company.

### **GPS program for integrated planning and control**

The GPS program for integrated planning and control (“Ganzheitliche Planung und Steuerung”) includes company-wide focal issues and objectives determined by the Board of Directors, which are defined through measures in the annual development plan (JEP) and are monitored using the relevant key indicators. In 2016, this once again included improvement of workplace safety as well as the issue of optimizing costs.

### **Continuous improvement and development (KVE)**

Dillinger systematically involves its employees in the continuous improvement process in order to further develop the company. The activities are focused on the issues of workplace safety, energy savings and improving workflows. Of the numerous ideas for improvements that have resulted from the continuous improvement process, about 500 ideas have been evaluated. Their net annual benefit amounts to more than € 1 million.

### **Continuation of the programs to cut costs and boost efficiency**

The programs for continuous improvement are supplemented with the continuation of various programs aimed at cutting costs and boosting efficiency. For instance, the subprograms, initiatives and projects derived from the strategy program PRIMUS 16 are consistently aimed at improving the competitiveness of Dillinger.

### **Innovation management**

Dillinger also began introducing an innovation management program in 2016. Aside from the connection to Industry 4.0, which is described in regard to Dillinger in the “Dillinger Industry 4.0 Guide,” the declared goal here is in particular the targeted production of ideas and the introduction of an innovation culture. Following a successful pilot phase, eight innovation tutors have been designated and trained, and will further roll out the innovation process in the plant.

Moreover, in June 2016, the company invited guests to the “Dillinger Day of Innovation.” Numerous internal and external lectures, dialogues, poster sessions and clips offered interesting insights here into the various fields of innovation at Dillinger.

## **Buildings and reference projects**

Customers worldwide rely on heavy plate steel from Dillinger for the cost-effective execution of exceptional and innovative projects in a wide range of industries. In addition to high product quality, the following compendium of reference projects from the past financial year demonstrates the demand for customized solutions, smooth processing of orders, special test methods and generally good service.

### **Dillinger plate for Spoorbrug Muiderberg**

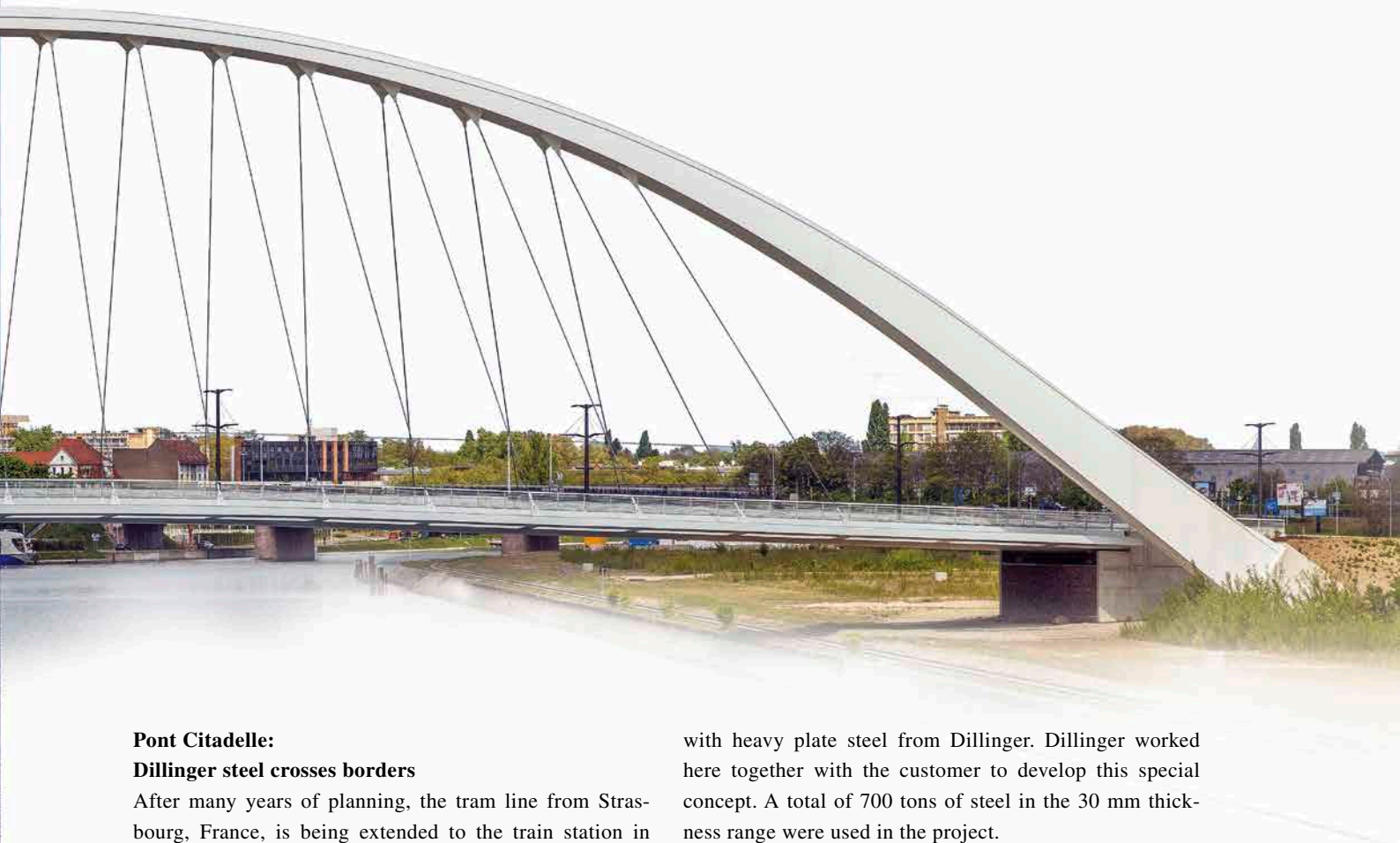
As part of what is currently the biggest infrastructure project in The Netherlands, the new two-track arch railway bridge over the A1 at Muiderberg, east of Amsterdam, officially opened on 26 August 2016. Of the total 8 400 metric tons of steel used for the tied-arch bridge – roughly equal to the steel construction of the Eiffel Tower – Dillinger supplied around 8 200 metric tons with extremely high standards with respect to properties exhibited in cold formed condition and weldability. With a span length of 255 meters, a width of 17 meters and a height of 55 meters, the new railway bridge at Muiderberg is among the largest arch bridges of its type.

### **Heavy plate steel for the Gotthard tunnel boring machine**

After 17 years of construction, Switzerland celebrated the opening of the Gotthard Base Tunnel in June 2016. The first regular passenger train rolled out from Zurich toward Lugano on 11 December 2016. Steel from Dillinger played a decisive role in this complex construction project as well. It is contained inside the four most powerful tunnel boring machines in the world, which were used in the construction of the massive tunnel. Each of these machines weighs 3 050 metric tons, has a maximum drill diameter of 9.58 m, and is powered with 3,500 kW. Dillinger delivered around 2 100 metric tons of heavy plate steel in thicknesses up to 200 mm to build the tunnel boring machines.



*The „Pont Citadelle“, which completes the recently opened tram connection from Strasbourg to Kehl, also contains Dillinger steel*



**Pont Citadelle:  
Dillinger steel crosses borders**

After many years of planning, the tram line from Strasbourg, France, is being extended to the train station in Kehl, Germany. To reach the Rhine border river, the tram must first be conducted over the Vauban Basin. This is accomplished with the newly constructed Pont Citadelle, a 163 m long arch bridge. Upon reaching the Rhine, the new tram crosses it via a double-arch bridge – each arch is 20 m high – to reach the Kehl shoreline. Dillinger delivered a total of around 3 500 metric tons of steel for these two unique bridge structures, with the majority of the steel being high-strength thermomechanically rolled (TM) steel with plate thicknesses up to 115 mm.

**Cylindrical butane storage tanks for Sweden**

To expand the storage capacity for the petrochemical industry in Sweden, two cylindrical, horizontally mounted butane gas storage tanks – known as “cigars” – have been manufactured with a capacity of 2 100 m<sup>3</sup>. The two XXL containers, both 43 m long by 11 m high and with a unit weight of 350 metric tons when delivered, were also built

with heavy plate steel from Dillinger. Dillinger worked here together with the customer to develop this special concept. A total of 700 tons of steel in the 30 mm thickness range were used in the project.

**Dillinger steel for the Gemini offshore wind farm in the Netherlands**

Starting in 2017, the 150 wind turbines in the Gemini offshore wind farm, with their 600 MW total output, will be able to supply more than 400 000 households in the Netherlands with electricity. The turbines rest on monopiles that are up to 73 m long and with diameters of up to 7 m. The name Gemini (twins) represents the two neighboring sea areas in which the offshore wind farm has been constructed in waters up to 36 m deep. Dillinger delivered around 94 500 metric tons of thermomechanically (TM) rolled plate for the steel monopiles in thicknesses of up to 95 mm. With individual plate weights of up to 32 metric tons, the production options for TM plate were pushed to the limits of what was then feasible; today, Dillinger is able to deliver this grade in individual plate weights up to 35 metric tons.

**The Zohr gas field:  
advanced steels and a special test method**

The Zohr gas field lies in the Mediterranean, 190 km off the coast of Egypt. At a depth of 4 km, it has a volume of 850 billion cubic meters. Production is slated to begin during 2017, with the objective of covering Egypt's own gas requirements. The pipes required for the field are subjected to high external pressure due to the water depth of more than 1 500 m. Plate in thicknesses of 35 and 39 mm were used for this. The high wall thicknesses combined with a pipe diameter of only 26 inches (about 660 mm) lead to strong cold forming of the plate during the pipe forming. Due to the specified sour gas resistance of the pipe, this requires plate developed especially for these conditions.

Using an eddy current test, the plate is inspected for local surface hardening that could lead to damage from sour gas corrosion. This test method incorporates the latest large-diameter line pipe specifications and was developed by Dillinger together with an external partner. It also allows testing of large volumes of line pipe. The tight schedule required speed and flexibility on the part of all participants in the project. Dillinger delivered more than 140 000 metric tons of heavy plate steel for the Zohr gas field, on time and meeting the required standards for quality.

**Research and development**

As an important basis for innovation, Dillinger invests continuously in research and development (R&D). R&D activities are concentrated here along the value chain, from hot metal to steel production and to heavy plate production. Tasks include reducing costs, improving processes and products, and expanding the properties profiles of the heavy plate and intermediate products within the value chain. To this end, it is essential to develop and safeguard comprehensive expertise – including through partnerships with external research institutions and universities – which is then applied within the company.

**Hot metal production**

In the focus of hot metal R&D in 2016 were various projects for complying with the EU Industrial Emissions Directive (IED) in the area of coke and sinter production. For example, emissions were systematically tested during

setting of the coal cake, measures were developed e.g. during transporting coke filling gas to reduce emissions, and, in the area of sintering plant 2, the electric filter for the room dedusting system was retrofitted with modern voltage feeding equipment.

As part of the relining of ROGESA's blast furnace 4 after a 13-year furnace cycle, researchers used the opportunity to systematically document the state of wear in the lower furnace. Insights about wear mechanisms gained from this will help make furnace cycles of more than 15 years possible. In addition to a great deal of support work in modernizing various measurement instruments to characterize the blast furnace process, it was important to migrate the self-developed assistance system to optimize operation of the hot blast stove into the new blast furnace process control system.

**Steel production**

With the start of operation of continuous casting machine CC 6, with its larger slab dimensions of a maximum 2 200 x 500 mm, the focus of research activities was on computational fluid dynamics simulations (CFD) in the continuous casting mold, using numerical fluid mechanics. The results obtained help in optimizing the casting powder and submerged nozzle geometries employed, among other things.

Due to the cost pressure, potential for savings was sought in the area of steel plant research as well. An important area of work here was the optimization of slag quantities in the converter process, and the use of innovative slag formers was examined together with suppliers.

**Heavy plate steel production**

In heavy plate research, the expansion of metallographic knowledge about products and processes forms the foundation for fast and efficient development. The goal here is to constantly expand the limits of the properties and dimensions as well as to develop efficient concepts. Foundation-oriented research continued in 2016 to revolve around the systematic expansion of microstructure-based material design and modeling. Networking and research projects with external scientific partners forms an important basis for these activities. As a result, significant advances were achieved during the financial year in modeling of microstructures and properties, and efficient methods for

material characterization were developed that are capable of objectively and quantitatively assessing micrographs.

Important advances were also achieved once again in 2016 in the area of product development. This resulted in a further increase in the range of thicknesses for a wide array of grades – often in combination with extremely demanding specifications.

#### **Procurement and transport of raw materials**

The trend of falling prices in the raw materials markets was interrupted in the second half of 2016. Further growth in demand for raw materials in China, combined with the worldwide closures of ore and coal mines, had an impact.

While a growing number of Europe’s coal power plants are being shut down, economies in Asia continue to rely on energy production from coal at an intensity that has hardly diminished. While the overarching objectives in the “decarbonization” adopted in Elmau 2015 and that of the Paris climate conference are primarily aimed at energy production, they are not without impact on the medium- to long-term availability of coals for steel production, especially in Europe.

#### **Ore prices markedly higher – pellet market strained**

The ore market has been significantly influenced by the development in China: Seagoing ore imports reached a new record level of around 1 billion metric tons. Despite increased worldwide production of iron ore, prices increased again as a result. In addition, there were special effects such as a roughly 25 % loss of production for the seagoing pellet trade caused by a dam break at Brazil’s pellet producer Samarco in late 2015, which became increasingly noticeable starting in the middle of the year. The supply situation for iron ore pellets therefore remains quite strained.

The strategy pursued by ROGESA and ZKS of diversification and continuous optimization of the blast furnace charge and coking coal mixture allowed for optimal supply of the blast furnaces at all times in terms of quality and costs, even under the highly volatile conditions in 2016.

#### **Fuels: explosion in demand and prices in 2nd half of year**

Due to mine closures and reduction of the work days in Chinese coal mines, demand from China rose on the world market by about 50 million metric tons. In addition, the production capacity on the world market after various mine closures fell by about 40 million metric tons. In a market environment characterized by several years of consolidation, mine closures and producer bankruptcies, the decision by the Chinese government at mid-year to drastically limit domestic extraction led to an absolute explosion in demand and prices in the 2nd half of 2016.

#### **Shipping: rising cargo rates starting in the 2nd quarter**

The cargo rate market reached a historic low in the 1st quarter of 2016. The volatility of the cargo market increased sharply at the start of the 2nd quarter and especially in the 2nd half of the year. The combination of favorably priced cargo rates that are secured long-term and the simultaneous use of opportunities on the spot market continued to prove fruitful for ROGESA and ZKS. New opportunities and ways were also generated and conditions improved in the area of bulk material-handling companies.

#### **Successful supply strategy**

The basic coal types no longer available due to mine closures were replaced with suitable alternatives, or compensated for through changes in operation, without negative impacts on processes or costs. The significantly higher volatility in availability and price in the coal market was accounted for through a further intensification of market research and diversification activities. By concluding contracts with varying durations and conditions while at the same time diversifying and developing new sources of supply, supply bottlenecks and negative effects with respect to quality and production costs were avoided for ores and fuels as well.

The supply of ROGESA and ZKS with ore, fuels and aggregate materials was ensured at all times and at good conditions despite the volatile fluctuations in price as well as the relining of blast furnace 4 of ROGESA and the associated reduction in production.

#### **Consistent transport volumes at the Dillingen plant**

In 2016, the transport volumes at the Dillingen plant in the transit of raw materials for Dillinger, ROGESA and ZKS



*Investment into the future:  
A glimpse into the new, fully automated  
Dillinger steel plant lab*

was 9.8 million metric tons, and in the shipping of finished and co-products, was around 5 million metric tons. Environmentally sound railway and inland vessels were again used to transport a high 87 % of this volume.

The year proceeded without major interruptions in railway and truck transport. In contrast, there were considerable disruptions – as during the previous year – to inland waterway transport due to low water combined with higher cargo surcharges. This was especially the case during the second half of the year. The supply of raw materials to Saarland's steel industry was nonetheless safeguarded at all times. Suitable shipping space could likewise be provided at all times for shipping transit.

### **Environmental protection and energy efficiency**

Dillinger consistently strives throughout the company for sustainable and ecologically sound management and production. Extensive investment in state-of-the-art technologies helps reduce environmental impacts and continuously improves energy efficiency. The focus of activities in 2016 was on emission control, conserving valuable resources and increasing energy efficiency at the Dillinger steel plant.

### **Improving air quality**

Also in 2016, significant technical modernizations to dust collection systems contributed to improvements in air quality at the Dillinger site. One important measure was the retrofitting of the electric filter for the room dedusting system in the ROGESA sintering plant 2 with voltage commutators. This makes more efficient dust removal possible, which will also enable compliance with future, lower dust limits. In the relining of the ROGESA blast furnace 4, the existing dust bag was replaced with a modern axial cyclone for improved cleaning of the blast furnace gas. This also contributes to a significant reduction in the volume of washing tower sludge that requires disposal.

**Noise control efforts continued**

In the interest of continuous improvement of the noise situation at the site of the plant, the ZKS noise inventory was updated in specific areas in 2016 and the acoustic concept was implemented for the new construction activities related to the relining of blast furnace 4, so that the technical innovations to blast furnace 4 were integrated into the overall acoustic concept at the site.

**Blast furnace gas power plant: optimal utilization of capacity**

The blast furnace gas power plant of Gichtgaskraftwerk Dillingen GmbH & Co. KG combines optimum protection of the environment with maximum energy utilization at the Dillingen plant (see also the “Shareholdings – ROGESA” section). The blast furnace gas power plant has an electric output of around 90 MW and a thermal output of 230 MW. By employing the best systems technology currently available, up to 2 billion cubic meters of blast furnace gas can be used annually to produce 570 million kWh of electricity and 400 000 tons of steam or usable heat for consumers at the steel mill site. In 2016, the electricity self-produced by Dillinger, ZKS and ROGESA in the blast furnace gas power plant amounted to 491 GWh (2015: 495 GWh). To cover the thermal and heating requirements at the site, around 160 GWh of heat (in the form of steam and feed water) were taken from the high-efficiency combined heat and power plant.

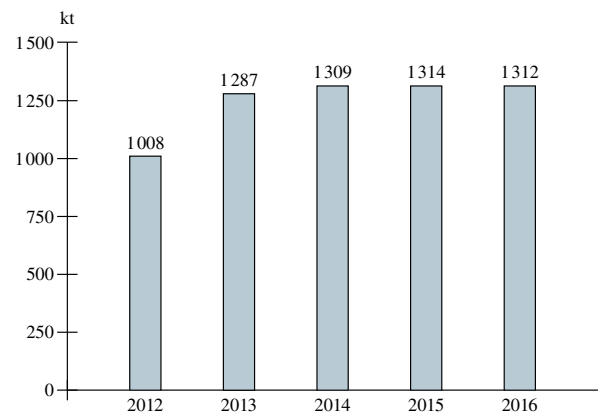
**Most significant shareholdings**

**Zentralkokerei Saar GmbH, Dillingen**

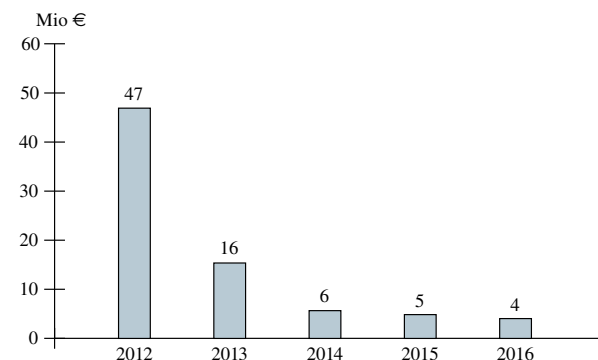
Aktien-Gesellschaft der Dillinger Hüttenwerke and Saarstahl AG each hold an indirect 50 % interest in Zentralkokerei Saar GmbH. ZKS produces coke intended exclusively for use in ROGESA’s blast furnaces. Total coke production in 2016, at 1 312 kt, was slightly below the previous year’s production (1 314 kt). ZKS is a company without employees. Operational management is handled by Dillinger.

Investments at ZKS in 2016 amounted to € 4 million (2015: € 5 million). Key investments during the year under review included, on the gas treatment plant, new filling stations with liquid-tight areas for additives as well as a

**ZKS coke production**



**Investments in plant, property and equipment at ZKS**



new gas extraction system for the coke oven battery roof. These investments contribute significantly to improving environmental protection at the site.

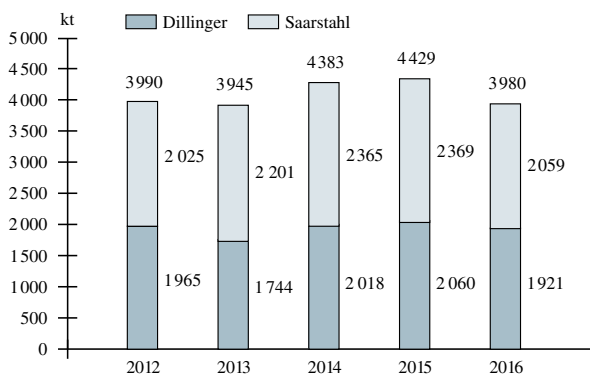
**ROGESA Roheisengesellschaft Saar mbH, Dillingen**

ROGESA Roheisengesellschaft Saar mbH, in which Dillinger holds a 50 % interest (indirect and direct), produces hot metal exclusively for its shareholders, Aktien-Gesellschaft der Dillinger Hüttenwerke and Saarstahl AG. Operational management of ROGESA, as a company without employees, lies in the hands of Dillinger.

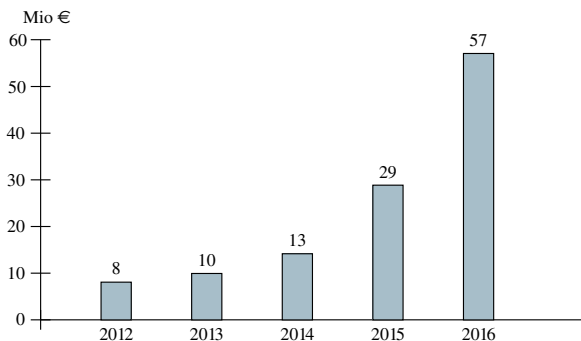
Hot metal production in 2016 was carried out according to plan with blast furnaces 4 and 5, and – due to the relining of blast furnace 4 in the third quarter – annual production, at 3 980 kt, was 10.1% lower than the previous year (4 429 kt).



## Hot metal production by ROGESA for Dillinger and Saarstahl



## Investments in plant, property and equipment at ROGESA



During the year under review, 1 921 kt (previous year: 2 060 kt) was supplied to Dillinger and 2 059 kt (previous year: 2 369 kt) went to Saarstahl.

Investments at ZKS in 2016 amounted to € 57 million (2015: € 29 million). The focus of the investments was on the relining of blast furnace 4. The planned 90-day schedule was adhered to precisely. The primary work performed on blast furnace 4 in the course of the relining during the year under review included replacement of the dust bag with an axial cyclone, refurbishing of the gas wash water cycle and the open cooling water cycle, renovation of the complete electrical system and automation, and modernization of the control system and blast furnace blowers D1. In addition, the railway tracks in the area of ROGESA were comprehensively refurbished: In all,

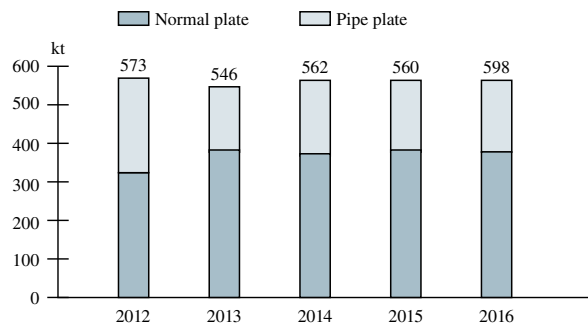
around 2 650 m of tracks and 5,000 railroad ties as well as 6 500 tons of gravel and soil were moved by year's end.

Along with STEAG New Energies GmbH (49.9 %) and VSE AG (25.2 %), ROGESA holds a 24.9 % stake in Gichtgaskraftwerk Dillinger GmbH & Co. KG, which leases a 90 MW power plant at the Dillinger plant to the operators of the blast furnace gas power plant, Dillinger, ROGESA and ZKS, for the production of electricity.

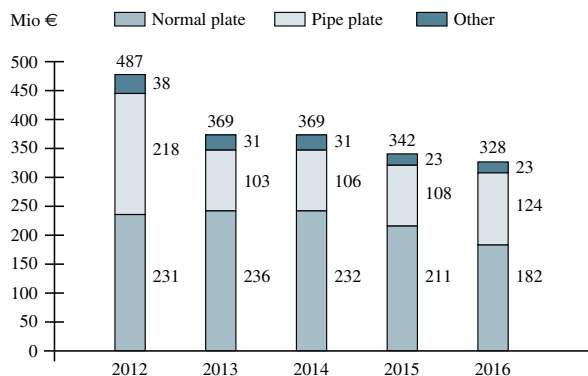
## Dillinger France S.A., Dunkerque

Dillinger France S.A. is a wholly owned subsidiary of Dillinger that operates a heavy plate rolling mill in Dunkerque. The products are marketed almost exclusively through Dillinger. Dillinger France also procures the majority of its input material from Dillinger.

## Change in heavy plate production at Dillinger France



## Change in sales performance of Dillinger France





*Unusual perspective:  
Refractory lining of the hot-blast stove  
during the furnace revamping*

## 2016: production increased

Despite difficult underlying economic conditions, Dillinger France was able to increase production in 2016. As a result, total production during the year under review increased by 6.8 % to 598 kt (2015: 560 kt).

Dillinger France was primarily able to show growth in the pipe plate segment (+ 26 %). These orders for the construction of gas pipelines outside the EU involved high technical requirements; some projects in the sour gas transport segment time required an especially high resistance to hydrogen-induced cracking (HIC steel) while at the same time requiring additional, exacting mechanical and thermal properties. In the normal plate segment, the offshore wind power market showed positive growth in the second half of the year, which is expected to continue in 2017 as well.

In the American market in particular, deliveries to the American EURO-PIPE subsidiary Berg Steel Pipe Corporation were suspended during the course of 2016 due to the anti-dumping trade case initiated in the United States in early April.

## Earnings still depressed

The year 2016 began with a very sharp collapse of selling prices, which continued throughout the entire first half of the year. Sales achieved in the 2016 financial year, at € 328 million, were 4 % lower than in the previous year (€ 342 million) due to the worsened revenue levels.

Production costs improved, thanks in particular to the higher production level. The 2016 financial year concluded with a loss amounting to € 19.2 million, after a deficit in 2015 of € 11.8 million. Shareholders' equity amounted to € 118 million.

## Number of employees remains constant – workplace safety at a high level

The number of employees at Dillinger France, with 541 at the end of 2016, remained nearly constant in comparison, with 557 employees at the end of 2015.

The workplace safety performance at Dillinger France continues to be exceptionally positive: In 2016 there were no lost-time incidents (LTI). As a result, the company had posted 572 days without an accident with a lost-time injury (LTI) as of 31 December 2016. The number of workplace accidents subject to reporting requirements, at a total of 14, improved once again over the previous year (17), but still exceeded the company's self-imposed goal of no more than 12 accidents subject to reporting requirements.

## Integrated management system and investments continued

As part of its integrated management system, Dillinger France is certified in accordance with the standards ISO 9001 for its quality management, ISO 14001 for its environmental management, OHSAS 18001 for its occupational health and safety management and ISO 5001 for its energy management. In 2016 the company took another step in its development and is now certified in accordance with the latest quality and environmental management standards from 2015. Efforts are currently underway to obtain approval according to ISO/TS 17025 for test laboratories.

Dillinger France is following the strategy of the Dillinger Group in developing new thick plate products: A new slab

flame-cutting system was installed in 2016 and will begin operating in 2017. The plate router data processing project continued, and phase 2 has already been approved. In addition, investments in further improvements to quality control were implemented during the year under review.

**Steelwind Nordenham GmbH, Nordenham**

Steelwind Nordenham GmbH is a wholly owned subsidiary of Aktien-Gesellschaft der Dillinger Hüttenwerke that operates a plant in Nordenham for the production of foundations for offshore wind turbines (monopiles, mega monopiles and transition pieces). Heavy plate steel in the required grades and dimensions is delivered by Dillinger and its subsidiary Dillinger France in Dunkerque.

Monopile foundation systems (monopiles or mega monopiles and transition pieces) are cost-effective foundation systems whose support structure is constructed from heavy plate in thicknesses up to 150 mm. The structural elements have diameters of up to 10 m, unit weights of up to 1 500 tons and lengths of up to 120 m.

For Steelwind, the 2016 financial year was defined until October by the production of the first large order. For the Race Bank offshore wind farm, 91 monopiles were produced with diameters up to 7 m and weights of more than 700 metric tons. The first monopiles began to be driven into the North Sea off Eastern England in late June 2016. The last 4 monopiles left the plant for England in early November – and thus 5 weeks before the planned final loadout date.

In July, two additional large orders were booked, for which Steelwind Nordenham will for the first time be delivering the entire foundation system (monopiles and transition pieces) under its own umbrella. These orders will utilize the capacity of Steelwind Nordenham into the first quarter of 2018.

**EUROPIPE GmbH, Mülheim**

The EUROPIPE Group manufactures and sells welded large-diameter line pipe made of steel. The diameters of the line pipe range from 24 inches (610 mm) to 60 inches (1 524 mm). As a corporate group, EUROPIPE GmbH and its affiliated companies are among the world’s leading corporations in this market segment. Dillinger holds a 50 % share of EUROPIPE GmbH.

In Europe, the large-diameter line pipe is produced in Mülheim an der Ruhr on two production lines (18 m and 12 m lines). The pipe is coated by EUROPIPE subsidiary MÜLHEIM PIPECOATINGS GmbH (MPC), Mülheim an der Ruhr. Closure of the former second European production site in Dunkerque is continuing according to plan and will be completed in late 2017.

In the United States, the operating companies of the EUROPIPE Group are consolidated under the holding company, BERG EUROPIPE Holding Corp. (BEHC). Berg Steel Pipe Corp. (BSPC) in Panama City, Florida, primarily supplies the North American market with longitudinally welded pipe; Berg Spiral Pipe Corp. (BSPM) in Mobile, Alabama, supplies spiral pipe. Both plants have facilities to coat the pipe. Marketing activities for the North American companies are combined in the BERG EUROPIPE Corp. (BEC) marketing company of Houston, Texas (USA).

*Activity, shipping and sales volume improved significantly*

Booking of plant capacities in 2016 can be described as noticeably improved from that of the previous year. At the end of 2016, production of the Nord Stream 2 pipeline was launched.

As a consequence, apart from one week of reduced working hours in February, production in Mülheim ran nonstop in at least two shifts. Since almost all larger orders were booked with coating, the activity situation at MPC was also considerably improved.

The plants in the United States also produced in two shifts for a very good order situation until November, with the shifts lengthened to 10 hours due to the high production volumes. After this, however – due to the slump in the price for natural gas as well as a significantly worsened project situation and competitive displacement as a result of the ongoing anti-dumping trade case for the important input material heavy plate steel, significant gaps in activity are noticeable. A decrease to single-shift production was therefore unavoidable.

A particularly positive sign was the increase in the order backlog of EUROPIPE GmbH as of 31 December 2016, which had increased compared to the previous year to 1 097 kt (2015: 418 kt). Worthy of note here as a large

order is the booking of the Nord Stream 2 project with a volume of 890 kt. The backlog of orders at the EUROPIPE Group increased as of 31 December 2016 to 1 304 kt (previous year: 927 kt).

Sales posted by the EUROPIPE Group in 2016, at € 1 148 million, were considerably higher than the previous year's sales (€ 888 million). The slight decline in sales of the US Group was more than compensated for by EUROPIPE GmbH on the basis of the improved market situation in Europe. The volumes already produced for the South Stream project but not yet delivered in the previous period ensured, among other things, the significant jump in the quantities shipped (502 kt, previous year: 253 kt) by EUROPIPE GmbH.

The shipped tonnage achieved in 2016 by the US group, at 509 kt, driven by the large Sabal Trail and Fluor Nexus projects, was once again at a high level, but was slightly lower when compared to the previous year (550 kt). One reason for this is the postponement of deliveries until the following year 2017.

With net income for the year of € 10.1 million, the EUROPIPE Group improved earnings compared to the previous year (net loss for the year of € 6.9 million), significantly influenced by the once again strong earnings of the US companies, although these were slightly lower than the previous year. Moreover, the considerably higher shipped tonnage in Europe also had a positive effect on earnings. There was also a dividend payout of the BERG EUROPIPE Holding Corp. (BEHC) to EUROPIPE during the financial year in the amount of € 22.8 million. Since shipping and production volumes in Mülheim were lower than expected in 2016 due to demanding technical requirements that negatively influenced production throughput times, higher positive earnings were missed out on, so that net income for the year at EUROPIPE GmbH was posted at € 8.6 million (2015: net loss for the year of € 46.8 million).

At the end of 2016, the EUROPIPE Group employed a total workforce of 1 123 people. Of these, 580 employees worked for EUROPIPE GmbH.

## Research and investment in quality and process optimization

During the financial year, the EUROPIPE Group invested € 11.9 million (2015: € 11.3 million) for plant, property and equipment and for intangible assets. The investments were primarily aimed at the modernization of the existing machinery as well as at enhancing existing facilities for specific orders, with the goal of asserting and expanding market leadership in the large-diameter line pipe segment.

Particularly worth noting is the investment for the Mülheim site in new control electronics for the important O press unit. In addition, the capacities of pipe end testing were specifically enhanced in order to fulfill requirements placed on EUROPIPE GmbH as part of the Nord Stream 2 order. EUROPIPE GmbH invested € 1.9 million during 2016 (2015: € 1.7 million) in the enhancement of its products and the continuous improvement of production and quality assurance methods. The ultimate goal of the development efforts is to expand the range of application of the large-diameter line pipe and to improve quality parameters.

## Prospects for the large-diameter line pipe market: Europe considerably more positive than USA

Despite relatively low oil and gas prices, development of the market for pipeline pipe in Europe was highly positive. This is exclusively due to the large project Nord Stream 2, which brings gas from Russia to Germany through the Baltic Sea and has led to realization of the follow-up project EUGAL, a connecting pipeline in Germany from the Baltic Sea coast to the Czech border. The eastern Mediterranean, with its many complex offshore projects, can be viewed as a hot spot of future development in Europe.

The market in the Middle East remains the most highly competitive. Because of the aggressive price competition, it is increasingly difficult to obtain orders in this region.

With the Nord Stream 2 order and the remaining backlog of orders, EUROPIPE GmbH has a very good basic utilization of capacities stretching into 2018. Since there is also the promise of excellent booking opportunities for the EUGAL connecting pipeline, and the Monaco project (58 kt, deliveries starting March 2017) was also successfully acquired prior to the end of the year, employment

prospects for the next two years are positive. Based on these high shipments as well as ongoing cost-savings, distinctly positive earnings before taxes are expected for EU-ROPIPE GmbH. Nevertheless, continuation of the measures that have been introduced to increase flexibility and reduce costs have top priority due to the high volatility to be expected in project business over the medium term.

The situation looks different for the US companies in 2017: New orders were low on the reporting date of 31 December 2016. In addition, booking opportunities in the USA were considerably burdened by the anti-dumping cases initiated against imported heavy plate steel. The effects on business from the results of the US elections are currently still difficult to assess. Prospects after 2017 are anticipated to improve again due to an expected increase in projects that are ready for awarding.

**Saarstahl AG, Völklingen**

Specialties of Saarstahl AG, in which Dillinger holds 25.1% of shares, include the production of wire rod, bar steel and semifinished products in various qualities. Customers include automotive companies and their suppliers, companies that build machinery for power generation, the general machine manufacturing sector, the aerospace industry, the construction industry and other sectors that process steel.

The long products market in 2016 was again characterized by overcapacities and unchanged, continuing imports on the EU market, especially from China. The continuing structural crisis intensified the existing pressure on volumes and prices. Through its positioning in the higher quality segment, Saarstahl AG benefited in 2016 from the robust growth of strongly export-oriented German premium manufacturers in the automotive industry.

Utilization of capacities was therefore at a consistently high level despite the relining of ROGESA blast furnace 4. Nevertheless, despite nearly constant shipments, the company concluded the financial year with significant declines in sales and markedly negative results. This is attributable primarily to the declining sales revenue and the increased raw materials prices at the end of the year.

The crude steel production of Saarstahl fell in 2016 compared to the previous year by 11.6 % to 2.39 million tons.

Shipping of steel products fell by 1 % to about 2.31 million tons. Nevertheless, the company concluded the financial year with significant declines in sales and markedly negative results. Thus, sales revenues fell from € 1 635 million in the previous year to € 1 499 million (- 8.3 %). This is attributable primarily to the declining sales revenue and the increased raw materials prices at the end of the year. Earnings before interest and taxes (EBIT) for Saarstahl amounted to - € 142 million (2015: € 89 million) and earnings before interest, taxes, depreciation and amortization (EBITDA) was - € 101 million (2015: € 132 million). Additions to property, plant and equipment for Saarstahl AG in 2016 amounted to € 58 million (previous year: € 63 million). In 2016, Saarstahl AG primarily implemented the investments approved in 2014 and 2015. The focal areas, meanwhile, were the rolling mills and the LD steel plant.

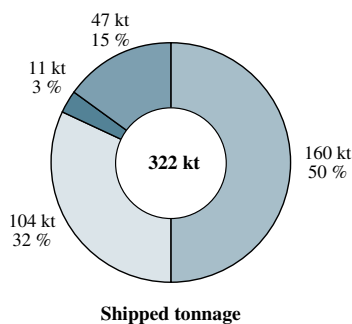
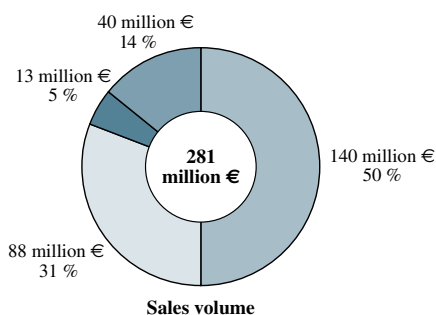
As of 31 Dec. 2016, 4 009 people were employed by Saarstahl AG (previous year: 4 031). A total of 83 (previous year: 75) young people were able to begin their vocational training during the year under review.

Saarstahl began 2017 with good utilization of plant capacities thanks to strong demand. In the important customer segments for the company, an overall positive picture is emerging for 2017: The automotive industry, above all in western Europe, experienced a good start for the year, machine manufacturing anticipates at least robust development, and the construction industry expects significant growth in sales and employment. In view of this, a slight upward direction in steel demand can be expected in the wire rod and bar steel product segments relevant for Saarstahl. The company therefore expects solid growth in volumes, good utilization of plant capacities and, thanks to further stabilization of the price, an increase in net sales as well. An overall positive operating result is expected. The key figures – earnings before interest, taxes, depreciation and amortization (EBITDA), return on sales (ROI), and return on capital employed (ROCE) – will improve considerably from the previous year.

**Trading and flame-cutting operations in the Dillinger Group**

To supplement the range of products and lengthen the value chain, Dillinger holds several indirect and direct shareholdings in trading and flame-cutting companies in

**Sales volume and shipped tonnage in 2016 for the trading and flame-cutting companies in the DH Group**



- Germany:  
Ancofer Stahlhandel GmbH, Mülheim  
Jebens GmbH, Korntal-Münchingen
- Netherlands:  
Ancofer Waldram Steelplates B. V.,  
Oosterhout
- France:  
Eurodécoupe S. A. S., Lyon-Chaponnay  
Ancofed S. A. R. L., Lyon-Chaponnay
- Dubai:  
Dillinger Middle East FZE, Dubai

Germany, the Netherlands, France, Dubai and India. These companies are specialized both with regard to their regional focus and their product ranges and processing depth; however, products from other steel producers are also marketed and processed.

Customer demand for the products of the trading and flame-cutting companies developed unevenly in 2016 depending on region. Sales in Germany and the other EU countries increased, for example, while it fell in third countries, after it had increased in the previous year, especially in third countries. For the trading, flame-cutting and treatment activities, business performance was marked by a consistent drop in revenue levels with overall sales volumes exceeding those of the previous year. With

continued declines in procurement prices, higher gross margins were achieved at the most important companies – depending on the competitive environment and the product portfolio. Operating results at the most important companies were consistently more positive than in the previous year – also due to restrictive cost management. Cumulative sales for 2016, at € 280.6 million, were 0.8 % above those of the previous year (€ 278.3 million). Net shipped tonnage even rose by 6.6 % to 322 kt (2015: 302 kt), whereas sales in the flame-cutting activities was nearly unchanged, and trading activities increased from the previous year. Earnings from operations amounted to € 9.2 million (2015: -€ 4.0 million).

## Risk and opportunity report

### Risk report

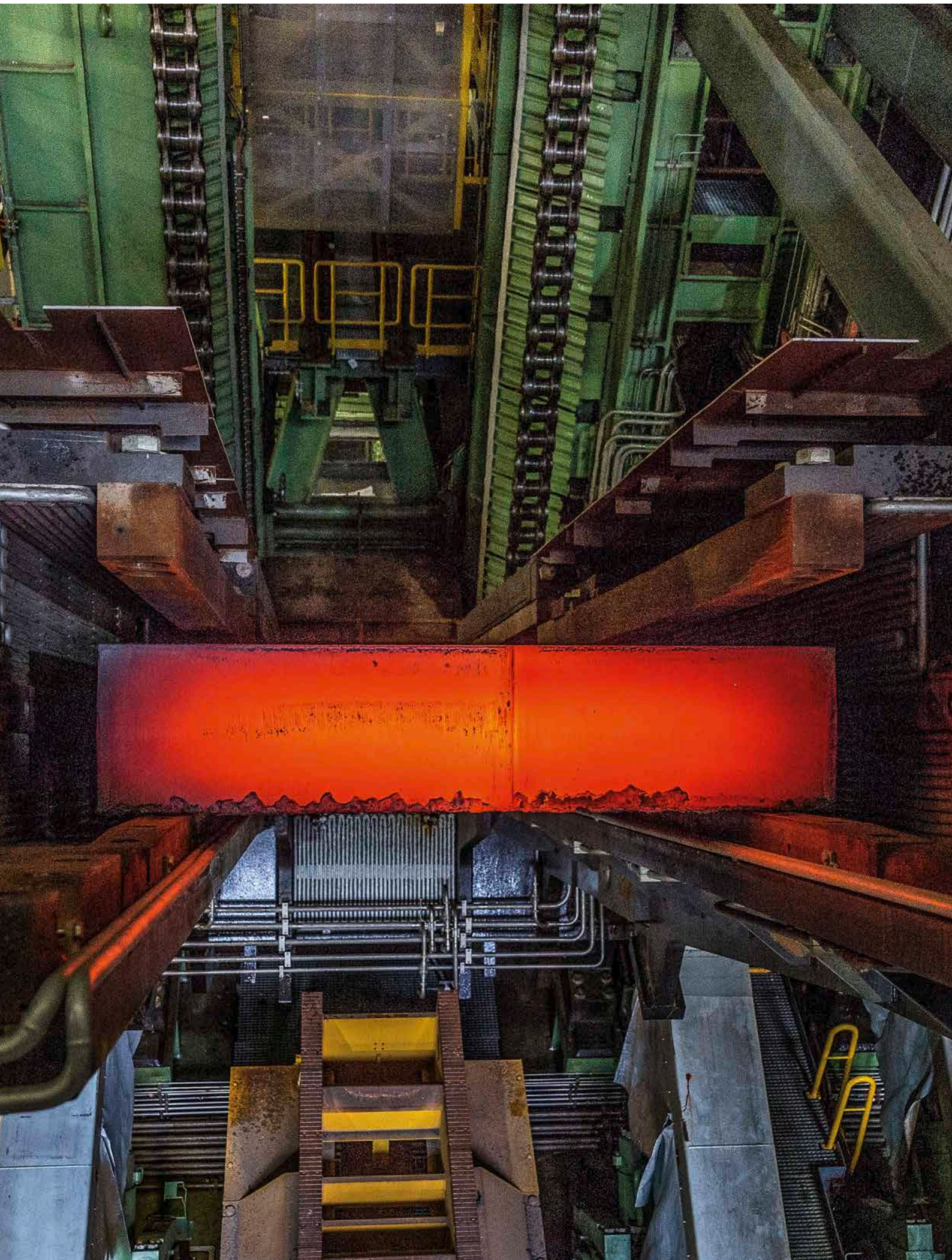
For Aktien-Gesellschaft der Dillinger Hüttenwerke, as a global producer of heavy plate in various grades, taking a structured and constructive approach to business risks and opportunities is of central importance. This is particularly the case in light of the anticipated challenging underlying economic conditions indicated in the forecast report. Dillinger introduced a company-wide risk management system several years ago for this reason. The methods and tools of risk management are continuously developed further.

### Organization of risk management

Risk management at Dillinger consists in part of the risk coordinators and officers in the departments and subsidiaries. These people are responsible for the operational risk management tasks that are integrated into the processes of the individual divisions and subsidiaries as well as for providing regular and ad hoc risk reports to the corporate Risk Management of SHS. In addition, corporate Risk Management handles coordination, support and consolidation duties for the DHS Group. Risk coordinators and SHS Risk Management collaborate as partners in the process.

### Methods and structure of risk management

The risk management system of Dillinger includes all measures aimed at ensuring a systematic approach to risk, and focuses on risk transparency, risk controllability and risk communication.





*World record: With a format of 500 mm thickness, Dillinger, in 2016, again succeeded in producing the thickest slab in the continuous casting facility CC 6*



- **Risk transparency:** Risk management aims to identify and disclose significant risks connected to business activities as early as possible. A systematic and consistent method of analysis and evaluation is used for this.
- **Risk controllability:** Another objective of risk management is to avoid, minimize or transfer the identified risks through new or existing risk control instruments. Transfer of risk takes place through the corporate service provider SHS Versicherungskontor GmbH, which is responsible for arranging an appropriate level of insurance coverage.
- **Risk communication:** The Board of Directors receives regular and event-related information regarding the current risk situation. Moreover, key risk management issues are discussed with the Supervisory Board.

A regular risk management process is the basis of the risk management system of Dillinger. In addition to risk identification and risk assessment, this includes risk control.

In addition, ad hoc risk reporting was introduced in 2016. It is a component of the risk management system and makes it possible to generate a current overview of the risk situation at all times. In addition to the risk management process, risk analysis is an important component of the risk management system of Dillinger. SHS Risk Management conducts risk analyses for Dillinger for specific orders and issues. The content, structure and results of the risk management system are documented in auditable form as per the German Corporate Sector Supervision and Transparency Act (KonTraG).

Corporate Auditing, as part of the comprehensive approach of corporate management to establish an internal management and monitoring system, is a component of risk management in accordance with the German Corporate Sector Supervision and Transparency Act (KonTraG). In this capacity, it is also responsible for the systematic and effective internal auditing of the risk management system.

**Sector, external and market risks**

Dillinger is a company with worldwide operations. Moreover, the customer base of Dillinger is also characterized by companies with global activities, particularly by businesses in the capital goods sector. This implies a dependency on both overall future development of the world economy as well as the development of individual customer segments. Added to this are complex underlying conditions and an extremely competitive situation. Due to worldwide steel overcapacities, increased import pressure, lower growth rates in emerging markets and the unresolved debt crisis in the euro area, there are economic risks, accompanied by intensified competition, that Dillinger cannot entirely avoid. In all of these cases, geopolitical considerations can be seen to increase overall for major economic nations as well. This results in conflicts, and individual interests of the nations are increasingly to be achieved through protectionist measures. Added to this is the uncertainty over how the presidential election in the USA will effect the economy of the country as well as worldwide trade. The aforementioned externally driven risks ultimately result in restriction of market prospects and thus in sales risks for the company. To counter these risks, the company continuously monitors both the overall economic situation and the sales markets in the specific countries. As a further measure, market-oriented adjustments are made to the product mix. Moreover, the subprograms, initiatives and projects derived from the strategy program PRIMUS 16 are aimed at effectively guaranteeing the long-term competitiveness of AG der Dillinger Hüttenwerke and its subsidiaries under these problematic underlying conditions. Overall, the impacts of these externally driven risks must be considered significant.

**Procurement risks**

To produce high-quality products, the company requires raw materials, energy and logistical capacities in a sufficient quality and quantity. For this reason, in addition to the procurement divisions of ROGESA and ZKS estab-

lished for the procurement of raw materials, ore, coal and coke, specific procurement and logistics divisions are consolidated under the umbrella of SHS Services GmbH and SHS Logistics GmbH. Nonetheless, the current geopolitical crises could have a negative impact on the procurement situation as individual raw materials are procured from the corresponding regions. Ongoing developments in the crisis regions are therefore being followed closely and actively supervised through work in associations and the appropriate political forums. Risks are discussed with suppliers and minimized through consultation and cooperation with suppliers. Moreover, a continuous diversification process has been implemented in raw materials procurement, which ensures that an appropriate, technically suitable replacement can be provided in the case of missed deliveries. Procurement of bulk goods required to produce hot metal is based primarily on long-term framework agreements. Purchase prices may nevertheless fluctuate considerably and burden the cost structures of the company. As a result, the trend in raw materials is currently marked by sharp price increases. The cost pressure thus created is further exacerbated by the recent increase in the value of the US dollar for all raw materials listed in USD. But options are also employed to ensure a basic flexibility in raw material supply, especially by the affiliated companies ROGESA and ZKS. For example, an adequate stock policy ensures that a supply buffer is consistently maintained (in the transshipment ports and at the Dillingen plant). In addition, new sources of supply are systematically and continuously sought. This also includes the expansion of logistical connections. Alternative possibilities for employing raw materials are also tested and analyzed. In addition to safeguarding the supply, the implemented measures also help reduce price risks. With regard to energy supply and cost certainty, the 90 MW blast furnace gas power plant in Dillingen helps significantly minimize risk. Overall, the medium-term security of the supply of raw materials, energy and logistical capacities in the required quantities and quality can be considered ensured.

**Risks from operating activities**

Stoppages, property damage and/or quality risks may occur in the production facilities of Dillinger. This could be due to the complexity of the manufactured products, to the complexity of the manufacturing processes and technical operating facilities, or to force majeure. Dillinger counters causes relating to complexity by continuously

investing in the most advanced equipment. In addition, innovative diagnostics systems are used for preventative and status-based maintenance, and the quality assurance system, which has been certified in accordance with international standards, is continuously developed further.

The company counters risks associated with force majeure, such as explosions or major fires that have high potential to cause damage but can be considered unlikely to occur, with fire-protection systems, emergency plans, and its own fire department. In addition, Dillinger has procured an adequate amount of insurance coverage.

Despite these extensive preventative measures, discrepancies from customer requirements occurred in pipe plate manufactured by Dillinger during the 2014 financial year. A judgment in this regard was issued during the 2016 financial year. Dillinger had sufficient coverage for the associated financial risks.

**Financial risks**

Safeguarding the financial independence of the company by coordinating financial requirements is of central importance for Dillinger. Financial risk is actively managed and limited for this reason. This is supported by the integration of the financial departments under the umbrella of SHS. Dillinger concludes financial instruments only with counterparts that have an excellent credit rating. Receivables in the area of deliveries and services are continuously monitored. Transactions are secured by means of credit insurance. The resulting risk of default can therefore be considered low. The current investment activity and the current market situation have a noticeable influence on the liquidity situation of Dillinger. The company counters this with an ongoing financing and liquidity plan as well as with a far-reaching cash management approach that secures liquidity at all times. From a long-term perspective, the company has used the liquidity situation of the market to finance planned investments. In addition, all major subsidiaries are incorporated in the short- and medium-term financial plan according to consistent standards. As part of regular analyses, both the current status and plans are incorporated into the risk management system. This ensures the necessary financial flexibility of Dillinger. Independent of this, market risks can influence fluctuations of current market values or future cash flows from financial instruments. Dillinger actively counters these

risks through the use of currency and interest rate hedging transactions. These instruments considerably limit or completely eliminate market price risks. In general, hedging instruments are not employed separately from the underlying performance-related hedged item. They are regularly monitored, and analysis is generated for controlling purposes. The results are incorporated into the risk management system. Any residual risk is considered low. The financial reporting of the hedging instruments mentioned is presented in detail in the notes to the balance sheet.

**Legal risks and compliance risks**

On the whole, legal risks can be considered to be minimal. A general risk exists, however, that due to the increasing internationalization and expansion of business activities Dillinger could face legal uncertainties as a consequence of contact with numerous fields of law and legal systems. For very specific issues that reach beyond German jurisdictions, Dillinger also procures the expertise of prominent external legal practitioners. Independent of this, misconduct on the part of individuals – whether intentional or unintentional – cannot be completely excluded. However, potential misconduct is counteracted with preventative compliance efforts. Dillinger is committed to the code of ethics of the SHS Group. This code of ethics demonstrates both the values and conduct in our relationships with each other as well as with customers and third parties outside the company. Compliance efforts by the SHS Group and thus by Dillinger were further expanded during the past financial year by the Compliance Committee. Information events and publications on specific compliance issues are also used preventively to encourage conduct that is compliant and that exhibits integrity. Additional measures that go beyond this, such as audits and individual training, are carried out as needed.

**Regulatory risks**


New laws and changes to legal framework conditions at the national and international level may carry implicit risks for Dillinger. This is particularly true when new or amended laws are associated with higher costs for Dillinger in comparison to its competitors. The company therefore follows regulatory efforts closely and through working contacts with trade associations.

Dillinger is committed to constructive climate protection efforts and proactively supports climate reversal through

its corporate activities in the area of offshore wind. However, regulatory developments regarding climate protection also carry risks for Dillinger. The European Commission, for instance, has presented a recommendation for modifying the directive for the European Emissions Trading Scheme (ETS) as a reform to the emissions trading system in the 4th trading period from 2021-2030. Although the final arrangements for the European Commission's regulations are not yet available, the current discussions and proposals in this regard suggest there will be considerable burdens due to the emissions rights that will have to be obtained together with expected concurrent price increases for the certificates.

The World Climate Conference in Morocco ended in November 2016 with the adoption of a rough schedule for implementing the climate





protection goals of Paris. While the results of the conference in Morocco accomplished the first steps toward a joint climate protection schedule, binding and comparable goals were not defined. However, on 14 November 2016, the German federal cabinet adopted the Climate Action Plan 2050. The German government will join with industry to issue a research and

development program aimed at minimizing industrial process emissions that impact the environment, with the goal of achieving a transformation to greenhouse gas neutrality. In doing so, the option of industrial carbon capture and utilization (CCU) is considered. The risk exists that the formulated goals will further burden Dillinger or could lead to distortion of international competition.

A further significant threat results from the announced review in 2017 of the EEG surcharge exemption granted to in-plant electricity production with existing plants.

In 2016, US authorities initiated an anti-dumping case against 12 countries including Germany and France. Aktien-Gesellschaft der Dillinger Hüttenwerke with its subsidiary Dillinger France have cooperated fully in this matter with the US authorities. Nevertheless, in 2016 the US Department of Commerce imposed preliminary duties on imports from various European steel companies, including Dillinger and Dillinger France. As a consequence, the company has largely suspended its deliveries to the USA. The final conclusion to the proceedings and the final amount of import duties is expected by April 2017 at the latest.

*Customers from all over the world  
put their trust in Dillinger slabs  
in the realization of demanding  
and innovative projects*

**IT risks**

Both the complex technical production processes and the administrative processes of Dillinger are supported with modern IT systems. The availability of data and information flows is therefore of central importance for Dillinger. For this reason, specific information technology segments are consolidated under the umbrella of SHS Services. Risks that endanger the confidentiality, availability and integrity of IT-supported information and systems can therefore result from human error, organizational or technical procedures and/or security gaps. In addition to the breakdown of important production- and administration-related systems within the value chain, risks due to access to systems by unauthorized third parties, such as in industrial espionage or sabotage, are notable in this regard. The software used is therefore continuously monitored by Dillinger and SHS Services, and systems are updated as needed. In addition, hardware components such as servers and networks are continuously expanded and adapted to technological innovations. Furthermore, publications are used preventatively to warn employees of dangers and to motivate them to be sensitive with respect to IT security.

Close cooperation between departments and data protection officers ensures that personal data is always processed in accordance with the regulations of German Data Protection Law.

**Human resource risks**

For Dillinger, as a manufacturer of high-tech and high-quality products, successful operation fundamentally depends on skilled employees and managers as well as on their high level of commitment. In view of this, Dillinger places great importance on being an attractive employer.

There is in general a risk of losing skilled employees, and with them, expertise. This could be due to various reasons such as retirement or a new personal career focus. The company counters this by providing training in various vocational fields. To make contact with suitable people, Dillinger undertakes various recruiting efforts. This effort also actively helps prevent the expected shortage of skilled employees. Moreover, Dillinger offers a range of advanced training options for skilled and management employees and counseling oriented to specific target groups. Regardless of this, risks caused by surplus personnel prompted by any future market conditions and the asso-

ciated, unsatisfactory utilization of capacities cannot be excluded. Dillinger is responding to this by continuing to develop the organizational structure. The company can furthermore make use of various employment policy tools such as reduced working hours and partial retirement models.

**Environmental risks**

The production processes in hot metal and steel production as well as the heavy fabrication division involve innate process-related environmental risks such as contamination of air and water. Dillinger therefore does everything it can to exclude damage caused by the product or its production through intensive quality and environmental management. For instance, Dillinger operates an integrated management system that combines quality management, workplace safety and environmental protection with incident management. In addition, the company also invests continuously in measures that increase the effectiveness of its protection of the environment and fulfill environmental requirements.

Beyond this, however, there are still risks due to the tightening of environmental constraints and regulations with requirements that may not be economically feasible with current technology.

**Organization of opportunity management**

Opportunity management at Dillinger involves the systematic handling of opportunities and potentials. It is directly embedded into the work of the Board of Directors of Dillinger. The Board of Directors identifies and discusses opportunities and potential, and when needed, conducts strategic dialogue about market and technology trends with the affected departments and subsidiaries. The Board of Directors focuses these strategic efforts on the current global drivers of growth as well as those for specific sectors, and continuously develops the company with consideration of global trends. An important contribution to these efforts is made by the strategy program PRIMUS 16, which includes various business initiatives to make use of both strategic and operational opportunities that arise. The targeted development of the company is supported with suitable objectives in the annual development plan as part of the comprehensive planning and control system.

**Strategic opportunities**

AG der Dillinger Hüttenwerke sees the internationalization of its business activities as both a challenge and opportunity. Many customers of Dillinger operate internationally or are in the process of expanding their international operations. In doing so, they are often focusing on the new growth markets. Dillinger therefore sees the opportunity to accompany this development through strategic partnerships and alliances. Relevant opportunities are being explored and assessed.

Moreover, the acquisition of new markets outside Europe that remain to be reached can be viewed as an opportunity. Dillinger is therefore strengthening its worldwide presence through expanding the sales network and is in particular leveraging potential in new and emerging markets, without giving up its market position in the traditional markets.

With the new continuous casting machine CC 6, which went into full operation during the 2016 financial year, a key element of the innovation strategy of Dillinger was implemented. The CC 6 allows the company to expand into new dimensions and quality grades and to cover an increasingly advanced product mix. Connected with this is the quest to establish the company among the top group of cost leaders in western Europe.

Dillinger sees an opportunity in the continuous development of the value chain. The subsidiary Steelwind Nordenham stands as an example of this. After a successful start of production in 2015, utilization of the capacities of the plant, which specializes in the monopile foundation structures for the offshore wind sector, has already been secured until 2018 through multiple large projects (see “Participating interests” section).

**Operational opportunities**

The operating activities of Dillinger consist of a multitude of processes that are sometimes interdependent or connected with each other through interfaces. The company sees an operational opportunity in the optimization of these in-plant processes. It may be possible through adaptation to achieve an accelerated workflow in selected processes and thus reduce throughput times and lower costs. Optimized processes offer the chance for more flexibility in production processes and workflows. This flexibility will make

the company capable of responding more quickly to changes in circumstances regarding orders and capacity utilization. Dillinger is also working to further develop its organizational structure. This is tied to the opportunity for shorter decision-making processes and more direct communication. Moreover, further development of the organizational structure as part of PRIMUS 16, and the projects and initiatives that are derived from it, may lead to cost optimizations. In addition, Dillinger is working to continue development of the management culture by implementing five pillars (culture of responsibility, trust, change, performance and dealing with mistakes) in order to meet future demands and to promote innovation. Dillinger began introducing an innovation management program in 2016. Aside from the connection to Industry 4.0 (previously described in regard to Dillinger in the Dillinger Industry 4.0 Guide), the declared goal here is in particular the targeted production of ideas and the introduction of a culture of innovation.

In the continuous and mandatory application of cost controlling methods and the – continuing – strict Cash Management 2.0, the company sees the opportunity to increase cost sensitivity among all employees and ultimately to improve cost structures.

In addition, there are opportunities in the continued merging and consolidation of the functions and activities of Aktien-Gesellschaft der Dillinger Hüttenwerke and Saarstahl AG into SHS - Stahl-Holding-Saar GmbH & Co. KGaA as well as its service companies. These should lead to a leveraging of additional synergies as processes and workflows are harmonized and improved.

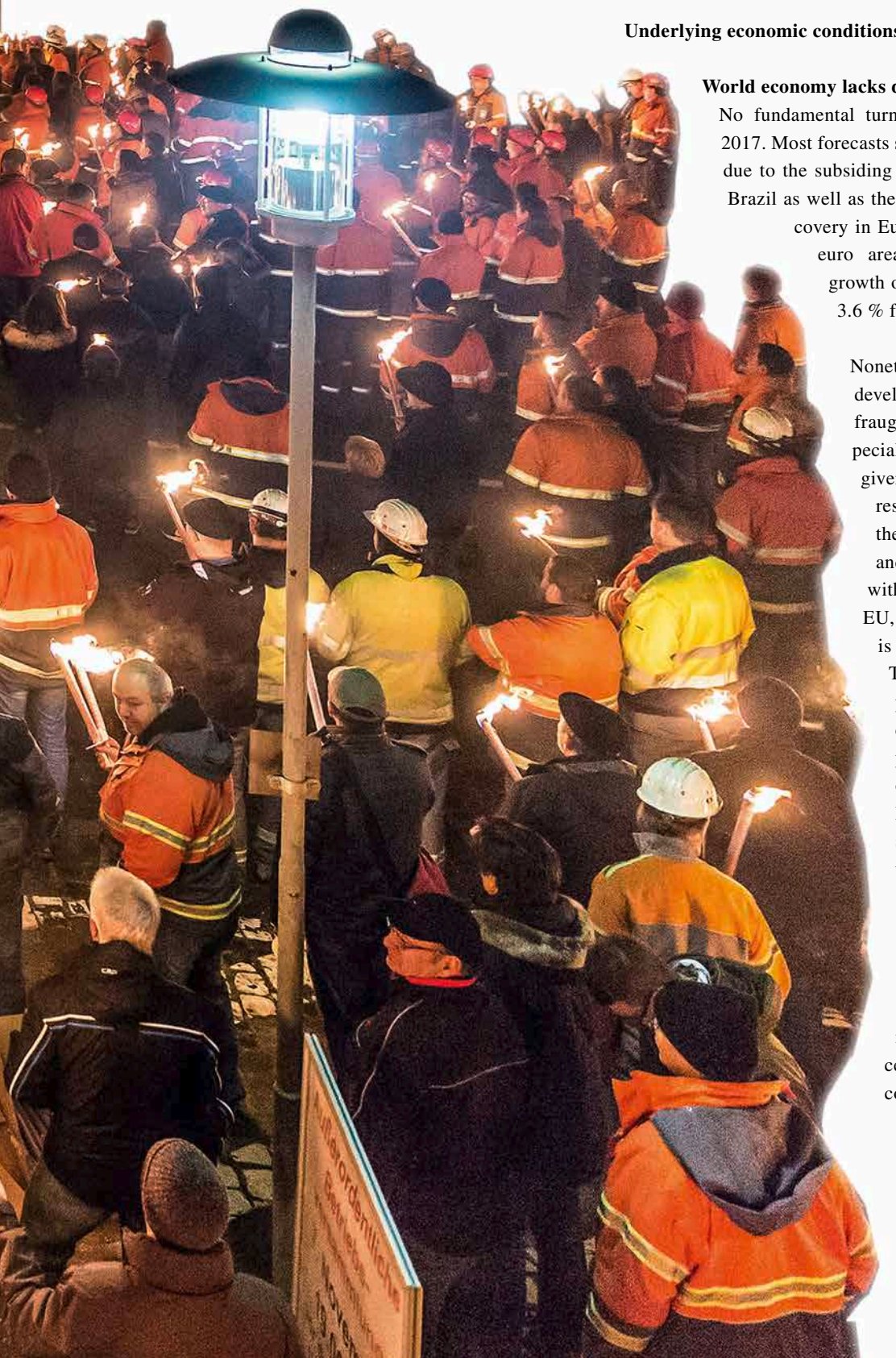
**Overall assessment of the risk situation**

On the whole, there are currently no identifiable risks that could endanger the continued existence of the company, nor are there any signs of trends that could have a major influence in the long-term on the asset, financial and earnings situation.





*„Steel is the Future“ was the motto for many media-effective events staged during the business year in order to draw attention to the steel industry*



## Forecast

### Underlying economic conditions

#### World economy lacks dynamism

No fundamental turnaround is expected for 2017. Most forecasts see a slight upward trend due to the subsiding recession in Russia and Brazil as well as the continued economic recovery in Europe, particularly in the euro area. The OECD expects growth of 3.3 % for 2017 and of 3.6 % for 2018.

Nonetheless, future economic development continues to be fraught with uncertainty, especially in industrial nations, given the Brexit vote, the result of the US elections, the geopolitical hot spots and the lacking reforms within the euro area. In the EU, GDP growth of 1.8 % is anticipated for 2017. The main driver of this performance, however, continues to be the expansive monetary policy of the European Central Bank (ECB). A self-sustaining recovery in the EU cannot currently be expected.

In Germany, growth is likely to slow in comparison. The primary causes are the uncertain global underlying conditions, which will in particular burden exports. Overall economic growth in Germany is primarily driven by domestic demand, and within this context, by

investments in residential construction and private as well as public consumption. In sum, growth of real GDP amounting to 1.3 % is expected for 2017.

**Global steel market with uncertainties**

Significant risks for the steel market are anticipated for 2017. This continues to be caused by global overcapacity, steel from China and other countries at dumping prices, and the continuing spread of protectionist tendencies in the global steel markets. In addition, there is high volatility in the raw materials markets, especially for the bulk raw materials iron ore, coking coal and scrap. Nonetheless, global steel demand is expected to grow by 1 %. Drivers of the low growth are, firstly, the emerging markets (without China), and secondly, the United States, where, after two years of decline, demand for steel is expected once again to grow in 2017. Any larger infrastructure expenditures due to the newly elected administration are likely to have their main impact not before 2018, however.

Particularly for the EU steel industry, 2017 will be fraught with significant risk. Imbalance in the foreign trade of steel in the EU already worsened considerably in 2016. This trend was caused by direct steel imports at dumping prices as well as by the effects of “rerouting” the flow of goods in the EU due to increasing worldwide economic protectionism. Consistent use of trade defense instruments will therefore be crucial in 2017 as well, especially as demand for steel in the EU stagnates due to uncertainty over the mode of Brexit along with increased stock inventories in southern Europe. If imports can successfully be curtailed, crude steel production in the EU could slightly increase in 2017.

**Situation in the heavy plate market remains strained**

Despite a forecast stabilization of global steel demand and a slightly increased consumption forecast for Europe compared to 2016, no fundamental improvements in prospects for 2017 are expected because of the current underlying conditions in the heavy plate market. The ongoing structural crisis, characterized by overcapacities and steadily growing volumes of cheap imported materials, will continue to define price competition among suppliers in Europe. Considering the recent sharp increases in raw material costs, dramatically raising the prices for deliveries in 2017 presents an additional challenge for heavy plate manufacturers.

For European construction machinery manufacturers, overall satisfactory business is expected in 2017; business prospects in the difficult machine manufacturing segment are stable, but without major growth momentum. The extent to which the cuts to output announced by OPEC and a few non-OPEC countries in 2017 will lead to a sustained increase in oil and gas prices remains to be seen. However, it is likely that even if development is favorable, investments in exploration and extraction will not grow in 2017, and the demand for heavy plate steel in the offshore oil and gas segment will not improve. Hardly any new, large projects are currently being discussed and the remaining projects are fiercely competitive. Boiler and pressure vessel construction also continues to be impacted by the wave of cost-cutting. In the steel construction sector, positive growth is anticipated in the medium term due to the start of infrastructure projects and the associated building of replacement structures. The offshore wind sector will continue to develop positively in 2017 as new wind farms are added.

**Development of Dillinger**

Expectations for Dillinger for the 2017 financial year are shaped by market conditions that continue to be difficult overall and by the many geopolitical uncertainties, and therefore are relatively subdued.

As in the previous year, the company expects utilization of capacities to be considerably above the market average. Thanks to good demand for its products on the part of the principle customers and the booking and production of plate for the Nord Stream 2 project, Dillinger is posting good utilization of plant capacities in the first months of the 2017 financial year. Despite the at least temporary omission of the United States market as a consequence of the anti-dumping issue, it now appears that basic utilization of capacities is ensured for 2017 due to the large projects already booked.

Especially considering the drastic increase in raw materials prices, Dillinger is seeking further price increases, following those already realized in the second half of 2016, which to date have nonetheless been inadequate. Dillinger generally anticipates a stabilization of prices, although the feasibility and amount of increase remains fraught with uncertainty due to the difficult market conditions.

With the continuous casting machine CC 6 that was brought online in 2016, Dillinger continues to assert its market position as a leading heavy plate brand in Europe and worldwide. With this line, Dillinger will be able to develop an increasingly advanced product mix and even more efficiently produce high-quality grades, especially in the thick plate segment. With the strategy program PRIMUS 16 and the initiatives derived from it, which are being continued in 2017, measures were introduced already in 2016 that above all enable safeguarding of the company's market position and the continued expansion of competitiveness. This includes dealing with central issues such as increasing customer satisfaction, advancing the digitalization of processes and further strengthening

the culture of innovation. Alongside this, Dillinger will not weaken in its resolve to exploit all potential in the interest of cutting costs.

Thanks to higher production and sales volumes as well as the associated price adjustments, a considerable overall increase in net sales is expected for the 2017 financial year. Provided that these additional measures to increase profitability and competitiveness prove effective and that market conditions recover somewhat – also in connection with the market mechanisms introduced by public policy-makers – balanced earnings before interest and taxes (EBIT) are expected for 2017, which will considerably exceed the level of 2016.

Dillingen, 28 March 2017

The Board of Directors



METZKEN



Dr. LUXENBURGER



Dr. MÜNNICH



SCHWEDA

# Annual financial statement (abridged)

## Balance sheet

<b>Assets</b>			
K €	Appendix	31/12/2016	31/12/2015
<b>A. Fixed assets</b>	(1)		
<b>I. Intangible assets</b>		<b>2 076</b>	2 526
<b>II. Tangible assets</b>		<b>845 065</b>	837 226
<b>III. Financial assets</b>		<b>1 227 065</b>	1 179 736
		<b>2 074 206</b>	2 019 488
<b>B. Current assets</b>	(2)		
<b>I. Inventories</b>			
1. Raw materials and supplies		<b>28 187</b>	30 691
2. Work in process		<b>86 692</b>	111 771
3. Finished goods		<b>85 060</b>	91 619
		<b>199 939</b>	234 081
<b>II. Receivables and other assets</b>			
1. Trade accounts receivable		<b>57 192</b>	59 679
2. Receivables from affiliated companies		<b>232 786</b>	179 069
3. Receivables from companies in which the company has a participating interest		<b>56 946</b>	52 427
4. Other assets		<b>189 394</b>	327 793
		<b>536 318</b>	618 968
<b>III. Cash and bank balances</b>		<b>175 514</b>	65 852
		<b>911 771</b>	918 901
<b>C. Positive difference from asset allocation</b>	(3)	<b>3 726</b>	5 087
		<b>2 989 703</b>	2 943 476

<b>Shareholders' equity and liabilities</b>			
<b>K €</b>	<b>Appendix</b>	<b>31/12/2016</b>	<b>31/12/2015</b>
<b>A. Shareholders' equity</b>	<b>(4)</b>		
<b>I. Subscribed capital</b>		<b>178 500</b>	178 500
<b>II. Capital reserve</b>		<b>378 574</b>	378 574
<b>III. Earnings reserves</b>		<b>1 150 137</b>	1 254 937
		<b>1 707 211</b>	1 812 011
<b>B. Accruals and provisions</b>	<b>(5)</b>		
1. Accruals for pensions and similar obligations		<b>405 141</b>	403 515
2. Tax accruals		<b>376</b>	378
3. Other accruals and provisions		<b>220 702</b>	259 577
		<b>626 219</b>	663 470
<b>C. Liabilities</b>	<b>(6)</b>		
1. Liabilities to financial institutions		<b>244 775</b>	143 437
2. Customer advance payments		<b>769</b>	2 132
3. Trade accounts payable		<b>52 880</b>	49 690
4. Payables to affiliated companies		<b>239 899</b>	229 514
5. Payables to companies in which the company has a participating interest		<b>89 893</b>	15 146
6. Other liabilities		<b>28 057</b>	28 076
		<b>656 273</b>	467 995
		<b>2 989 703</b>	2 943 476



## Profit and loss statement

K €	Appendix	2016	2015
1. Net sales	(7)	<b>1 636 265</b>	1 731 770
2. Changes in inventories and other own work, capitalized	(8)	<b>- 41 320</b>	41 192
3. Other operating income	(9)	<b>26 784</b>	24 690
		<b>1 621 729</b>	1 797 652
4. Cost of materials	(10)	<b>1 150 760</b>	1 169 093
5. Personnel expenses	(11)	<b>363 167</b>	343 760
6. Amortization and depreciation		<b>61 318</b>	53 006
7. Other operating expenses	(12)	<b>132 191</b>	161 036
		<b>1 707 436</b>	1 726 895
8. Income from participating interests	(13)	<b>- 11 164</b>	- 12 803
9. Net interest income	(14)	<b>- 5 717</b>	- 47 853
10. Taxes on income and earnings		<b>187</b>	187
11. Result after tax		<b>- 102 775</b>	9 914
12. Other taxes		<b>1 021</b>	1 037
13. Compensatory payment to minority shareholders		<b>1 004</b>	1 004
14. Compensatory payment due to a profit and loss transfer agreement		<b>0</b>	7 873
15. Net loss / net income		<b>- 104 800</b>	0
16. Transfer from earnings reserves	(15)	<b>104 800</b>	0
17. Unappropriated retained earnings		<b>0</b>	0

**Listing of shareholdings**

	Share of capital in %			Shareholders' equity	Results 2016	
	Currency	Direct	Indirect			Total
<b>1. Affiliated companies</b>						
<b>Domestic companies:</b>						
Saarlux Stahl GmbH & Co. KG, Stuttgart	K €	53.0		53.0	12 229	- 276
Dillinger Hütte Vertrieb GmbH, Stuttgart	K €	100.0		100.0	4 210	<sup>1)</sup>
Ancofer Stahlhandel GmbH, Mülheim/Ruhr	K €	90.0		90.0	24 613	3 335
Jebens GmbH, Korntal-Münchingen	K €	100.0		100.0	19 808	<sup>1)</sup>
DHC-Consult GmbH, Dillingen	K €	100.0		100.0	199	4
Cargo-Rail GmbH, Dillingen	K €	100.0		100.0	39	- 5
MSG Mineralstoffgesellschaft Saar mbH, Dillingen	K €	100.0		100.0	19 968	<sup>1)</sup>
Steelwind Nordenham GmbH, Nordenham	K €	100.0		100.0	89 062	<sup>1)</sup>
Raupenfahrzeuge Nordenham GmbH, Dillingen	K €		100.0	100.0	- 3	- 5
Steelwind Nordenham Projekt GmbH, Dillingen	K €	100.0		100.0	2 606	3
<b>Foreign companies:</b>						
Dillinger France S.A., Grande-Synthe	K €	100.0		100.0	113 265	- 19 184
Eurodécoupe S.A.S., Grande-Synthe	K €		100.0	100.0	- 305	47
Ancofed S.A.R.L., Grande-Synthe	K €		100.0	100.0	- 884	- 139
AncoferWaldram Steelplates B.V., Oosterhout	K €	100.0		100.0	39 938	4 062
Trans-Saar B.V., Rotterdam	K €	100.0		100.0	1 329	859
Dillinger Nederland B.V., Dordrecht	K €	100.0		100.0	423	228
Dillinger International S.A., Paris	K €	100.0		100.0	1 360	119
Dillinger Middle East FZE, Dubai	K AED	100.0		100.0	74 579	802
Dillinger India Steel Service Center Private Ltd., Mumbai	K INR		100.0	100.0	128 418	- 701
Dillinger Hütte Services B.V., Dordrecht	K €	100.0		100.0	74	5
Dillinger America Inc., New York	K USD	100.0		100.0	723	66
Dillinger Nordic AB, Alingsås	K SEK	100.0		100.0	351	564
Dillinger Italia S.R.L., Milan	K €	100.0		100.0	255	136
Dillinger Espana S.L.U., Madrid	K €	100.0		100.0	418	342
Dillinger Hutte U.K. Ltd., London	K GBP	100.0		100.0	101	- 39

<sup>1)</sup> A profit and loss transfer agreement exists.



	Share of capital in %			Shareholders' equity	Results 2016	
	Currency	Direct	Indirect			Total
<b>2. Participating interests</b>						
<b>Domestic companies:</b>						
Dillinger Hütte und Saarstahl Vermögens- verwaltungs- und Beteiligungs-OHG, Dillingen	K €	50.0		50.0	260 657	- 4 623
Zentralkokerei Saar GmbH, Dillingen	K €		50.0	50.0	137 212	<sup>1)</sup>
ROGESA Roheisengesellschaft Saar mbH, Dillingen	K €	24.5	25.5	50.0	301 636	48 000 <sup>1)</sup>
ROGESA Beteiligungsgesellschaft mbH, Dillingen	K €		50.0	50.0	3 007	- 6
Cokes de Carling S.A.S., Carling	K €		50.0	50.0	- 24 839	69
EUROPIPE GmbH, Mülheim/Ruhr	K €	50.0		50.0	65 759	8 626
EUROPIPE France S.A., Grande-Synthe	K €		50.0	50.0	- 1 016	- 9 528
BERG EUROPIPE Holding Corp., New York	K USD		50.0	50.0	237 823	31 484 <sup>2)</sup>
MÜLHEIM PIPECOATINGS GmbH, Mülheim/Ruhr	K €		50.0	50.0	15 972	1 046
Saarstahl AG, Völklingen	K €	25.1		25.1	2 336 582	- 215 379 <sup>2)</sup>

<sup>1)</sup> A profit and loss transfer agreement exists.

<sup>2)</sup> Consolidated profit

**Cash Flow Statement**

K €	FY 2016	FY 2015
1. Period result before profit transfer	– 103 796	8 877
2. Write-downs/(Write-ups) on fixed assets	54 553	53 009
3. Increase/(Decrease) in provisions	– 49 682	17 271
4. Decrease/(Increase) in inventories, trade accounts receivable as well as other assets not allocated to investment or financing activities	67 864	70 188
5. Decrease in trade accounts payable as well as other liabilities not allocated to investment or financing activities	94 568	– 21 882
6. Profit from the disposal of fixed assets	– 712	– 565
7. Interest expenses incl. interest expenses and (interest income) not allocated to investment or finance activities	5 485	48 408
8. Other income from shareholdings	11 164	12 803
9. Income tax	187	187
10. Income tax payments	4	– 547
<b>11. Cash flow from operational activities</b>	<b>79 635</b>	<b>187 749</b>
12. Payments for investments in intangible assets	– 318	– 471
13. Proceeds from disposals of tangible fixed assets	1 452	1 313
14. Payments for investments in tangible fixed assets	– 69 129	– 113 683
15. Proceeds from disposals of financial assets	11 581	56 996
16. Payments for investments in financial assets	– 145	– 48 765
17. Payments / Proceeds due to financial investments as part of short-term financial resource management	– 19 918	– 9 460
18. Interest received	13 317	14 682
19. Dividends received	8 547	10 667
<b>20. Cash flow from investment activities</b>	<b>– 54 613</b>	<b>– 88 721</b>
<b>21. Free cash flow</b>	<b>25 022</b>	<b>99 028</b>
22. Proceeds from loans	135 000	10 000
23. Payments from the amortization of bonds and loans	– 33 662	– 38 609
24. Interest paid	– 7 821	– 8 288
25. Dividends paid to shareholders	– 8 877	– 74 661
<b>26. Cash flow from financing activities</b>	<b>84 640</b>	<b>– 111 558</b>
<b>27. Net change in cash and cash equivalents</b>	<b>109 662</b>	<b>– 12 530</b>
<b>28. Cash and cash equivalents at the start of the period</b>	<b>67 009</b>	<b>79 539</b>
<b>29. Cash and cash equivalents at the end of the period</b>	<b>176 671</b>	<b>67 009</b>

<b>Offsetting and reconciliation of cash and cash equivalents</b>			
<b>K €</b>	<b>31/12/2016</b>	31/12/2015	1/1/2015
<b>Cash and bank balances</b>	<b>175 514</b>	65 852	78 382
<b>Other securities</b>	<b>1 157</b>	1 157	1 157
<b>Cash and cash equivalents</b>	<b>176 671</b>	67 009	79 539
<b>Change in cash and cash equivalents</b>	<b>109 662</b>	- 12 530	

*Also the foundations of the recently opened „Gemini“  
offshore wind farm are made from Dillinger steel  
(Photo: With kind permission of Geminiwindpark.nl)*





# Imprint

**Publisher:**

Aktien-Gesellschaft  
der Dillinger Hüttenwerke  
Werkstraße 1  
66763 Dillingen  
Phone: +49(0)6831/47-0  
Fax: +49(0)6831/47-2212  
<http://www.dillinger.de>  
e-mail: [info@dillinger.biz](mailto:info@dillinger.biz)

**Responsible:**

Ute Engel,  
SHS – Stahl-Holding-Saar GmbH & Co. KGaA  
Ines Oberhofer,  
SHS – Stahl-Holding-Saar GmbH & Co. KGaA

**Conception/Design:**

Wolfgang Schmitt,  
SHS – Stahl-Holding-Saar GmbH & Co. KGaA

**Printed by:**

Krüger Druck+Verlag, Dillingen and Merzig

**Photos:**

Uwe Braun, Aktien-Gesellschaft der  
Dillinger Hüttenwerke  
Wolfgang Schmitt,  
SHS – Stahl-Holding-Saar GmbH & Co. KGaA  
[Geminivindpark.nl](http://Geminivindpark.nl)  
Herrenknecht AG



