

# MANAGEMENT BOARD REPORT

on activities of the CIECH GROUP and CIECH S.A. in 2016



We are providing a courtesy English translation of our Management Board report on activities which was originally written in Polish. We take no responsibility for accuracy of our translation. For an accurate reading of our Management Board report on activities, please refer to the Polish language version of our Management Board report on activities attached hereto.



*Dear Sirs and Madams,*

The year 2016 is yet another period of very good financial results of CIECH Group. In the last year we attained an income of PLN 3 455 million and PLN 877 million normalized EBITDA (N) - these are the highest figures in the history of our Group. Comparing this to the previous year, we recorded a 5.6% increase in revenue and 17.2% EBITDA (N).

Such good financial results are mainly the effect of consistent implementation of our strategy - developing towards an international, more and more diversified chemical group.

In 2016 we worked mainly on completing our key investments and on developing our product portfolio in all the aspects of our business. In March 2016 we completed the second stage of SODA+200 project, allowing us to increase our production powers of soda ash in Poland by another 140 thou. tonnes per annum (up to 1450 thou. tonnes). The increase in our sales volume has significantly supported our financial results. Due to the effective efforts of our sales team, we have also managed to maintain attractive contract prices of soda sold from Poland and Germany. For the most part of the year we were also fortunate in terms of the external conditions: the fall in prices of fuels and the weakening of Polish Zloty and Romanian Ley against Euro and Dollar.

In the salt and baking soda area we mostly focused on developing specialist products. Thanks to the investment completed in 2015 (line for processing wet salt into dry salt, and new packaging line), we are currently able to produce almost all of our salt in dry form, selling our products mostly in packages. We are also working on geographical expansion, and on increasing our share in the Polish market - mostly in respect of our basic products, being cooking salt and salt tablets for water purification. Baking soda is, in turn, the object of our increased efforts in the area of developing high specialty products, such as pharmaceutical soda, including soda for dialysis.

Our development steps in the soda segment were very strongly supported by our trade marketing operations. We have successfully carried out the branding of our soda products, standardizing the packages, marketing materials, and refreshing our brand management strategy.

In the organic segment, despite the challenging agricultural market situation, we are satisfied with the effects of our works. Here, I particularly mean the multiple product registration procedures and the intense foreign expansion. In 4<sup>th</sup> quarter we carried out our second pre-season sales campaign, with repeated success. We have also succeeded in increasing our resins profitability by optimizing our portfolio towards products of higher margin. In the foams segment - apart from product development, we have achieved further benefits from the continuously performed optimizing actions.

The Silicate and Glass segment most of all saw the completion of an investment of particular importance – the replacement of the furnace for manufacturing sodium silicate, which doubles our production capacity, as well as the commencement of execution of a contract with Solvay for the delivery of this product, to be continued for many years.

In June 2016 the Ordinary General Meeting has resolved on the payment of dividend in the amount of PLN 150 million, which gives 2.85 PLN per share.

In August 2016, the shares of CIECH S.A. were introduced for trade on the Frankfurt Stock Exchange. Dual listing is our next step in realizing our strategy of foreign markets expansion. In the long term it will also allow us to expand our investor base, and, hopefully, to support the building of CIECH S.A. value for all our shareholders. I would like to proudly emphasize that we are the first company to be listed both at the Warsaw and Frankfurt Stock Exchanges.

Another element of our strategy for international development was participating in one of the previous year's largest acquisition processes in the agricultural industry. We made a decision regarding the potential acquisition transaction of companies included in the portfolio of a Portuguese company SAPEC operating in the business of manufacturing plant protection agents and plant supplements. The transaction was not effected by CIECH S.A., but we are not resigning from our geographical expansion plans. We are currently developing organically, but will be ready to seize the next attractive opportunity consistent with our development plans - potentially including acquisition.

The year 2017 has numerous challenges lying in wait for us, mostly related with higher prices of fuels, and the expected appearance of Turkish soda ash powers on the market. I believe, however, that we are well-prepared for them, and we will work hard to minimize the potential negative impact of these factors on our business. I am convinced that this will be possible not merely due to the proper management of resources and the number of initiatives undertaken in the soda ash area, but also due to our intense actions for the development of specialist portfolio - particularly in the salt, baking soda and agricultural business, which will allow us to become an even more diversified Group.

In order to fulfill these plans, apart from developing our products and sales networks, we will also be performing a number of investments. The largest capital expenditures of 2017 will be related to the continued construction of flue gas desulfuri-



zation and denitrification systems by our Polish CHP plants, to the processes of registering active substances and agricultural products, to the development of our baking soda portfolio in Germany, and to the improvement in productivity of our plants. We also remain open to new possibilities, and will consider any new, potentially interesting projects.

To conclude, I would like to give my heartfelt thanks to our Shareholders and the Supervisory Board on behalf of the entire Management of CIECH S.A. for another year of their trust and support, and to give my special thanks to all those workers particularly who are building the value of CIECH Group through their everyday work.

Yours sincerely,

Maciej Tybura  
CIECH S.A. Board President

*Dear Sirs and Madams,*

The year 2016 was particularly important for CIECH Group in the context of its development. With the full support of our strategic investor and the entire Supervisory Board, the Company Management has consistently implemented the strategy drafted upon the acquisition of the majority stake of CIECH SA by Kulczyk Investment.

According to this vision, in the nearest future CIECH is to become a company that will be setting standards for modern management, high quality of products and model co-operation with clients and business partners. The company's ambition is to become one of the best-managed and most transparent companies listed on the Polish stock exchange. A brand that brings to mind responsible development, the highest business ethics standards, and a novel model of co-operation with local communities.

We are seeing already how the implementation of our new strategy is translating into systematically improving financial results and the long-term increase in value. In 2016, the Company Management has attained the best results in the whole of CIECH Group history. This statistics confirms that the previous years were spent on intense and effective work.

However, the vision of CIECH development most of all includes ranking high on the international markets. Therefore, we responded with satisfaction to the decision of Management on the simultaneous listing of shares at both the Warsaw, as well as the Frankfurt Stock Exchange. Thanks to this step, the company has placed itself among the world's industry leaders, and its financial evaluation will be the reflection of its actual value and potential. This will allow us to strengthen the credibility of CIECH Group on the world's markets. Both our presence in Frankfurt, as well as our best corporate governance practices make CIECH one of the most transparent companies in the eyes of stock investors. I am hoping for CIECH to soon become a symbol of successful foreign expansion, and a brand to strengthen the image of our country.

We will continue to actively support any actions of the Management aiming at the implementation of our international expansion strategy, be it based on organic development or potential acquisitions. The effect of this will be long-term and consistent building of the company value, for the benefit of all its shareholders.

On behalf of the members of CIECH SA Supervisory Board, I wish to thank the Management and the Company Employees for their intense and fruitful work in the year 2016, and wish you further success in 2017.

Yours sincerely,



Sebastian Kulczyk

Chairman of the Supervisory Board of CIECH S.A.

# THE CIECH GROUP IN 2016

HIGH OPERATIONAL EFFICIENCY, CONSISTENT IMPLEMENTATION OF STRATEGY AND FAVOURABLE MARKET ENVIRONMENT WERE REFLECTED IN HIGHER MARGINS AND PROFITS OF THE CIECH GROUP

 **PLN 877**  
million  
EBITDA (N)

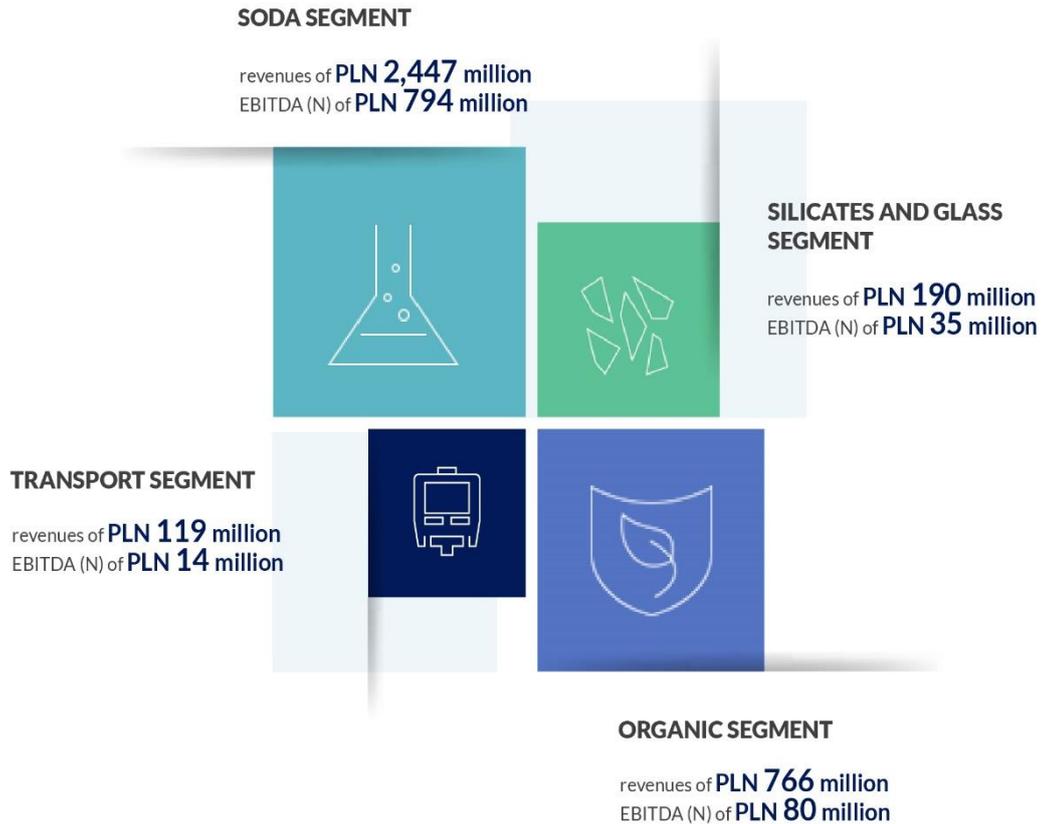
 **17.2%**  
EBITDA (N)  
growth

 **25.4%**  
EBITDA (N)  
margin

**Systematic decrease**  
in debt  
net debt / EBITDA  
at the level of 1.4

EBITDA(N) – Normalised EBITDA

## DIVERSIFIED PILLARS UNDERLYING THE CONTINUOUS GROWTH OF THE CIECH GROUP



## IN 2016 THE GROUP WORKED ON FURTHER EXPANSION OF THE PRODUCT PORTFOLIO AND SALES NETWORK, AND CONTINUED MAJOR INVESTMENT TASKS

- ❑ Completion of the Soda +200 project – extension of the soda plant's production capacity
- ❑ Extension of salt and baking soda product portfolio aimed at specialised products
- ❑ Extension of glassy sodium silicate production capacity and commencement of implementation of a contract with Solvay

## BÖRSE FRANKFURT

In 2016, CIECH S.A.'s shares were admitted to trading on the Frankfurt Stock Exchange.

CIECH S.A. is the first Polish company listed both on a stock exchange in Warsaw and in Frankfurt (dual listing).

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**OPERATING ACTIVITIES**  
of the CIECH GROUP





# 1 CIECH GROUP'S OPERATING ACTIVITIES

## 1.1 MAJOR EVENTS AND ACHIEVEMENTS IN 2016

### EXTENSION OF THE SODA PLANT'S PRODUCTION CAPACITY — COMPLETION OF A STRATEGIC SODA +200 PROJECT

1<sup>st</sup>  
quarter

Modernisation of production plants is one of the CIECH Group's priorities. The most important development programme implemented over the last two years was the extension of the production capacity of the soda plant in Inowroclaw, from 600 to 800 thousand tonnes per year, i.e. the Soda +200 project. In 2015, the first stage of this investment project was completed, as a result of which the plant's production capacity increased by 60 thousand tonnes of products per year. In 2016, the plant's production capacity was extended by further 140 thousand tonnes

### DEVELOPMENT IN THE ORGANIC SEGMENT — INTRODUCTION OF "ZIEMOWIT", A NEW PRODUCT LINE

In January 2016, CIECH Sarzyna S.A., the largest Polish plant protection products manufacturer, presented a new production line in the House and Garden category. It is an element of the strategic development of the CIECH Group's organic segment. The ZIEMOVIT brand portfolio includes, among others, two plant protection products – ZIEMOVIT Chwastox Trio 540 SL, offering not only high effectiveness and speed of action, but also broad range of weed control owing to three active substances – and ZIEMOVIT Agrosar 360 SL, which perfectly eliminates monocots and dicots from the garden. The ZIEMOVIT offer also includes substrates and high quality granulated fertilisers.

### CHANGES IN THE COMPOSITION OF THE SUPERVISORY BOARD

On 6 March 2016, Mr. Wojciech Stramski resigned from the position of the member of the CIECH S.A.'s Supervisory Board. On 7 March 2016, the Extraordinary General Meeting of CIECH S.A. appointed a new member of the Supervisory Board, Mr. Dominik Libicki.

### PAYMENT OF DIVIDEND

2<sup>nd</sup>  
quarter

On 6 June 2016, the Ordinary General Meeting of Shareholders adopted a resolution regarding the distribution of CIECH S.A.'s net profit for 2015. In accordance with the recommendation of the Supervisory Board, the amount of PLN 150,195 thousand was allocated to dividends to shareholders, i.e. PLN 2.85 per share. The amount of PLN 181,384 thousand was allocated to the company's supplementary capital. Dividend date was set on 30 June 2016 and the dividend was paid on 16 August 2016.

### COMPLETION OF THE GLASS FURNACE EXTENSION PROJECT IN CIECH VITROSILICON S.A.

In June 2016, an investment project concerning the extension of a glassy sodium silicate production furnace in CIECH Vitrosilicon S.A. was completed. As a result, the company's production capacity more than doubled. This investment project was related to a contract with Solvay signed in 2014 for supply of sodium silicate to a plant in Włocławek.

### SECURING THE SUPPLY OF TECHNOLOGICAL STEAM IN ROMANIA

3<sup>rd</sup>  
quarter

On 6 July 2016, the court administrator of S.C. CET Govora S.A. in Romania in composition proceedings, acting pursuant to the Romanian bankruptcy law, terminated the agreement with CIECH Soda Romania S.A. on the sale of heat energy (supply of technological steam necessary in the production of soda ash and silicates) concluded for a definite period of time, effective on 31 July 2016.

CIECH Soda Romania S.A. challenged the validity of the termination and took an appropriate legal action in this regard before a competent court. On 18 August 2016, the decision of Ramnicu Valcea Tribunal in Romania

### INTRODUCTION OF CIECH S.A.'S SHARES TO TRADING ON THE STOCK EXCHANGE IN FRANKFURT

On 10 August 2016, the Management Board of CIECH S.A. adopted a decision on applying for admission and introduction of the shares of CIECH S.A. in the regulated market in the basic segment of the Frankfurt Stock Exchange (Frankfurter Börse, "FSE").

The Management Board of the Frankfurt Stock Exchange has taken decisions on admission as of 22 August 2016 and introduction as of 23 August 2016 of shares in CIECH S.A. to trading in the regulated market in the General Standard subsegment of the FSE. Following the admission, CIECH S.A.'s shares are, at the same time, listed at the Warsaw Stock Exchange and at the Frankfurt Stock Exchange



was verbally announced ordering that legal effects of the termination be suspended.

On 6 September 2016, after weeks of negotiations, CIECH Soda Romania S.A. and S.C. CET Govora S.A. approved new financial conditions on the supply of steam to CIECH Soda Romania S.A. The agreement concluded for a period of 10 years ensures a stable supply of raw materials at a fixed price over the next two years. The estimated value of the agreement for the supply of raw materials by the end of 2018 is PLN 305 million.

#### **SUBMISSION BY CIECH S.A. OF AN OFFER IN A POTENTIAL TRANSACTION TO ACQUIRE SUBSIDIARIES OF SAPEC PORTUGAL**

**4<sup>th</sup>  
quarter**

On 2 November 2016, the Management Board of CIECH S.A. decided to submit an offer regarding a potential acquisition of 100% of shares in SAPEC - Agro, S.A. and Trade Corporation International, S.A. (the foresaid companies and their subsidiaries jointly – the “Companies”). The owner of these companies was SAPEC - Portugal, SGPS, S.A., a subsidiary of SAPEC S.A. listed on EURONEXT.

The companies deal with production and sale of generic crop protection and crop nutrition products. The decision to submit the offer was closely related to development plans concerning the organic segment of the CIECH Group, in particular the AGRO area.

On 5 November, SAPEC informed about signing an agreement on the sale of the aforementioned companies to the Bridgepoint fund. Thereby, CIECH S.A. ended its involvement in the process. In the opinion of the Management Board of CIECH S.A., the offer submitted was attractive and optimal in terms of potential benefits and synergy.

The Management Board of CIECH S.A. announces further strengthening of the organic segment, in particular of the AGRO business, and does not rule out future acquisitions.

(dual listing). Dual listing is another step in the implementation of CIECH S.A.’s strategy of expansion in international markets. The aim of dual listing is to broaden the investor base and focus on dynamic development and long-term building of the company’s value for all shareholders. CIECH S.A. is now listed on the same floor as the largest European chemical companies, such as BASF and K+S, and is subject to the same criteria of evaluation of the implementation of a strategy by international experts and analysts.

## **1.2 CHARACTERISTICS OF THE CIECH GROUP**

The CIECH Group is an international, professionally managed group with a well-established position of a leader of the chemical sector in Central and Eastern Europe. It manufactures products which are used in the production of articles necessary in everyday life of people all over the world - state-of-the-art products of the highest, world quality. Taking advantage of the support of a reliable strategic investor – Kulczyk Investments – it implements the strategy of global development.

The CIECH Group is a global concern focused on prospective markets.

The core sales market for the CIECH Group is the European Union, including mainly Poland, Germany and Central Eastern European countries. Products manufactured by the CIECH Group is also exported to overseas markets and sold to customers in India, North Africa and the Middle East.

Products of the CIECH Group are sold to **more than 100 countries**



FIGURE 1: KEY OPERATING SEGMENTS AND MAJOR CATEGORIES OF THE CIECH GROUP'S PRODUCTS

	 SODA SEGMENT	 ORGANIC SEGMENT	 SILICATES AND GLASS SEGMENT	 TRANSPORT SEGMENT
<b>COMPANIES</b>	CIECH CIECH Soda Polska CIECH Soda Deutschland CIECH Soda Romania	CIECH CIECH Sarzyna CIECH Pianki	CIECH CIECH Vitrosilicon CIECH Soda Romania	CIECH CIECH Cargo CIECH Transclean*
<b>PRODUCTS SERVICES</b>	soda ash evaporated salt baking soda energy	epoxy resins polyester resins saturated and unsaturated agro products polyurethane foams	lanterns and jars sodium and potassium silicates	transport services forwarding services transshipments siding operations railcar rental
<b>CUSTOMERS</b>	glass industry food detergent industry pharmaceutical households	agriculture furniture industry households	chemical food detergent industry paint industry households	major companies of the CIECH Group
<b>MARKETS</b>	global	global	global	domestic

\* In view of the change of the model of purchasing transport and forwarding services, CIECH S.A. decided to phase out operating activities of CIECH Transclean Sp. z o.o.

Products of the CIECH Group are manufactured in 8 production plants. Four largest production plants (2 in Poland, 1 in Germany and 1 in Romania) operate in the soda segment and manufacture soda ash and soda derived products (in the case of CIECH Soda Romania S.A., the plant also manufactures glassy sodium silicate and sodium water glass). The other 4 plants are dedicated to the organic segment, and to silicates and glass segment, and are located in Poland.

Strategic distribution of the Group's plants enables optimisation of logistics efforts and expansion of the distribution network which is of particular importance in the area of the soda segment's products. Plants in Poland and Germany guarantee access to key markets and stability of supplies in Europe. Owing to production in the Romanian plant, the CIECH Group strengthens its presence in fast-growing overseas markets.

FIGURE 2: PRODUCTION PLANTS WITHIN THE CIECH GROUP



The CIECH Group is the exclusive or dominant exporter of:

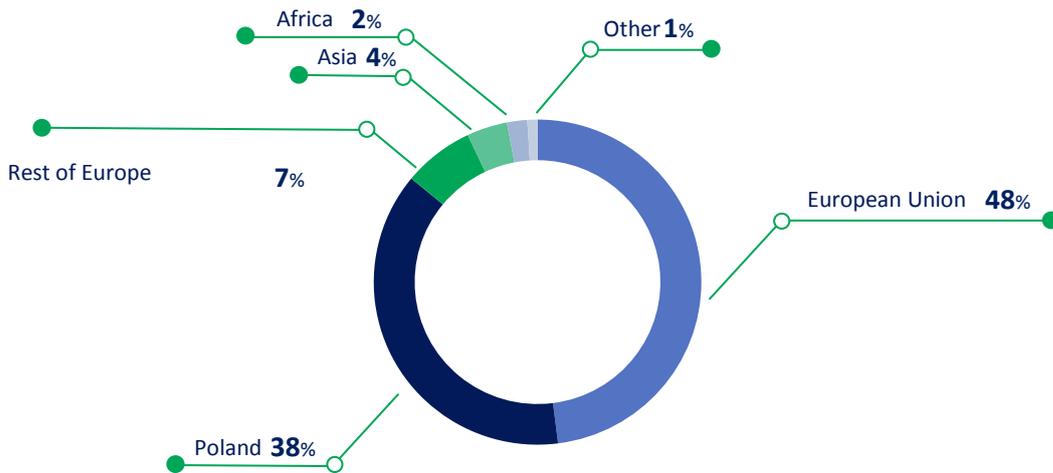
- soda ash produced in Poland (approx. 100%)
- baking soda produced in Poland (approx. 100%)
- calcium chloride produced in Poland (approx. 100%)
- epoxy resins (80%).

Additionally, the Group is a significant exporter of glassy sodium silicate and salt.

The CIECH Group is the largest producer of soda ash in the CEE region and the second largest in Europe.



FIGURE 3: GEOGRAPHICAL STRUCTURE OF THE CIECH GROUP'S REVENUES IN 2016



Source: Own compilation

### 1.3 OPERATING SEGMENTS

Activities of the CIECH Group are focused on four key segments which ensure a diversification of its business.



	<b>SODA SEGMENT</b>	<b>71%</b>   of the CIECH Group's revenues in 2016
Soda ash   Baking soda   Salt		

Soda is one of the basic semi-finished products (raw materials) of modern chemistry that finds wide application in the industry.

The Soda segment is an area with the largest share in the Group's financial performance. In 2016, it accounted for 91% of EBITDA (adjusted by one-off events). The CIECH Group is focused on utilising its business potential and key competitive advantages which result from, among other aspects, the Group's strong position on prospective markets and relations with customers, increase in production capacity and optimal distribution of production plants.

The CIECH Group develops the portfolio of high quality soda-based products – used in the everyday life of people all over the world and in many branches of industry.

There are two basic soda production methods: synthetic method – the Solvay method (soda ash) and natural – mining method (trona). The Solvay method underwent several modifications, of which the most popular is the Hou method, used by certain production companies in China. The CIECH Group produces soda using the Solvay method.

### Soda ash

Soda ash is one of the basic raw materials for the glass manufacturing industry – about one half soda ash produced worldwide is used for the production of glass. It is also used for the production of washing and cleaning products, in metallurgy and chemical industry, among others, to produce certain types of mineral fertilizers as well as dyes and pigments. There are two basic types of soda ash:

- **Light soda** – used primarily in the production of granular detergents.
- **Dense soda** – used primarily in the production of glass.

The main difference between light and dense soda is the bulk density (1 tonne of light soda is of higher volume than 1 tonne of dense soda), and the basic chemical characteristics are identical. The type of product purchased by customers depends primarily on the technology they use and on their individual preferences.

The CIECH Group sells soda ash both in bulk, as well as packed in big and smaller bags. The products sold in bulk are transported to the customer in specialist tankers or railway wagons, and the packed products – by road or railway transport. To overseas markets, soda ash is transported by ships.

The CIECH Group produces both types of soda, adapting the production structure to the customers' expectations.

### Baking soda

Baking soda is used mainly in production of animal fodder (as an acidity regulator), food (among others as an ingredient of baking powder and sparkling drinks), pharmaceuticals (e.g. for dialysis), detergents and cosmetics, and for purifying exhaust fumes.

- **Food grade soda** – a product that finds many uses in the food industry and in households.
- **Feed soda** – an animal feed ingredient intended for feed manufacturers and private farmers
- **Pharmaceutical soda** – its acid neutralisation action, potential binding with other chemicals and cleaning properties help pharmaceutical grade soda find widespread use in the pharmaceutical sector.
- **Dialysis soda** – a specially purified soda grade with specific granulometric parameters
- **Industrial grade soda** – a product widely used in many branches of industry, including: in the production of detergents, in paper industry, flue gas desulphurization industry and chemical industry.

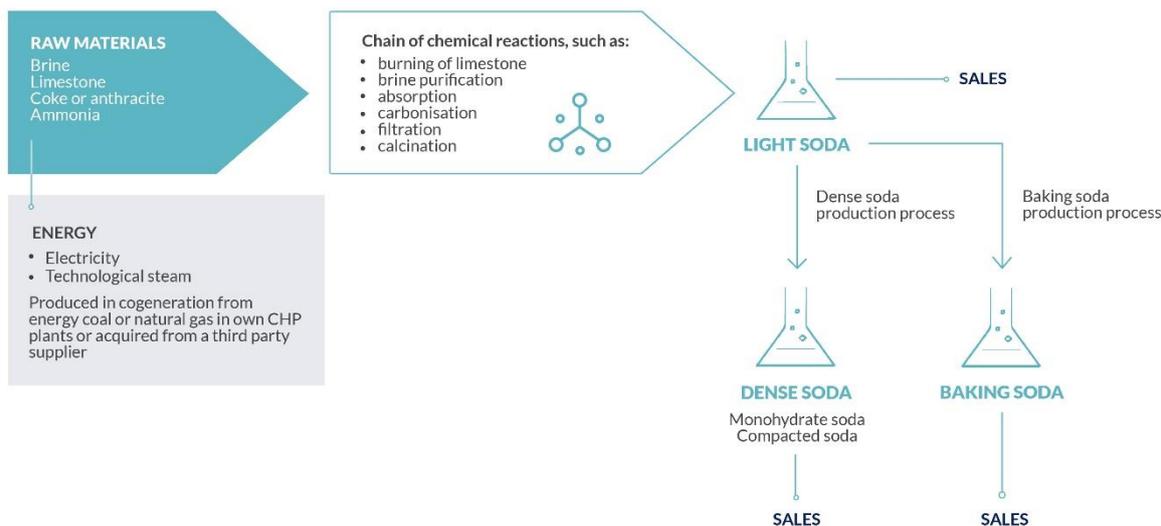


### Production processes in the soda segment

The production of soda in the CIECH Group is the responsibility of the following three companies: CIECH Soda Polska S.A. (plants in Janikowo and Inowrocław), CIECH Soda Deutschland GmbH & Co. KG (Stassfurt) and CIECH Soda Romania S.A. (Ramnicu Valcea). Soda ash is produced in all plants and baking soda – in Inowrocław and Stassfurt.

Presented below is a simplified schematic diagram of the soda ash and baking soda production process.

FIGURE 4: SODA PRODUCTION PROCESS



Main raw materials used in the production process in soda segment include limestone, salt brine, ammonia, coke or anthracite. The soda ash production plants are located in close proximity to limestone and brine suppliers (due to the high transportation costs of these raw materials in comparison with their price). Soda companies acquire these raw materials from local suppliers, based on long-term agreements. Key terms of the supply contracts, such as price and quality, are generally flexible and can be modified under certain circumstances to better reflect current business conditions. The production plant located in Germany uses also own deposits of brine and limestone.

Coke is the so-called furnace fuel, used to burn limestone and produce CO<sub>2</sub>. Coke is usually supplied based on short- or long-term contracts. In the CIECH Group's soda production process, coke can be replaced with anthracite which is slightly less efficient, but also cheaper than coke. Polish and German plants of the Group can use a mixture of both these raw materials, and the Romanian plant can fully replace coke with anthracite. Prices and availability on the market are the main factors determining which raw material is used.

The largest component of manufacturing costs in the production process is heat energy – production plants in Poland and Germany have their own CHP plants, and the Romanian company buys it in the form of technological steam from a third party supplier. Key energy-producing raw materials used by the Group's CHP plants include: hard coal (plants in Inowrocław and Janikowo) and natural gas (plant in Stassfurt). Hard coal is supplied generally under fixed price contracts concluded for several years (at least for a part of required volumes), and the price formula of gas supplied in Germany is based on market prices of this raw material.

The soda segment is intensely developed by the Group. In 2015 and 2016, a key project, Soda +200, was completed. It consisted in increasing the production capacity of the soda plant in Inowrocław by 200 thousand tonnes per year (ended in the first quarter of 2016).

Further development of activities in the soda segment will take place mainly through continuation of optimization activities with regard to production capacity, as well as the growth of product quality and concentration on more processed products. At the same time, the Group will improve the quality of service of its current clients and conduct intensive activities to attract new customers.

FIGURE 5: CIECH GROUP'S SODA PLANTS AND KEY MARKETS

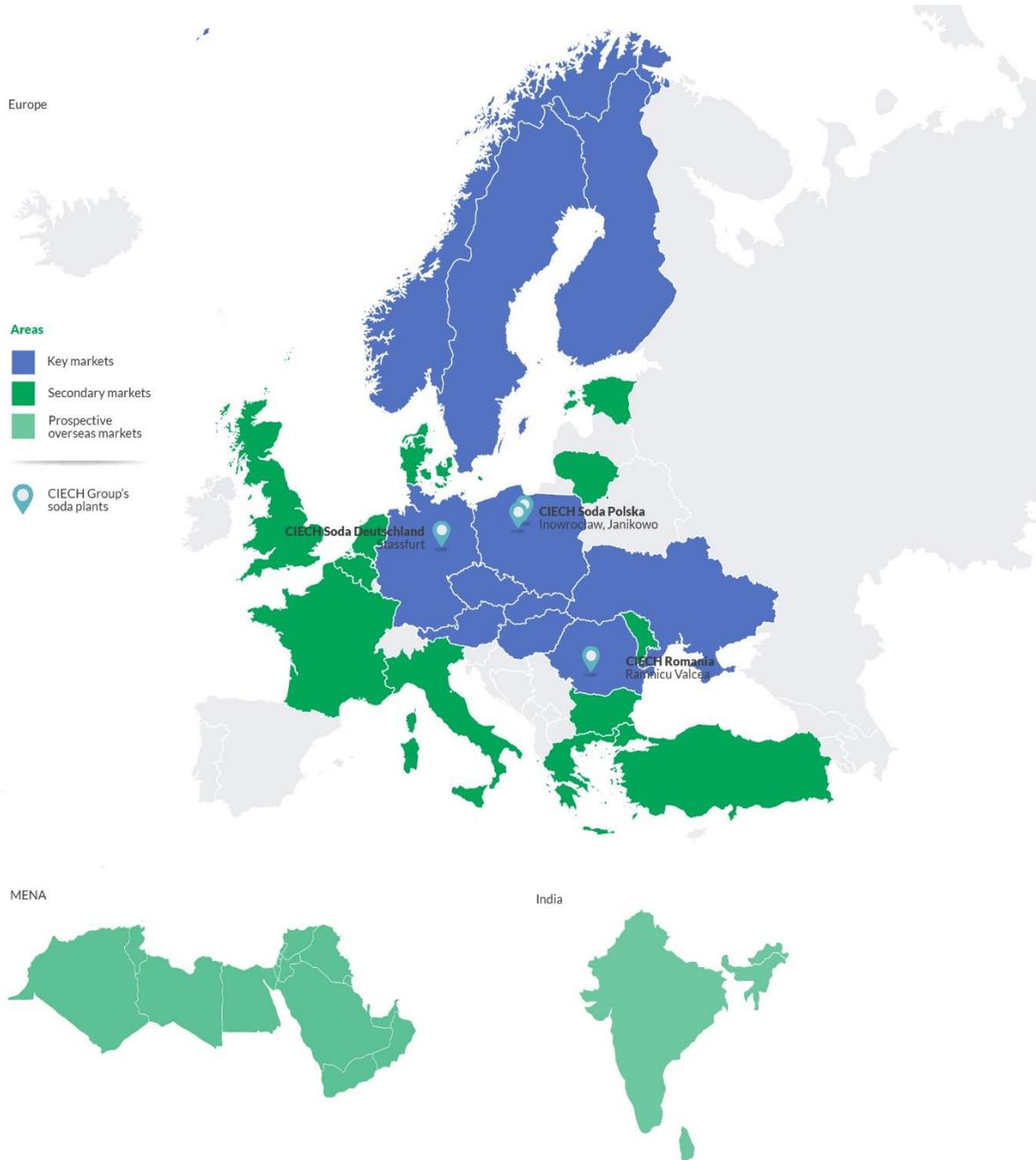




FIGURE 6: PRODUCTION CAPACITY OF THE CIECH GROUP'S SODA PLANTS  
SODA ASH



BAKING SODA\*



\* Baking soda is produced from soda ash, therefore the calculation of total production capacity of the CIECH Group should take into account the soda ash production capacity only – these two items should not be added up.

Salt

Among various types of salt, the most popular are sea salt, rock salt and evaporated salt which is produced by, among other companies, the CIECH Group. Evaporated salt is widely used in chemical industry (electrolysis, detergent and dye production), food industry, as well as water treatment and softening.

Salt products of the CIECH Group

Wet salt:

- Industrial salt – one of the components used in the manufacture of detergents, washing powders and dyes. The product finds widespread use in electrolysis and the production of soda.

Dry salt:

- Table salt and iodised table salt – produced from the saline solutions generated by the wet mining of natural rock salt beds. Table salt contains a minimum of 99.9% of sodium chloride and finds widespread use in the food industry. The CIECH Group sells salt primarily in 1 kg bags, under the brand name of Sól Kujawska and under private label brands of discounts and retail chains, as well as in larger bags, e.g. for spice manufacturers or bakeries.
- Salt tablets – used in water purification systems, e.g. to regenerate ion exchangers and multi-functional filter softeners that filter out water hardness contributors (i.e. calcium and magnesium). The key recipients of salt tablets produced by the CIECH Group include: households (private water purification systems), housing associations (water purification for new residential estates), industry (water purification for factories), as well as by such entities as swimming pools or hospitals. The CIECH Group sells salt tablets in Poland (where it holds a majority share of the market) and abroad.
- Feed salt – used in agriculture and for production of animal feeds which, owing to the salt content, perfectly supplement the diet of livestock, especially ruminants, with minerals. It is also used in emergency feeding of forest animals since it improves assimilation of potassium, magnesium and calcium.
- Pickling salt – nitrite salt (for pickling) is an essential additive used in the production of raw and cured meats. Pickling is one of the oldest forms of food preservation – preservation using salt.



At present, the CIECH Group is focused on expanding the range of specialised products in the dry salt portfolio, developing new products and new sales directions.

Owing to the implementation of the investment project aimed at intensification of dry salt production in Janikowo in 2015, the Group is able to produce a majority of volumes in the form of dry salt.

**Salt production process**

Evaporated salt is produced from the saline solutions generated by the wet mining of natural rock salt beds.

FIGURE 7: SALT PRODUCTION PROCESS

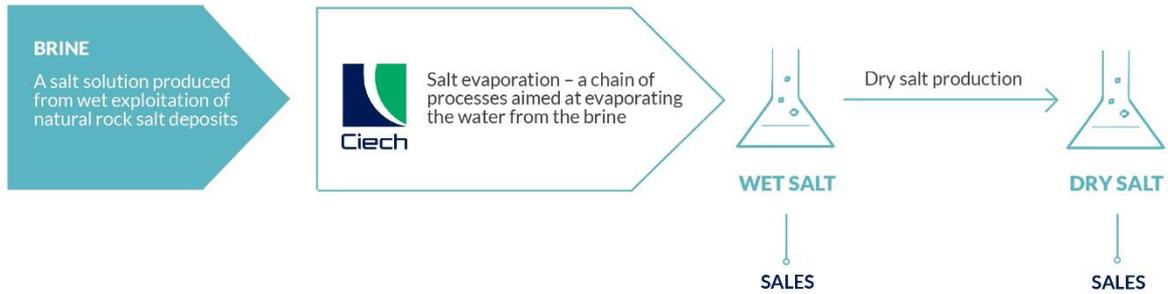


FIGURE 8: SALT PRODUCTION IN THE CIECH GROUP AND KEY MARKETS

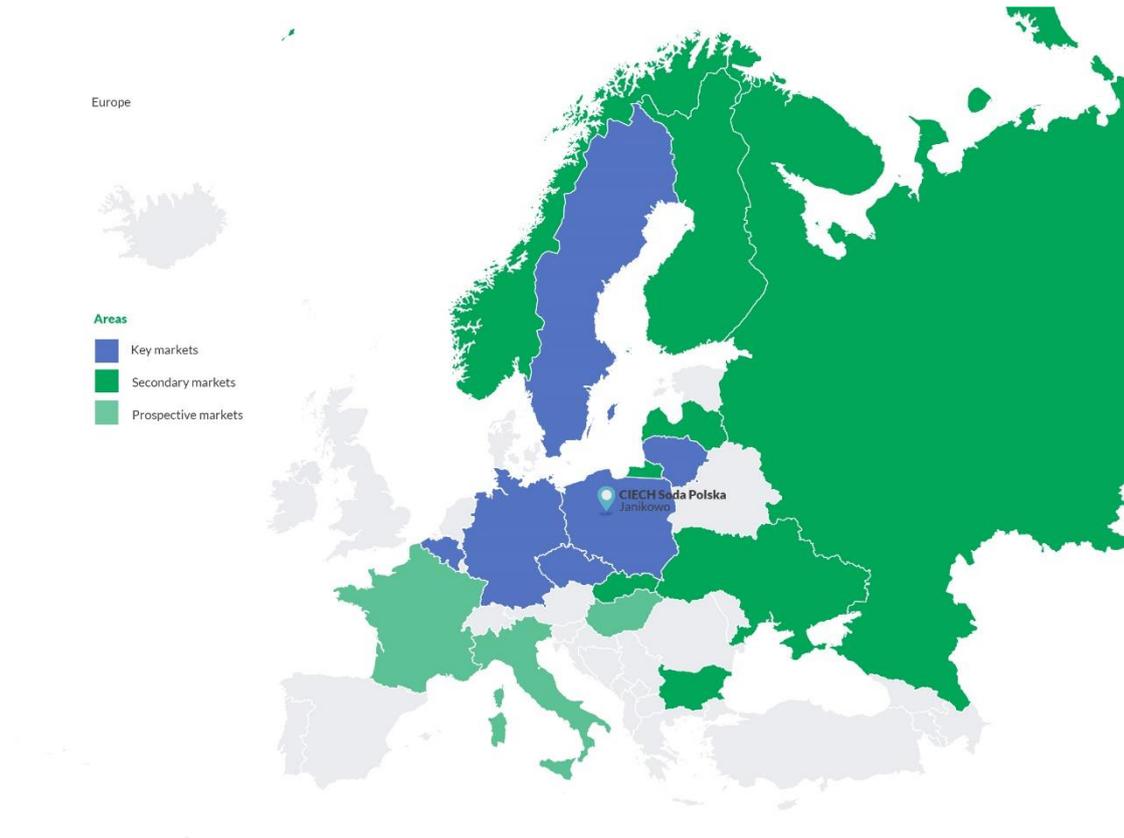


FIGURE 9: PRODUCTION CAPACITY OF THE CIECH GROUP'S PLANTS – SALT



### Sorbeco

Sorbeco is a product obtained chemically from sodium carbonate or sodium chloride and carbon dioxide. It is used by CHP plants of medium size and by CHP plants that use biomass. Its high quality ensures very good efficiency of dry desulphurisation of flue gas — lowers SO<sub>2</sub> emissions by 90%. In Poland, the market of products for desulphurisation of flue gases has been growing fast over the recent years, and this trend will be sustained due to tightening of CO<sub>2</sub> emissions standards by the European Union.

### Calcium chloride

Calcium chloride finds common use in road maintenance, building construction, the chemical sector, as well as coal, oil and gas extraction. At present, the CIECH Group is focused primarily on increasing the production volume of high quality calcium chloride.



**ORGANIC SEGMENT**

Plant protection products | Resins | Polyurethane foams

**22%** | of the CIECH Group's revenues in 2016

The organic segment is the second largest pillar of the business activity of the CIECH Group. In 2016, it generated 9% of normalised EBITDA (adjusted by one-off events). Products falling within this segment are manufactured by the following two companies: CIECH Sarzyna S.A. (plant protection products and resins) and CIECH Pianki Sp. z o.o. (polyurethane foams).

The CIECH Group is the largest domestic producer of plant protection products and the leader in the market of herbicides. It is also the main domestic manufacturer of resins which are present in European markets, and one of the largest suppliers of polyurethane (PUR) foams to the domestic market.

Petroleum derivatives are the main raw materials used in production processes of the organic segment – they constitute the largest component of production costs.

**Plant protection products**

The company that specialises in the production of plant protection chemicals (herbicides, fungicides, insecticides, seed treatment) is CIECH Sarzyna S.A. Full range of products includes over 100 items of different chemical, application and packaging forms appropriate for their target market and use. The most famous trademarks of the company include brands from the AGRO area, i.e. Chwastox, Agrosar, Sarox, Ekonom and from the Home and Garden area: the ZIEMOVIT brand. In addition to the European markets, the CIECH Group's products are sold also markets in Asia and Australia.



**Resins**

**Polyester resins**

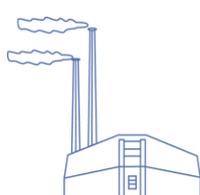
- Unsaturated – used, among others, in the production of polyester and glass laminates, glass fibre-reinforced products used in the production of, e.g. sports and tourist floating equipment, bathtubs, garden decorations.
- Saturated – used mainly in the production of powder paints.

**Epoxy resins**

- They are used in, among others, the production of powder paints, varnishes, adhesives and laminates.

CIECH Sarzyna S.A. is the only producer of epoxy resins in Poland.

FIGURE 10: RESIN PRODUCTION CAPACITY OF THE CIECH GROUP (CIECH SARZYNA)



**30 tt**

Epoxy resins



**28 tt**

Unsaturated polyester resins



**12 tt**

Saturated polyester resins

**Polyurethane foams**

Flexible polyurethane foams are used mainly in production of furniture and sleeping mattresses. To a lesser extent, they are used in the automotive industry (production of car seats and finishing elements), construction industry and textile industry.

In the area of production and sales of PUR foams, the CIECH Group focuses mainly on the Central Eastern European markets, the furniture market being the main recipient. Because of physical and mechanical properties (low specific gravity) PUR foams are sold primarily on local markets. In Poland, the consumption of flexible polyurethane foams is associated largely with the national furniture industry and its high position in the international markets (fourth world exporter of furniture – according to



B+R Studio, Furniture Market Analyses) which is consistently strengthening and the value of export of Polish furniture keeps growing.

**Development of the CIECH Group in the organic segment**

The CIECH Group diversifies its business activities and seeks to systematically increase the share of the organic segment in the EBITDA of the Group. The dynamic growth of this area will contribute to implementation of a number of new initiatives.

In the AGRO area, the key issues include the extension of the product portfolio, which is the responsibility of CIECH R&D Sp. z o.o., building new distribution channels (including foreign expansion), strengthening sales forces, intensification of marketing efforts.

As part of the strategic expansion of the organic segment, CIECH Sarzyna S.A., for many years, has been developing product brands in the agro area: Chwastox, Agrosar and others. In 2016, the

Company also introduced a new product line in the market in the Home and Garden category – ZIEMOVIT. This brand covers products such as the highest-quality surfaces, seeds, plant protection chemicals, as well as liquid and granulated fertilizers. The new-line products became available in stores in March 2016.

In the plastics area (resins), CIECH Sarzyna S.A. is optimising the current product portfolio and selectively developing new, high-margin specialist products used in the transport, construction and consumer goods segments.



**SILICATES AND GLASS (S&G) SEGMENT**

Glass products | Silicates | Water glass

**5%** of the CIECH Group's revenues in 2016

The operation of this segment is based on CIECH Vitrosilicon S.A., a company which has two production plants: in Iłowa and Żary, and on CIECH Soda Romania S.A. – a plant in Ramnicu Valcea. The Iłowa plant manufactures glass packaging products and water glass (sodium and potassium water glass), and the Żary plant concentrates on glassy sodium and potassium silicates. The plant in Ramnicu Valcea produces glassy sodium silicates and sodium water glass.

Soda and sand are the main raw materials used in the silicates and glass segment. Like in the soda segment, production is very energy intensive. Energy is generated from gas – purchased by the CIECH Group under a long-term contract (price according to the tariff approved by the Energy Regulatory Office).

**Glass products**

CIECH Vitrosilicon S.A. is the largest producer of lanterns in Central and Eastern Europe. The full range covers approx. 300 designs, including lanterns for jar candles and custom designs, dedicated to individual customers. The Company offers a wide and diversified range of lanterns for vigil lights, including lanterns in the smallest and largest sizes, as well as various decorations for the glass: frosted glass, BarvaGlass coating, through dyed glass and colourless glass.



The company is also the only Polish producer of DZK-Komfort type jars with fastening clamp. The company also produces standard Twist-off jars for the food processing industry.

The key types of glass products manufactured by CIECH Vitrosilicon S.A. include:

- decorative lanterns for vigil lights,
- containers for jar candles,
- DZK-Komfort type jars with fastening clamps,
- Twist-off jars,
- other.

The CIECH Group manufactures products within the standard range, as well as custom designs, e.g.:

- custom designs of containers for jar candles,
- instant coffee jars,
- custom designs of lanterns for vigil lights, developed exclusively for retail chains.

CIECH Vitrosilicon S.A. is also able to manufacture glass products both using colourless glass and decorated glass:

- through dyed glass,
- glass with BarvaGlass coating,
- frosted glass.



### Silicates

The CIECH Group manufactures sodium and potassium silicates. Both types of silicates are produced in two forms – solid (glassy sodium and potassium silicate) and liquid (sodium water glass and potassium water glass).

Sodium silicates are used for production of precipitated silica (about 40% of consumption in Europe, used mainly in the tire and beauty product industries), detergents (about 20%), paper, zeolites and in other industries. In developing countries, applications related to production of detergents dominates, and the total consumption of these silica is proportional to the number of citizens.

In 2016, CIECH Vitrosilicon S.A. extended the production capacity of sodium silicate. This project included the replacement of a worn out glass furnace with a modern end-fired glass furnace with approx. two times higher efficiency. It is currently one of the most state-of-the-art glassy sodium silicate production furnaces in Europe. This new furnace ensures two times higher efficiency and lower production costs.

Potassium silicates are used in the production of welding electrodes, construction chemicals, including paints and silicate plaster.

For the purpose of continued development of this segment, the CIECH Group concentrates on the use of new applications of silicates and development of high-margin products.

**TRANSPORT SEGMENT**

Transport services | Railway transport | Transshipment

**3%** of the CIECH Group's revenues in 2016

The operation of the transport segment is concentrated in the CIECH Cargo company, rendering rail transport services in Poland, within the scope of: rental of rail carriages, rail cargo transport and maintenance services of rail sidings. The main customers of the services of the CIECH Cargo company are currently the companies of the CIECH Group, but, within the framework of further development, CIECH will endeavour to effectively render transport services also to companies from outside the Group.

In view of the change of the model of purchasing transport and forwarding services, CIECH S.A. (acting as the sole shareholder of the Company) decided to cease operating activities of CIECH Transclean Sp. z o.o. with its registered office in Bydgoszcz, and to phase out the company's business. The Company's data is presented under transport segment.

**OTHER ACTIVITIES SEGMENT**

Services | Distribution | Sale and management of real property

Other Activities Segment covers mainly services rendered outside the CIECH Group and goods sold mainly by CIECH S.A. and CIECH Trading S.A., as well as foreign companies outside the scope of key segments of the Group.

CIECH Trading S.A. is a distributor of raw materials, chemical products and reagents. It supplies raw materials to many branches of the industry. A large section are products for household, cosmetic and pharmaceutical use; for milk and sugar industries, as well as the feed industry and selected branches of the heavy industry, including galvanising plants, smelters, coke plants and foundries. It also supplies water treatment and sewage treatment plants, as well as manufacturers of tires, paints and varnishes.

In addition to trading activities, this segment also includes companies that support the Group's operations in terms of, among others, sale and management of real property (CIECH Nieruchomości Sp. z o.o.), granting licences for the use of trademarks to CIECH Group companies (CIECH R&D Sp. z o.o.) and financing activities.

**Operating segments of CIECH S.A.**

CIECH S.A., as the Parent Company of the CIECH Group, holds shares in subsidiaries assigned to individual segments described above. In addition to support services provided to these companies, CIECH S.A. also carries out operating activities in the following segments:

**Soda segment** – CIECH S.A. sells soda segment products manufactured by the CIECH Group companies. Key products of this segment include: light and dense soda ash, baking soda, evaporated salt and calcium chloride.

**Organic segment** – CIECH S.A. is the main supplier of raw materials to companies operating within the organic segment.

**Silicates and Glass segment** – CIECH S.A. sells the Silicates and Glass segment products manufactured by CIECH Soda Romania S.A. Key products in this group include glassy sodium silicate and sodium water glass.

**Transport segment** – it includes forwarding activities carried out by CIECH S.A. since 2016 for its subsidiaries, i.e. CIECH Pianki Sp. z o.o. and CIECH Sarzyna S.A.

**Seasonality and cyclicity of activity of the CIECH Group**

Seasonality associated with periodic demand and supply fluctuations has little impact on the CIECH Group general sales trends. Products clearly influenced by seasonality are plant protection chemicals. Most plant protection chemicals are used in the first half of the year, during the period of intensive plant growth, when approximately 90% of the total sales of these products takes place. For other products, the Group's revenues and financial results are not influenced by any significant seasonal fluctuations over the year.

## 1.4 SIGNIFICANT AGREEMENTS AND TRANSACTIONS

### Significant agreements

Conclusion of an agreement for the supply of technological steam by CIECH Soda Romania S.A.

On 18 November 2016, a subsidiary of CIECH S.A. – CIECH Soda Romania S.A. – entered into an agreement with CET Govora S.A. based in Romania in liquidation bankruptcy (“CET”) for the supply of technological steam required for the production of soda ash and liquid silicates

The Agreement was concluded with effect as of 6 September 2016, for a fixed period of 10 years, i.e. until 5 September 2026. The parties fixed the price of steam for the period until 31 December 2018. The estimated value of the Agreement, in the period until 31 December 2018, amounts to approx. PLN 305 million.

The price of process steam for the years 2019-2026 will be determined based on the pricing formula to be agreed between the Parties through negotiations. If the Parties fail to fix the price on or before 1 December 2018, the Agreement will be terminated by operation of law, with effect on 1 January 2019. The parties may terminate the Agreement, with a period of notice of 9 months, as of 31 March 2018. The other terms and conditions of the Agreement do not differ from the terms and conditions commonly applied in transactions covered by this type of agreements.

CIECH S.A. posted information on the approval of the new financial terms for the supply of technological steam to CIECH Soda Romania S.A. in Current Report No 31/2016, and on the conclusion of an agreement for the supply of technological steam in Current Report No 37/2016.

### Agreement on the sale of thermal coal – transfer of rights and obligations

On 27 June 2016 an agreement was made by and between CIECH Soda Polska S.A, Kompania Węglowa S.A. and Polska Grupa Górnicza Sp. z o.o., under which all rights and obligations following from the agreement on the sale of thermal coal, concluded on 13 May 2015 with Kompania Węglowa S.A., were transferred by Kompania Węglowa S.A., upon the consent of CIECH Soda Polska S.A., to Polska Grupa Górnicza Sp. z o.o. Other terms and conditions of the sales agreement remained unchanged. The conclusion of the agreement was related to the acquisition of Kompania Węglowa S.A. by Polska Grupa Górnicza S.A.

### Transactions with related parties other than on an arm’s length basis

CIECH Group’s companies did not conclude transactions on the terms other than market ones. Sales to and purchases from related entities are realised at market prices.

Description of transactions concluded between related entities can be found in note 9.3. of the Consolidated Financial Statements of CIECH Group and in note 9.3 of the Financial Statements of CIECH S.A.





## EXTERNAL ENVIRONMENT





## 2 EXTERNAL ENVIRONMENT

### 2.1 FACTORS WITH MAY IMPACT ON THE CIECH GROUP'S ACTIVITIES

The CIECH Group business is largely based on the production and sales of chemical products used as raw materials and semi-finished goods in a wide range of industries, including the glass, detergent, furniture, automotive, construction, food, agricultural, pharmaceutical, chemical and consumer goods industries. The demand for the CIECH Group customers' products depends on a number of factors, including general economic conditions.

Costs of labour and energy, interest rates and other macroeconomic factors also have a significant impact on the Group's operations. Due to the fact that a significant portion of the Group's revenue and expenses is generated in foreign currencies, changes in exchange rates also affect its financial performance.

As a result, the volume and profitability of the CIECH Group companies' sales depend on these variables as well as on the economic situation in Poland, Europe, and worldwide.

#### **Situation in industries of recipients of products of the Group in Poland**

Poland is the largest sales market of the CIECH Group. The direct, most important domestic recipients of the Group's products include: glass industry, chemical and plastic products industries, furniture, agriculture, construction, food industry. The development of these sectors of the economy depends on the economic situation in Poland.

According to the data of the Central Statistical Office, the sold industrial output at constant prices during the first 12 months of 2016 increased by 3.2% as compared with the corresponding period of the previous year (in 2015 — an increase of 4.9%). In 2016, the relevant dynamics of production in the industries of significant importance to the Group's activities (as receiving or target markets) were: chemicals and chemical products (increase by 2.2%); rubber and plastic products (increase by 6.8%); manufacture of motor vehicles (increase by 7.2%); manufacture of furniture (increase by 12.1%); manufacture of food (increase by 6.4%); construction and assembly production (decrease by 14.1%).

In the past year, some weakening of economic situation in the Polish economy was noted (estimated GDP growth of 3.1% in 2016, compared to 3.3% in 2014 and 3.9% in 2015). Despite of this fact, Polish GDP growth rates were and should still be significantly higher than the average rates for the European Union.

A slight improvement of economic situation in Poland is expected in 2017 (the European Commission and International Monetary Fund project that GDP growth will amount to 3.4%). Similar trends should be expected in the chemical industry which usually develops similarly to the whole economy.

#### **Economic situation in Europe and in the world**

The activity of the CIECH Group is based, in a considerable part, on the sales of chemical products on foreign markets. The level of profitability of sales depends on the global economic situation in Europe and in the world. A weakening of the world economic situation usually results in a reduction of the demand for raw materials on world markets and hence on the amount of export turnover of the Group.

According to the forecasts of International Monetary Fund, in 2017 the dynamics of global economic development should speed up slightly (increase in GDP by 3.4% vs. 3.1% expected in 2016). The largest Asian economies will grow relatively quickly (India, China, and ASEAN countries, for which the GDP growth indicators should be, respectively: 7.6%, 6.2%, 5.1%). Among large economies, the worst conditions will be observed in Russia and Brazil; any recession in these countries in 2015–2016 should be already gone (expected increases in GDP by 1.1% and 0.5% respectively). In turn, the European Union will witness the slow-down of development (GDP growth of 1.7% in 2017 vs. 1.9% forecast in 2016).

For the chemical sector, the American Chemical Chamber (ACC) assumes that after a moderate increase in the chemical production in 2016 (by 2.2%), the following years will indicate a certain growth in productivity: by 2.9% in 2017 and by 3.3% in 2018. In the case of USA, this growth should reach 3.3% in 2017, and 4.3% in 2018. The European Council of Chemical Industry (CEFIC) forecasts that after a period of clear stagnation in 2016, the year 2017 will bring an increase in the chemical production by only 0.5%.

As regards the European construction sector, further economic growth is projected for the next 2-3 years. According to Euroconstruct, the annual average production dynamics in construction sector in the Western and Central Europe should grow up to 2.1%-2.2% in the years 2017–2019 (from less than 2% in 2014-2016).



TABLE 1: OTHER FACTORS AFFECTING THE CIECH GROUP'S ACTIVITIES

Factors	Description
Economic situation on raw material market	<p>Due to the fact that costs of raw materials account for a large share of total costs of the Group, the situation on certain raw material markets (availability and price) significantly affect the CIECH Group's activities and financial performance. Price and availability of raw materials depends largely on economic and political developments across the globe.</p> <p>Coal – situation on the market depends on a number of macroeconomic factors. The largest producer of hard coal in the European Union is Poland, but EU's import of coal (primarily from Russia, Columbia, USA and Australia) is nearly two times higher than production. Most of the coal imported to the EU is power coal, i.e. coal used by the CIECH Group in the production of heat in soda plants in Poland. Despite the fact that the Group buys it usually from Polish mines, the price of hard coal in Poland depends on the European and global situation in the area of demand and supply.</p> <p>Coke – coke prices depend primarily on prices of coking coal, from which it is produced. The largest global producer of coke is China which, at the same time, is one of the largest consumers of this raw material. In Europe, coke is produced mainly in Poland and the Czech Republic.</p> <p>Oil-derivative raw materials – used primarily in the organic segment, are linked to oil prices. Oil prices depend primarily on macroeconomic and political factors which translate into global demand and supply situation.</p>
Exchange rates of Polish zloty (PLN) and Romanian leu (RON) to euro (EUR) and US dollar (USD)	<p>The CIECH Group's main source of exposure to foreign currency risk is related to EUR and USD in which export sales are denominated. Weakening of PLN and RON (in which significant costs are incurred) in relation to EUR and USD (in which a material portion of sales is made) has a positive impact on the CIECH Group's financial performance.</p> <p>The Group applies natural hedging and hedging instruments. The Group's net exposure in 2016 was: EUR -301.4 million and USD -18.0 million.</p>
Volume of chemical production capacity on markets where the CIECH Group operates	<p>In the sectors of mass chemical products, in which the CIECH Group operates, the capital expenditures are an important barrier to entry, and in the case of the soda segment – an easy access to natural resources. For this reason, in the scope of the most important segment of the CIECH Group, the soda segment, green field investments are rare and generally done outside Europe.</p> <p>The CIECH Group's business can be significantly affected by the extension of soda ash and baking soda production capacity in Turkey. This will change the current global supply and demand situation in the short-term, increasing the supply of soda in the market and decreasing prices in Europe and neighboring regions which may have a negative impact on the Group's financial performance.</p>
Environmental requirements	<p><b>REACH system implementation</b></p> <p>In accordance with the REACH regulation, the Group's companies selling substances in quantities exceeding 1 ton p.a. have completed or plan to complete full registration of these substances by defined deadlines, which will enable them to continue their operations in the current scope.</p> <p><b>Emission trading system</b></p> <p>Production companies of the CIECH Group are included in the emission trading system. External analyses performed by the CIECH Group companies indicate that the amount of free CO<sub>2</sub> emission allowances in the 3<sup>rd</sup> settlement period (2013-2020) will be insufficient to cover the actual demand for this type of settlement units. In addition to the direct costs connected with the purchase of CO<sub>2</sub> emission allowances, the CIECH Group companies will bear higher costs of electricity due to their assumption of the costs of purchase of emission allowances from the producers.</p>



## 2.2 CHARACTERISTICS OF THE MARKET AND POSITION OF THE CIECH GROUP

### 2.2.1 SODA SEGMENT

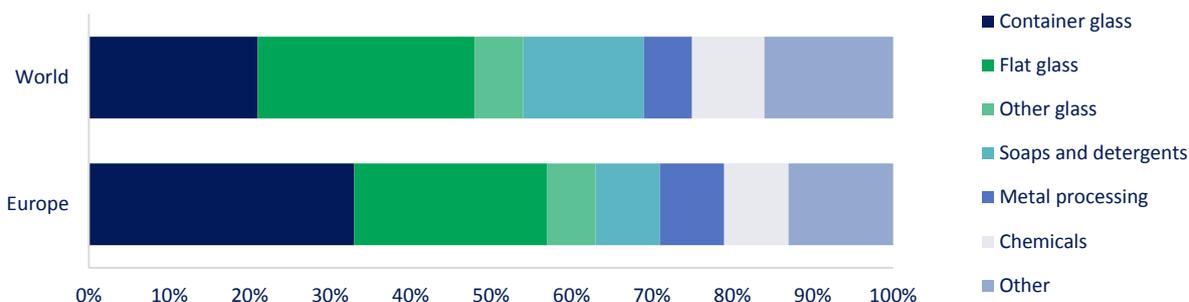


The CIECH Group is the **second European** and the **largest in Central and Eastern Europe** producer of soda ash. It is the **fifth largest** producer on the global market.

#### Soda ash

Soda ash is one of the basic raw materials for the glass manufacturing industry. It is also used for the production of washing and cleaning products, in metallurgy and chemical industry, among others, to produce certain types of mineral fertilizers as well as dyes and pigments. On a global scale more than one half of the currently produced soda ash is used for the production of glass. Further recipients of soda ash include the soap and detergent producers and the chemical industry. 1/5 of soda is used by other branches of industry.

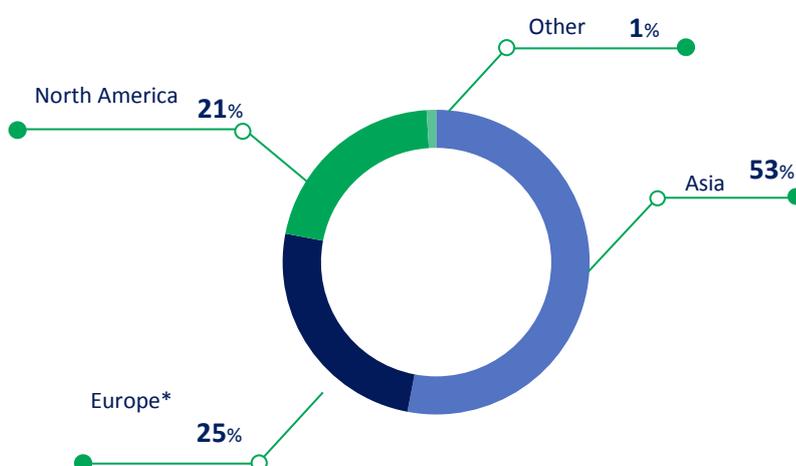
FIGURE 11: SODA ASH CONSUMPTION STRUCTURE



Source: Own compilation based on data from IHS Chemical

In Europe, the share of glass manufacturers and metallurgy sector in soda ash purchases is much larger than on the global market. On the other hand, in Europe relatively lower volumes of soda are used in the production of soap and detergents.

FIGURE 12: PRODUCTION CAPACITIES OF SODA ASH IN THE WORLD BY REGION

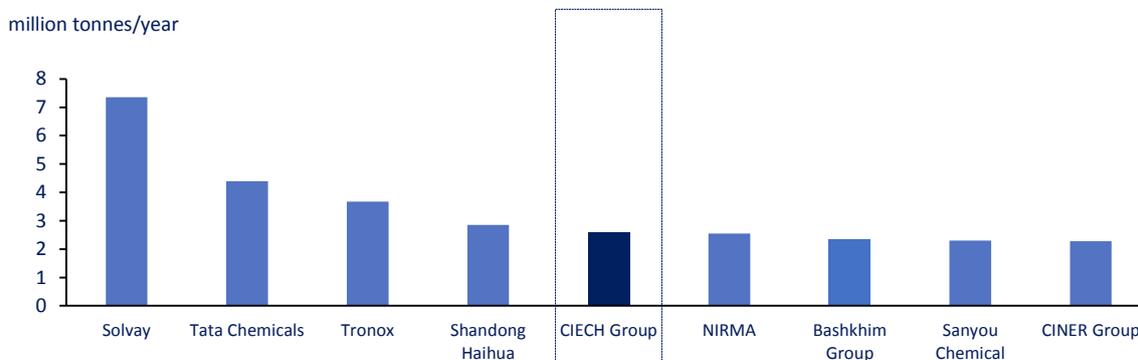


\*Europe including all of Russia and Turkey

Source: Own compilation based on data from IHS Chemical

The global production capacities of soda ash are estimated at about 65 million tonnes per year, of which over half is produced in Asia. The remaining potential is almost evenly spread between Europe and North America, which possess comparable production capacity. The largest soda ash producers in the world, with capacity of more than 3 million tonnes/year, are the following three concerns: Solvay, Tata Chemicals and Tronox. These companies have at their disposal a total of nearly 1/4 of global capacities.

FIGURE 13: LARGEST GLOBAL PRODUCERS OF SODA ASH BY PRODUCTION CAPACITIES IN 2016



Source: Own compilation based on data from IHS Chemical (includes participating interest in production companies).

It is estimated that by the end of the current decade, the significant increase in production capacity will take place: in the Middle East (more than 3.5 million tonnes/year, mainly in Turkey, based on trona deposits) and on the Indian sub-continent (more than 1.5 million tonnes/year).

The main soda ash market for CIECH Group is Europe (including CIS), especially Poland. The biggest producer in this region is Solvay company, which owned factories in 6 locations around Europe in 2016, with total production capacities estimated at approximately 5 million tonnes/year. CIECH Group is on the second position in the European market with production capacities of 2.6 million tonnes. 4 production plants of the CIECH Group are located in Poland (Inowrocław and Janikowo), Germany (Stassfurt) and Romania (Ramnicu Valcea). The CIECH Group is the sole producer of soda ash in Poland and Romania. The Group's share of the soda ash market in Poland reaches approx. 95%, around 16-18% in Europe and about 4% globally (own estimates based on market data compiled by IHS Chemical).

Demand for soda ash in Europe (including CIS) is estimated at approx. 11 million tonnes per year. European (including Polish) soda ash market is a mature market with no rapid changes, with yearly growth rates rarely exceeding several percent. Growth dynamics in Central and Eastern Europe is usually higher by 1-2 percentage points than in Western Europe.

The structure of soda ash consumption hasn't changed much for many years. The demand for soda ash depends mostly on the demand for flat and packaging glass. In Central Europe, the share of the detergent segment is relatively significant, and in Eastern Europe – the share of metallurgical sector.

According to the data provided by IHS, the European soda ash market is currently balanced. The availability of new production capacities may result in a temporary oversupply of the product in Europe and in the neighboring regions (also on the markets where CIECH Group operates), however it is difficult to currently estimate the potential impact of this development. At the beginning of the next decade, the increase in capacities should be balanced by a stable growth in soda demand.

The CIECH Group has a diversified portfolio of customers – the largest soda customer accounts for less than 6% of the Group's revenues. The Group is focused on building sustainable and long-term relations with customers.

## Baking soda

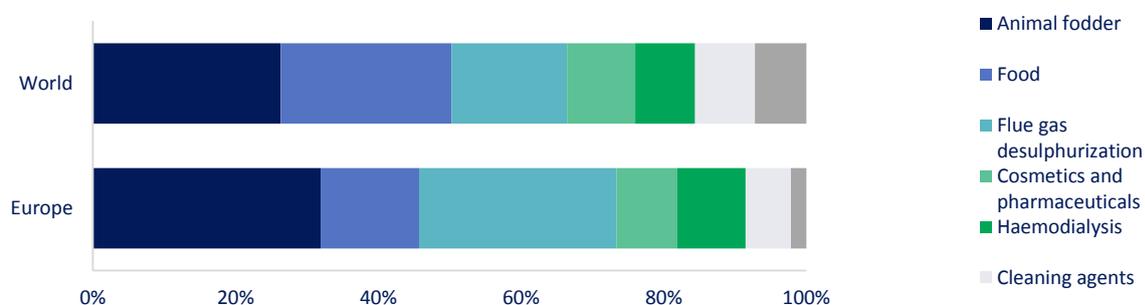


The CIECH Group is one of the three largest **baking soda producers in Europe**.

Baking soda is used mainly in production of animal fodder (as an acidity regulator), food (among others as an ingredient of baking powder and sparkling drinks), pharmaceuticals, detergents and cosmetics, and for purifying exhaust fumes (mainly for desulphurisation). In the chemical industry it is used for production of pigments and explosives as well as a basic component of fire extinguishers. The baking soda market is divided into the segments of low, high and very high quality baking soda. The high quality segment covers food and pharmaceutical industries. Very high quality is required for medical purposes — e.g. in hemodialysis.

In Europe, baking soda is used mostly in production of fodder and exhaust gas purification (respectively, 1/3 and 1/4). Other important segments are food production and hemodialysis.

FIGURE 14: BAKING SODA CONSUMPTION STRUCTURE

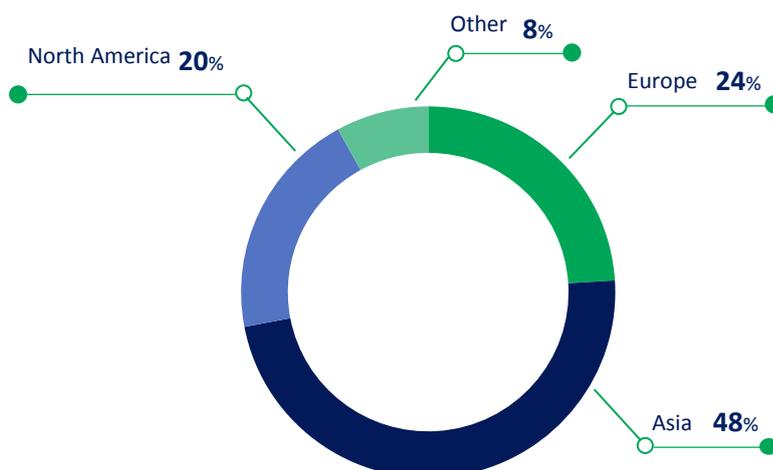


Source: Own compilation based on data from IHS Chemical

Global production capacities for baking soda are estimated at about 5.7 million tonnes per year. Asia is responsible for approx. 50% of these capacities. Europe share is nearly 25% and Northern America is 20%.

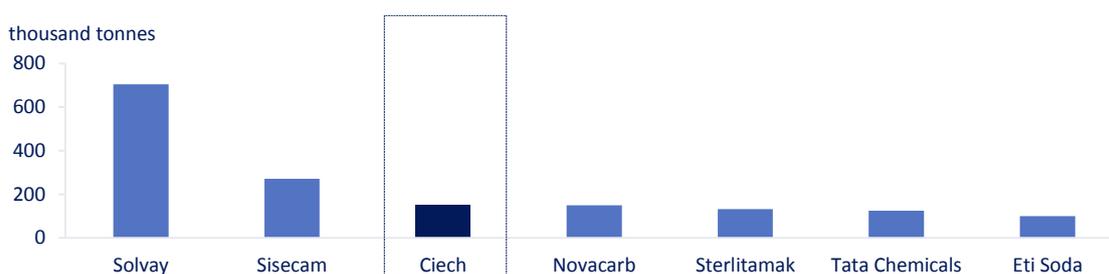
The target market for the CIECH Group for baking soda is the local market and the foreign markets, especially Western Europe. The share in the baking soda market of the CIECH Group is about 13% in Europe and 3% globally. Baking soda is produced in two soda factories of the Group: in Inowrocław and in Stassfurt. CIECH Soda Polska S.A. is the only producer of baking soda in Poland with about 55% share in the market. The CIECH Group's share in the German market is about 30%.

FIGURE 15: PRODUCTION CAPACITIES OF BAKING SODA BY REGION



Source: Own compilation based on data from IHS Chemical

FIGURE 16: LARGEST PRODUCERS OF BAKING SODA IN EUROPE AND TURKEY BY PRODUCTION CAPACITIES IN 2016



Source: Own compilation based on IHS Chemical and others

In Europe (including Turkey), the production capacities of baking soda are estimated at about 1.6 million tonnes per year. The biggest producer both in Europe and globally is Solvay, owning factories in seven countries. Currently, the CIECH Group with production capacity at 150 thousand tonnes per year is, ex aequo with Novacarb, the second largest producer in Europe (and third after Solvay and Sisecam in the region including Turkey).

Much like the soda ash markets, Polish and European markets for baking soda are mature markets, not volatile to rapid changes, with yearly growth of a few percent per year.

In the coming years, above average dynamics can be expected within the scope of hemodialysis due to an increase in incidence of illnesses related with modern lifestyle in developed countries (primarily kidney diseases caused by diabetes). Due to growing requirements of environmental protection, a major increase in usage of baking soda for fumes desulphurisation is expected.

An increase in demand for baking soda is supported by global megatrends.

The fodder industry is usually the most vulnerable to economic shifts among the target sectors for baking soda. In Poland however, this sector is less vulnerable than in most markets in Europe. These fluctuations in Poland are less severe than elsewhere in the continent.

European producers of baking soda continue to work towards intensification of production of baking soda at the expense of soda ash.



### Evaporated salt

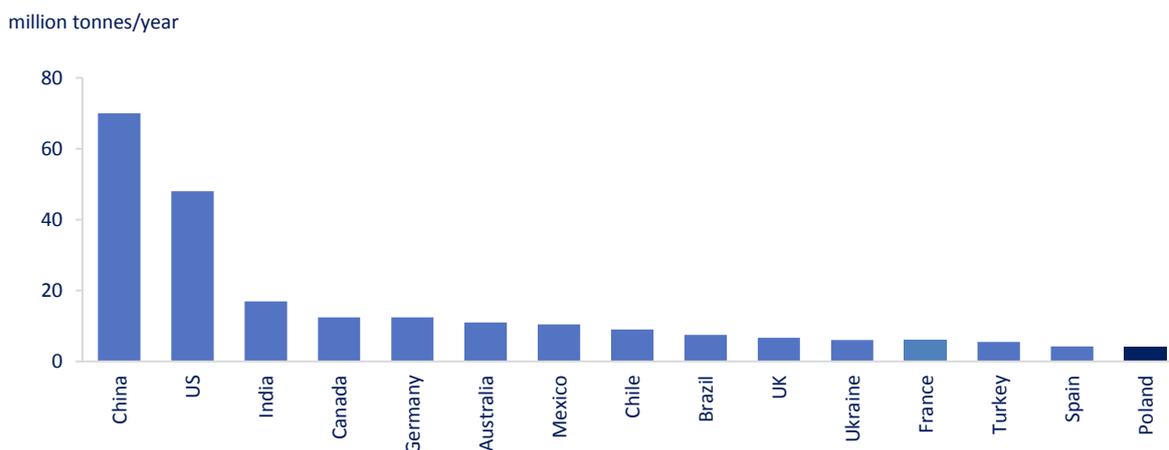


The CIECH Group is the largest Polish producer of evaporated salt, with a share in the Polish market of approx. 60%.

Salt is usually present in the European market in two forms: rock salt and evaporated salt. Evaporated salt is one of the key products of the CIECH Group, which offers varieties intended, among others, for food, fodder, water treatment, and chemical industry.

In the last several years, salt production amounted to approximately 270 million tonnes per year. The ten biggest producers (countries) are responsible for over 3/4 of global supply. Among them are only two European countries (Germany, producing approximately 12 million tonnes per year and the UK, producing 7 million tonnes per year). Poland (producing approx. 4 million tonnes per year) came 15<sup>th</sup> in the global ranking, and its share in total production reaches 1.5%.

FIGURE 17: MAJOR SALT PRODUCERS IN THE WORLD (INCLUDING POLAND)



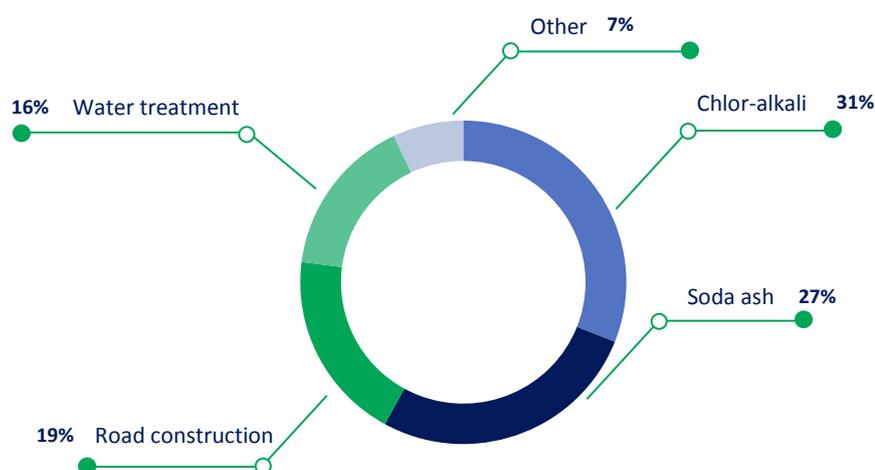
Source: Own compilation based on USGS

European salt production capacities are estimated at approximately 90 million tonnes per year (including producers using salt only for the purposes of their own chemical production, such as Solvay and Dow Chemical). The largest producer in Europe operating in the free market is Esco from the K+S Group, with capacities of more than 9 million tonnes per year and production plants in several countries of Western Europe. Other companies with large production capacities (above 5 million tonnes per year) include a Ukrainian company, Artyomsol (7.5 million tonnes per year; capacities used recently to a small extent) and a chemical concern, Akzo Nobel (6.6 million tonnes per year).

Due to advantages of evaporated salt with regards to quality parameters, chemical industry in Western Europe abandoned using of rock salt. A similar process occurred in food and households industries. Rock salt is presently used primarily in highway maintenance for winter de-icing. Evaporated salt, on the other hand, is widely used in chemical industry (electrolysis, detergent and dye production) as well as water treatment and softening. It is also used in food industry (including: baking, fruit and vegetable processing and meat industry). Evaporated salt of pharmacological purity grade is also used in pharmaceutical industry.

In Europe, most of salt is used in chlorine-alkali industry. Less salt is used for production of soda ash and in highway maintenance. Globally, use of salt in highway maintenance is significant only in North America (about 1/3). In other regions of the world, chlorine-alkali industry is the main buyer of salt. Also, soda branch (production of soda ash) in China is an important salt consumer. In Asia (outside China), Latin America, Africa and the Middle East salt is used in significant quantities for direct consumption and food production.

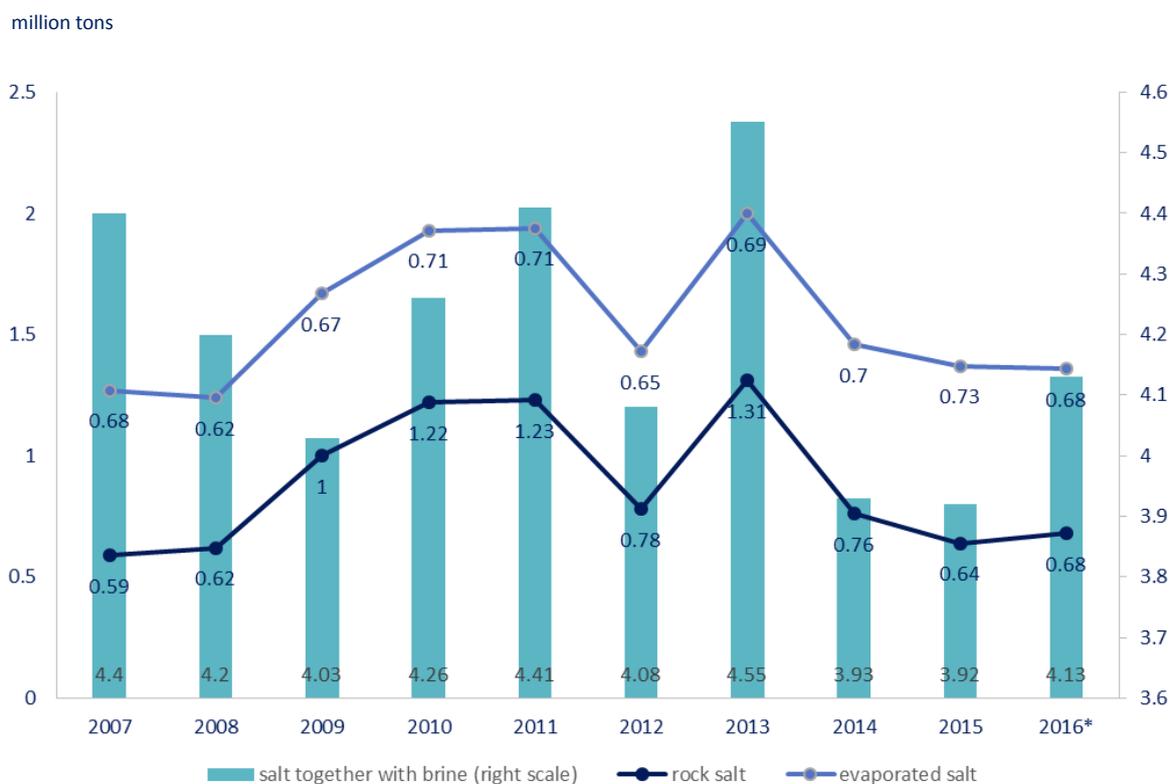
FIGURE 18: SALT CONSUMPTION STRUCTURE IN EUROPE



Source: own compilation based on Roskill

Polish salt market structure differs slightly from the one in Europe. Salt is used mostly in highway maintenance and for direct consumption, while less in chemical industry.

FIGURE 19: SALT PRODUCTION IN POLAND WITH DIVISION INTO KINDS IN THE YEARS 2007-2016



Source: Own compilation based on the Central Statistical Office.

Poland belongs to leading salt producers in Europe. Total production of evaporated salt, rock salt and brine in the recent years oscillated between 4 and 4.5 million tonnes.

Polish salt market, like Europe, is mature. The amount of evaporated salt consumption remains on the stable level demonstrating resistance to the effects of economic slowdown. The increase of sales volume is small and results mostly from the increase of sales of highly processed salt products. On the other hand, the market of rock salt used mainly for winter road maintenance is variable. The demand for rock salt in case of atmospheric anomalies can change by several dozen percent. The CIECH Group does not supply the highway sector with large quantities of salt and as a result, atmospheric anomalies practically do not influence sales volumes.

The CIECH Group plays an important role in the following segments: table salt (food industry and direct consumption use majority of total salt produced by CIECH Soda Polska S.A.); chemical industry and water treatment.

The CIECH Group with its production capacity of 620 thousand tonnes per year is the biggest producer of evaporated salt on the Polish market, with a market share of approximately 60%.

In the coming year, the directions and further development of the global salt market, estimated for about 270-280 million tonnes per year, will be determined by general economic development (because of important role of chemical industry in salt consumption) as well as seasonal factors (due to important role of salt in road maintenance in the developed countries). Development of plants in Asia (with regard to chlorine-alkali and soda ash) will be especially important for the chemical sector. The forecast global salt consumption rate should not be higher than in previous years, i.e. it will amount to 1%-2% on average per year.

Due to global economic, social or demographic trends, specialist products become more and more important in the salt industry. There is a growing awareness of the need to improve water quality – an increase in demand for

There is a worldwide increase in demand for specialist products of the salt industry – salt tablets, salt used in the pharmaceutical and food industries.

salt tablets from many industries and from households is visible. In turn, increasing volumes of evaporated salt of pharmaceutical purity grade are used in pharmaceutical industry. Due to the development civilization diseases related to lifestyle in developed countries, expenditures on health care are growing. The quality of pharmaceuticals also improves, which determines the increase in consumption of salt used in this industry.

The prospects for evaporated salt market development in Europe, including Poland, are stable. The possible quantitative increases will depend on sales dynamics in the sector of highly processed products, e.g. for water treatment systems. Because of the dominating position of rock salt (used mainly in road maintenance) in the total salt market, sales of this type of salt will still be dependent on atmospheric conditions and can be subject to significant periodic fluctuations. Such events do not influence table salt segment and salt used for chemical industry.

## 2.2.2 ORGANIC SEGMENT

### Plant Protection Chemicals (PPC)



The CIECH Group is one of the largest domestic producer of plant protection products and leaders in the domestic market of herbicides.

It is estimated that in 2016, the value of sales in the global market of plant protection chemicals reached USD 50 billion and was approximately 2.4% lower than in the previous year. This decline was caused primarily by: large inventories held by distributors (in particular in Latin America), appreciation of USD, low prices of cereals and key herbicide – glifosat, as well as negative impact of the El Niño current (mainly in Brazil). The largest drop in sales was recorded in Latin America (nearly 7%). North America was the only region to record growth (by a approx. 1%).

More than 40% of sales of global plant protection chemicals is attributable to herbicides. Insecticides correspond to nearly 1/3, while fungicides — approximately 1/4 of the value of the global market.

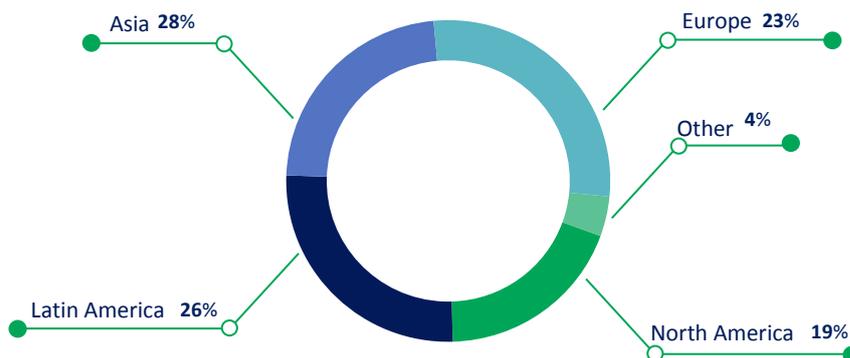
FIGURE 20: STRUCTURE OF GLOBAL CONSUMPTION OF PLANT PROTECTION CHEMICALS BY TYPE AND BY VALUE



Source: Own compilation based on Kleffmann

In 2016, the world market was still dominated by 6 main global producers, i.e. Syngenta, Bayer CropScience, BASF, Dow AgroScience, Monsanto and DuPont. These companies are main contributors to the world markets because they significantly influence directions of the industry development, including: development of new technologies and introduction of innovative products to the market. Share of the above-mentioned producers in total world sales of agrochemicals (not only for direct protection of plants) is estimated at about 70%. As a result of mergers (of Dow Chemical with DuPont and of Bayer with Monsanto), in 2017, the number of leading players will be reduced to 4.

FIGURE 21: STRUCTURE OF SALES OF PLANT PROTECTION CHEMICALS BY REGION (% OF VALUE)

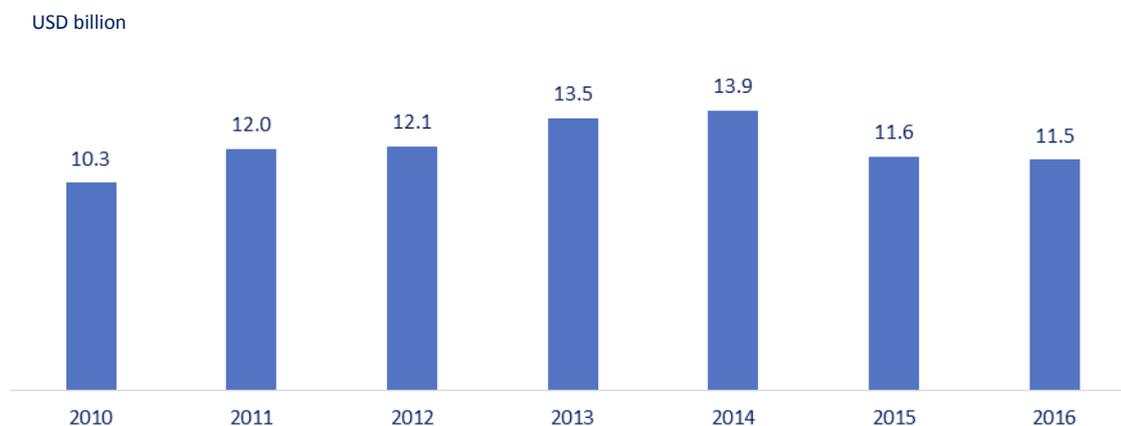


Source: Own compilation based on Phillips McDougall

Asia and Latin America are currently the largest regional markets of plant protection chemicals with shares in global sales amounting to 28% and 26% respectively. Slightly smaller markets are Europe and North America (about 20% each). The value of the European market in 2016 can be estimated at approx. USD 11.5 billion. Consumption of plant protection chemicals in the other regions amounts to the remaining few percent of global consumption.

Since the beginning of the 20<sup>th</sup> century until the half of this decade, demand for PPC in Europe has been growing rapidly (by several per cent annually, according to the value). In the previous two years, demand denominated in USD was declining, which was associated largely with the strengthening of the currency. In general, prospects for further development of the European market of plant protection chemicals can be assessed as positive, especially in the area of generic products manufactured by the CIECH Group.

FIGURE 22: SALES OF PLANT PROTECTION CHEMICALS IN EUROPE IN 2010-2016



Source: Own compilation based on Phillips McDougall.

For a number of years, the biggest European markets for PPC are Spain, Italy, Germany, Poland, UK and Russia.

Since the beginning of this decade, the consumption of plant protection chemicals in Poland fluctuated between 70-95 thousand tons per year. Despite the overall upwards trend in local PPC production, the Polish market is dominated by foreign suppliers with a very wide range of products.

Significantly more herbicides and fungicides are used in Poland com-

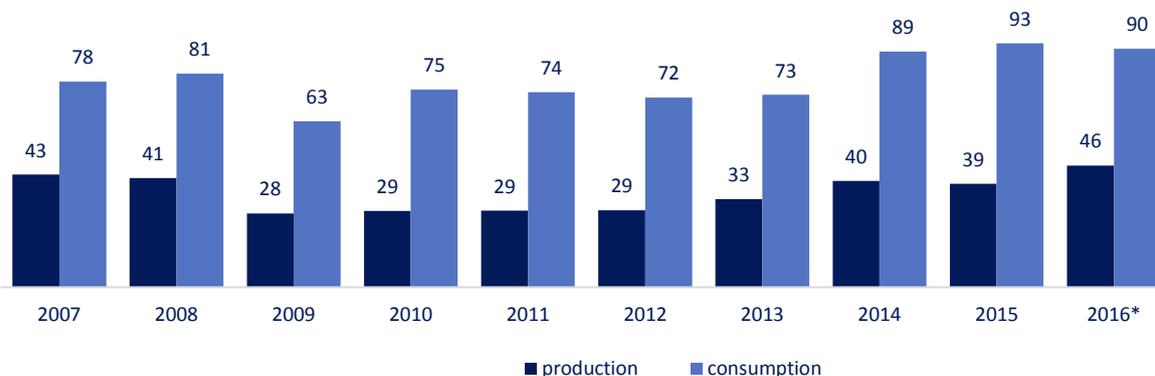
Despite a temporary decline in the market size in 2015-2016, long-term prospects for growth on the PPC market remain attractive.



pared to world consumption because of high percentage of grains in general cultivated area and considerable importance of gardening. In turn, insecticides are used in much smaller quantities.

FIGURE 23: VOLUME OF PRODUCTION AND CONSUMPTION OF PLANT PROTECTION CHEMICALS IN POLAND IN THE YEARS 2007-2016

(in thousand tonnes)



Source: Own compilation based on the Central Statistical Office and Eurostat (\* estimates based on preliminary data)

The Polish market of plant protection chemicals should continue to grow over the following several years. Unit consumption of products per 1 ha is still much lower in Poland than in Western European countries. Moreover, it can be assumed that economic situation of Polish farmers should be sustained due to direct subsidies received from the European Union. Additionally, controversies concerning genetically modified plants (GMO) should effectively influence the higher demand level for traditional plant protection chemicals.

The Polish market of plant protection chemicals should systematically grow over the following several years.

High level of import is specific to Polish market and amounts to approximately 70% of consumption in terms of weight. The reason of such a high disproportion is lack of sufficient offer of Polish producers, who have much less of financial resources to conduct research on new products, their registration and marketing.

Global concerns and several local producers are main participants in the Polish market. CIECH Sarzyna S.A. is one of the largest domestic producers. The company's activity regarding plant protection chemicals is focused on the Polish market, where the CIECH Group has a share of 6% (by value). This share is much higher with regards to grain herbicides segment, which is the company's main product group, and amounts to about 20%.

It is expected that over the next 5 years the rate of further growth of global demand for plant protection chemicals should amount to 2.5%-3% on average per year (by value). The main growth factors will be Latin American and Asian markets.

Market forecasts are based on the assumption of decreasing arable land area on the global scale, increasing population and the resulting necessity of constant yield increase. On the other hand, various national and international regulatory bodies, whose task is to monitor pesticide use in order to lower their negative influence on the natural environment will stimulate the uncontrolled pesticide consumption.

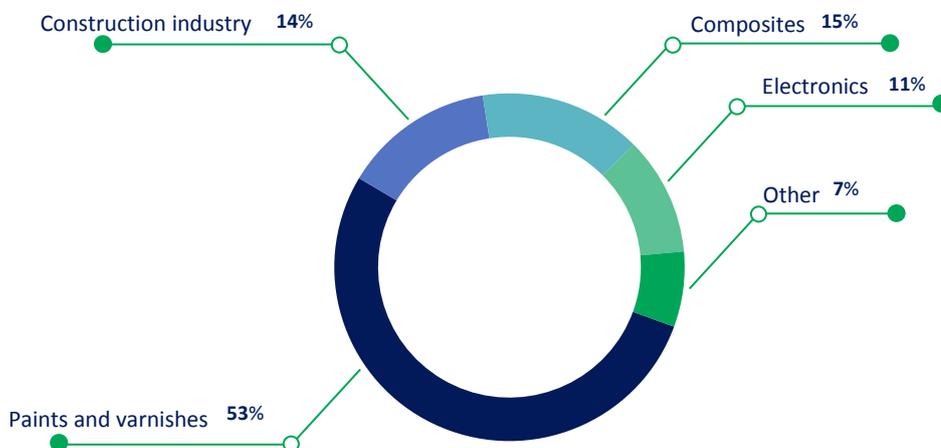
**Epoxy and saturated polyester resins**

 The CIECH Group is the sole Polish producer of epoxy resins and a prominent supplier of epoxy resins to European markets.

In Europe, epoxy resins are used primarily — in more than 50% — for the production of powder paints and varnishes (chemically resistant, insulation, electrical insulation). Another dozen percent of resins is used in the construction sector (screeds, sealants, fillers, binders, coatings, wall coverings). Approx. 15% of epoxy resins is consumed for the production of

composites, another 10% — in electric and electronic sectors. Only in Central Europe is the share of the coatings segment (paints, etc.) in the entire market for these resins exceptionally high, reaching 2/3.

FIGURE 24: APPLICATION SEGMENTS OF EPOXY RESINS IN EUROPE

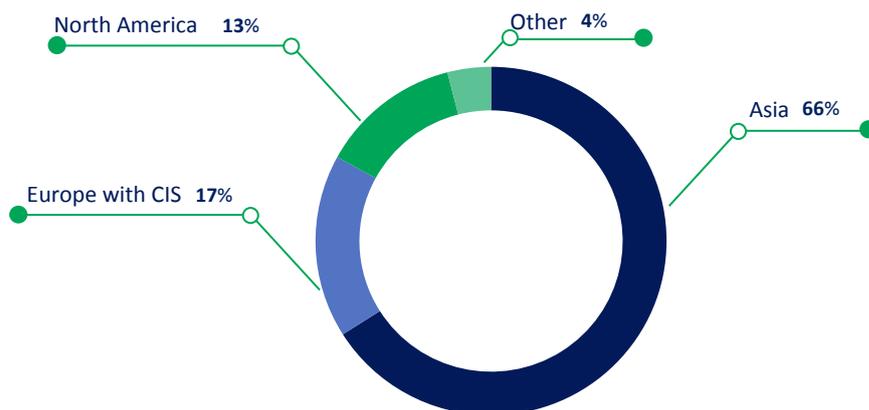


Source: own compilation based on the IHS data.

Global production capacity of epoxy resins (liquid and solid) is estimated at 5.2-5.3 million tonnes per year: Asia (more than 2/3), Europe and CIS (about 900 thousand tonnes per year), North America (about 700 thousand tonnes per year). Investment projects with regard to new capacities are located mainly in Asia. The largest world resin manufacturers include: Hexion (previously Momentive), Dow Chemical, Nan Ya (Taiwan), Huntsman Advanced Materials and KUKDO (South Korea). The above-mentioned companies are collectively responsible for more than 50% of the world production of these resins.

The CIECH Group, through CIECH Sarzyna S.A., is the only producer of epoxy resins in Poland. Production capacity of the Group is estimated at 30 thousand tonnes per year and its share in the national market, estimated at 17 thousand tonnes per year, is approximately 30%. The biggest competitors in Poland are suppliers from the EU and Far East. Primary export markets of the CIECH Group are Western and Central European countries.

FIGURE 25: GEOGRAPHIC STRUCTURE OF EPOXY RESINS PRODUCTION CAPACITY



Source: Own compilation based on the IHS data.

The global market size of epoxy resins (liquid and solid) in 2016 is estimated at 3.2-3.3 million tonnes per year. The demand in Europe (including CIS) is estimated at about 430 thousand tonnes per year and the CIECH Group's share – at 4%.

In spite of increasing consumption, usage of production capacities in Europe is very low (50%). This results from a significant increase in production capacities in previous years, relatively low local demand and imports – in particular from Asia.

In the long term, the prospects for increase of demand are quite optimistic (globally by 3%–4% yearly on average). A similar increase will characterise development in the largest market — Asia; it will be slightly slower in North America. The lowest increases of about 2%–3% are expected in Western Europe. Above average growth prospects are also assumed for a relatively small market of Central and Eastern Europe. The primary sales markets of the CIECH Group are: Poland, Italy, Germany, Finland, Austria and UK.

The CIECH Group implements a development programme for new products dedicated to the fast-growing composite

The main consumption growth factor of epoxy resins in the following years will be glues and composites for aviation and wind power plants (in North America and Europe) as well as electronics and powder paints (in the Far East and South-East Asia region).

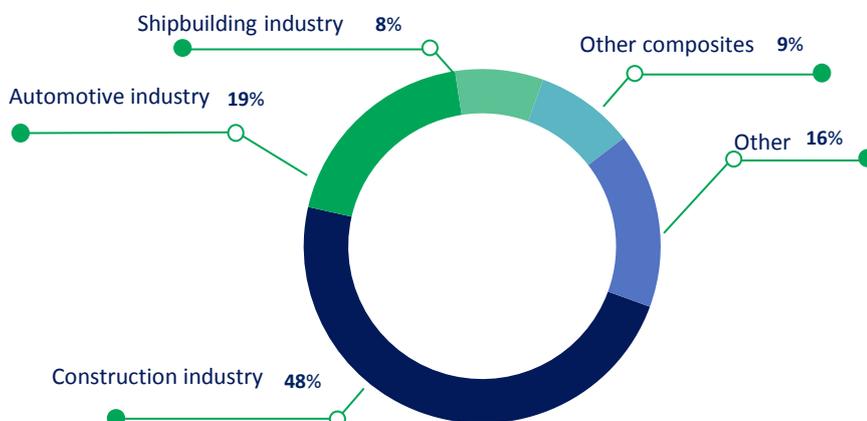
In the powder paint segment, important substitutes for epoxy resins are saturated polyester resins. The CIECH Group is also a producer of such resins through CIECH Sarzyna S.A., with production capacities of 12 thousand tonnes per year. Saturated polyester resins are used primarily for production of solvent-free powder paints. The European market for these products is developing at the rate of 2%–3% on average per year.

The saturated polyester resins market is largely concentrated. Trade within Europe is intensive, while inter-continental trade remains insignificant. The largest net importers are Germany and UK, while the largest net exporters are Austria, Spain, Italy and the Netherlands. Growth of the saturated polyester resin market results primarily from the development of the segment of powder paints for mass transport in Germany, France, UK and the Czech Republic. The primary sales markets of the CIECH Group are: Poland, Italy, Germany, Belgium, UK, Romania and the Czech Republic.

### Unsaturated polyester resins

The global production capacity of unsaturated polyester resins is estimated at approximately 7 million tonnes per year. Of that, approximately 1 million tonnes per year is produced in Europe (including CIS).

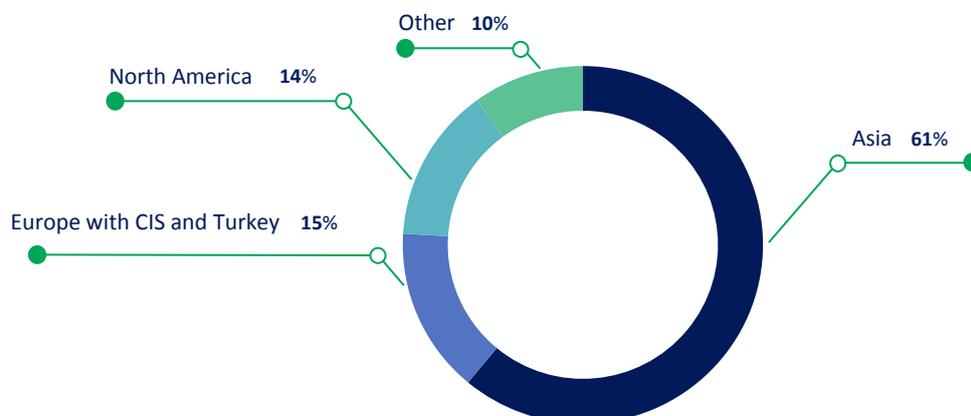
FIGURE 26: APPLICATION SEGMENTS OF UNSATURATED POLYESTER RESINS IN EUROPE



Source: Own compilation based on the IHS data.

The majority of unsaturated polyester resins in Europe is used in construction and transport industries. The demand of these two sectors amounts to approx 2/3 of the market share.

FIGURE 27: GEOGRAPHIC STRUCTURE OF UNSATURATED POLYESTER RESINS PRODUCTION CAPACITY



Source: Own compilation based on the IHS data.

More than 30 producers of these resins are active in Europe. The biggest five international concerns own about 60% of the European production capacity. These include international concerns: Polynt and Reichhold (in the course of a merger announced in 2016) DSM, Ashland and Scott Bader. Small producers usually focus on high value market niches because of very strong competition.

The largest producer of unsaturated polyester resins in Poland is Lerg S.A. The second largest producer is the CIECH Group (with capacity of approx. 30 thousand tonnes per year). A significant portion of sales is directed to the domestic market (of approximately 60 thousand tonnes per year), where the CIECH Group holds a share of approx. 18%. Resins from CIECH Sarzyna S.A. are also supplied to other European markets.

Important competitors on the Polish market include (in addition to domestic companies) suppliers from Finland, Italy, the Czech Republic, Germany, France and the Netherlands.

The unsaturated polyester resins markets in Europe (including CIS) is estimated at about 600 thousand tonnes per year.

Because the use of resins is highly dependent on the economic situation in construction and transport industries, a moderate growth rate is expected for this market in Europe in the upcoming years (in line with GDP growth or slightly higher).

Construction industry (pipelines, tanks, structural elements, synthetic marble, etc.) will have the most significant impact on resins sales on the European market in the coming years. Also automotive industry will be important (substitution of metal parts with the ones made of resins). However, these two sales directions will be characterized by a pretty slow increases. On the other hand, exceptionally fast demand increase is expected from currently not very important segment of wind power plants. This will depend mainly on support for development of renewable energy sources by the European governments.

#### Flexible polyurethane foams (PUR)



The CIECH Group has about 16% share in the polyurethane foam market in Poland.

Flexible polyurethane foams are used mainly in production of furniture and sleeping mattresses, which amount to about ¾ of consumption of this material. Another 20% is used in automotive industry for production of seats and interiors.

FIGURE 28: APPLICATION SEGMENTS OF FLEXIBLE POLYURETHANE FOAMS IN EUROPE



Source: Own compilation based on the IAL Consultants data.

Because of physical properties (low specific gravity) PUR foams are sold only on local markets. Therefore production base develops close to potential buyers. The CIECH Group is active mainly on the Polish market. However, export sales are being developed as well. Furniture manufacturers and foam processing plants are clients of the Group.

Globally, production of polyurethane foams is very fragmented (over a thousand producers of total production capacity of over 5 million tonnes per year). Production capacities of Polish producers are estimated at about 210 thousand tonnes per year. Major competitors of the CIECH Group on the Polish market are: Eurofoam, MZCH Organika and Vita Polymers. IKEA also hold large production capacities, however, they are designated mainly for internal purposes.

The CIECH Group, through Ciech Pianki Sp. z o.o., has about 16% share in the Polish market of flexible foams.

European demand for polyurethane foams used in the furniture industry only is estimated at about 1.3 million tonnes per year (including Turkey). Polish market is estimated at 185 thousand tonnes per year.

In general, demand for flexible foams depends on the situation in the industries that are the biggest consumers of the product i.e. furniture and automotive industries. In the case of the Polish furniture industry, very good economic situation has been recorded since 2013, and the last year was another year of high output growth, exceeding ten per cent (according to the Central Statistical Office data). Economic results and the financial position of the furniture industry (oriented mainly at export) depend greatly on the economic situation on foreign markets and on exchange rates of the Polish currency. High price competitiveness of the national furniture industry supports its good position on foreign markets.

The furniture industry, which is one of the key recipients of foams produced by the CIECH Group, remains characterised by very good economic situation.

### 2.2.3 SILICATES AND GLASS SEGMENT

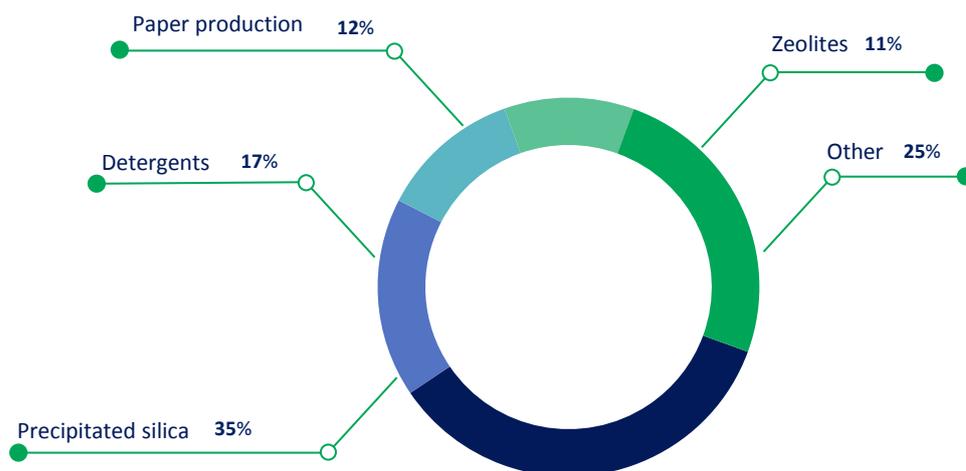
#### Sodium silicates (glassy sodium silicate and sodium water glass)

Sodium silicates are manufactured in solid form (glassy sodium silicate) and in liquid form (sodium water glass usually obtained by dissolving glassy sodium silicate in water). The CIECH Group, through CIECH Vitrosilicon S.A. and CIECH Soda Romania S.A., manufactures and sells glassy sodium silicate as well as sodium water glass.

Sodium silicates are used for production of precipitated silica (about 35% of consumption in Europe, used mainly in the tyre and beauty product industries), detergents (more than 15%), paper, zeolites and in other industries.

In developing countries, applications related to production of detergents dominates, and the total consumption of these silica is proportional to the number of citizens.

FIGURE 29: APPLICATION SEGMENTS OF SODIUM SILICATES IN EUROPE



Source: Own compilation based on the IHS data

Sodium silicates are one of the most popular non-organic chemicals, and are manufactured all over the world. However, due to their relatively low price and high importance of the liquid form in trade (silicates dissolved in water), international turnovers are performed usually on a local level, i.e. only on the European continent.

The largest production capacities are located in China (about 40%). The most developed regions of the world (Europe, North America, Japan) are responsible for approx. 40% of global production capacities in total.

FIGURE 30: GEOGRAPHIC STRUCTURE OF PRODUCTION CAPACITIES OF SODIUM SILICATES



Source: Own compilation based on the IHS data.

Sodium silicate production capacities in Europe are estimated at more than 2 million tonnes per year (expressed in glassy sodium silicate). However, majority of these capacities is used by producers, who in general do not offer silicates on the free market. European production capacities are located in Western and Central Europe. PQ and BASF concerns as well as Polish entities, the CIECH Group and ZCh Rudniki, are leaders of the European market. The Group's share in total production capacities in Europe is estimated at more than 10% for glassy sodium silicate (third largest producer) and approx 5% for sodium water glass (fifth largest producer).

The total demand for sodium silicates in Europe is estimated at more than 1.7 million tonnes per year (expressed in glassy sodium silicate), and its annual average growth dynamics is 1%–2%. A relatively low growth dynamics is due to maturity of the European market. Production of precipitated silica is a segment with a relatively high growth dynamics (annual average of 3%–4%).

In Poland, sodium silicates are traded both in liquid form (sodium water glass) and solid form (glassy sodium silicate). The CIECH Group assessed its share in the domestic market of these chemicals in 2016 at the average level of 50%.

### **Glass products (decorative lanterns, jars)**

Glass products manufactured by CIECH Vitrosilicon are intended for niche markets: decorative lanterns are used to manufacture vigil lights; jars with clamp lids and twist-off jars are to be used for food products.

#### **Decorative lanterns**

Vigil lights are the products used mainly in Poland and in some Central European countries. Consequently, activity of the CIECH Group in this respect is focused on the domestic market. The demand for vigil lights is related to the tradition of visiting cemeteries, and sales are performed mainly around 1 November every year. Supplies of lanterns used in the production of vigil lights are delivered earlier, mainly in the second quarter of a year.

In Poland, there are only few producers of decorative lanterns (glass-works). At the same time, complete vigil lights are manufactured by about 300 companies that usually buy lanterns directly from producers. Major producers of decorative lanterns are: CIECH Vitrosilicon S.A. in Iłowa, HS Sława S.P. in Kielce and Stolzle Wymiarki Sp. z o.o. in Wymiarki.

The domestic market of decorative lanterns is estimated at about 230 million pieces per year. The CIECH Group, through CIECH Vitrosilicon S.A. with a share of about 45%, has been without any doubt a leader of this market since many years. Key advantages of the leader include: production potential and a wide and differentiated product range.

Plastic products are also sold on the market of vigil lights. However, these substitutes have a low share in the total demand (of about 10%) due to their low aesthetic characteristics.

In general, the market of decorative lanterns is a relatively stable and mature market, with limited or marginal growth dynamics.

#### **Jars**

Jars offered by the CIECH Group are addressed to the food processing industry (fruit and vegetable, meat, fish, production of mustard, mayonnaise and honey) as well as to trading companies.

CIECH Vitrosilicon S.A. specialises in the manufacture of DZK type jars with glass lids and fastening clasps, used on niche markets (for storage of bulk products and products that do not require pasteurisation). The CIECH Group is the only producer of such jars, and a majority of sales is targeted at the domestic market. Competitive products on the Polish market are imported from Germany, China and Italy. The domestic market of DZK jars is estimated by the CIECH Group at about 2.7 million pieces per year. The Group with a share of about ¼ is the third supplier on this market.



**CIECH GROUP'S STRATEGY**  
AND DEVELOPMENT CONDITIONS

## 3

## CIECH GROUP'S STRATEGY AND DEVELOPMENT CONDITIONS

## 3.1 STRATEGY OF THE CIECH GROUP for 2014–2019

The Strategy of the CIECH Group for 2014-2019, presented by the Management Board of the Company, was approved by resolution of the Supervisory Board dated 3 November 2014. According to the adopted document, the strategic objective is the maximisation of the value of the CIECH Group, mainly through the development in the soda and organic segments.

FIGURE 31: STRATEGY OF THE CIECH GROUP FOR 2014-2019



For the purpose of calculating the net debt to EBITDA ratio, the estimated average annual dividend yield was determined at 3%. The value of the dividend and its distribution will depend on the market situation and the financial position of the CIECH Group.

Objectives set in the CIECH Group's strategy implemented through:

TABLE 2: IMPLEMENTATION OF STRATEGIC OBJECTIVES

 Soda segment	Strengthening of the leader's position in the soda segment in the key European markets through, among other things: <ul style="list-style-type: none"> <li>• effective acquisition of new clients</li> <li>• further improvement of the quality of products</li> <li>• strengthening of the position of preferred supplier</li> <li>• development of more processed types of baking soda.</li> </ul>
 Organic segment	Consistent strengthening of the market position in the organic segment through, among other things: <ul style="list-style-type: none"> <li>• an increase of the production effectiveness</li> <li>• an increase in the use of the production capacity (plastic and plant protection products).</li> </ul>
 Silicates and Glass segment	High quality and production cost effectiveness within the silicates and glass segment in the long term through, among other things: <ul style="list-style-type: none"> <li>• completion of investments in the reconstruction and improvement of the production capacity</li> <li>• completion of investments in the improvement of the production capacity.</li> </ul>



Optimisation and development

- Optimisation of the product portfolio
- Development of highly processed products to meet the customer requirements (plastic)
- geographical expansion (plant protection products), with the support of CIECH R&D Sp. z o.o., a company which is the Group's R&D centre
- Active steps taken for the purpose of identification and implementation of new development initiatives focusing on the building of the CIECH Group's value.

The Management Board of CIECH S.A. carries out an on-going analysis of the market environment and identifies innovative solutions aimed at the building of the CIECH Group's goodwill. It is possible to update the Strategy in the event of changes in the conditions of operation of the CIECH Group.

### 3.2 STRATEGIC ACTIVITIES IN 2016

The CIECH Group has been continuously performing its strategic activities which impact the achievement of the financial objectives and the maximisation of the Group's goodwill.

In terms of the main segments of activities and other objectives set by the Group, it is necessary to mention the following activities carried out in 2016:

TABLE 3: ACTIVITIES OF THE CIECH GROUP IN 2016

	<p>Soda segment</p>	<ul style="list-style-type: none"> <li>• Completion of the Soda +200 project, i.e. the extension of the production capacity of the soda plant in Inowrocław, from 600 to 800 thousand tonnes per year. In the 1<sup>st</sup> quarter of 2016, the second stage of this investment project was completed which increased the plant's capacity by additional 140 thousand tonnes. In 2015, the first stage of this investment project was completed, as a result of which the plant's production capacity increased by 60 thousand tonnes.</li> <li>• Further extension of portfolio aimed at specialised products in the area of salt and baking soda.</li> <li>• Continuation of optimisation activities, increasing the efficiency of production processes.</li> <li>• Strengthening the Group's position on new and existing geographical markets.</li> </ul>
	<p>Organic segment</p>	<ul style="list-style-type: none"> <li>• CIECH Sarzyna S.A. is undergoing intensive changes. In the AGRO area, one of their element was intensification in the process of registration of new products, construction of new distribution channels, significant strengthening of the sales force, and advertising campaigns for the flagship products (e.g. Chwastox and Agrosar).</li> <li>• Implementation of a large investment programme aimed at extending the product portfolio of CIECH Sarzyna S.A. on the domestic plant protection product (PPC) market. This programme includes increasing the level of product registrations and ensuring direct access to key substances.</li> <li>• Development of the "hobby" line which will allow for reaching new users.</li> <li>• Analysis of the market in terms of possible takeovers in the organic segment.</li> </ul>
	<p>Silicates and Glass segment</p>	<ul style="list-style-type: none"> <li>• Completion of the investment in the increase of production capacity of glassy sodium silicate at CIECH Vitrosilicon S.A. – replacement of a glass furnace, extension of the batch plant, extension of the raw material warehouse and finished product storage site.</li> </ul>
	<p>Optimisation and development</p>	<ul style="list-style-type: none"> <li>• Continued development of the R&amp;D area to support the development of products being a response to growing needs of the market. The CIECH Group also implements a number of R&amp;D projects aimed at improving the efficiency of plants.</li> </ul>

### 3.3 DEVELOPMENT PROSPECTS

The prospects for CIECH S.A. and the CIECH Group's development result both from its market position and position in the chemical industry as well as the present and the forecast conditions of environment of the Group in Poland and worldwide. Key development prospects of CIECH S.A. and the CIECH Group in individual segments of its operations are discussed below. More information about market factors affecting CIECH S.A. and the CIECH Group's operations is provided in Chapter II of this report: External environment.

The most important economic factors in the environment of CIECH S.A. and the CIECH Group include:

- Market conditions – including conditions on the raw material market and currency situation
- Situation on consumer markets of the CIECH Group – including the glass packaging sector, furniture sector, automotive sector, plastics sector, chemicals and chemical products sector, agricultural sector and construction sector
- Level of economic activities in Europe – growth rate of the EU industrial production, domestic demand
- EU banking system situation (affecting the credit activity of banks)
- Global economy situation, in particular, the direction of the Chinese economy GDP's changes being difficult to foresee
- Legal and regulatory environment

TABLE 4: DEVELOPMENT PROSPECTS OF THE CIECH GROUP AND CIECH S.A. IN INDIVIDUAL BUSINESS SEGMENTS

<b>Soda segment</b>	
Soda ash	
Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Moderate increase in global demand</li> <li>• Recycling of packaging glass (decreasing demand for soda in the production of glass containers)</li> <li>• Decreasing demand for washing powder in favour of liquid detergents (resulting in a decrease in the consumption of soda in the detergent industry)</li> <li>• Perspective of oversupply of soda and drop in prices in the European region in the years 2017-2019 in the face of the planned launch of new generation capacity in Turkey</li> <li>• Extension of soda production capacity based on natural trona deposits (lower production costs compared to the dominant synthetic technology applied in Europe and in the CIECH Group)</li> <li>• Progressive global consolidation in the soda segment</li> <li>• Growing demands for the energy efficiency of buildings that can be satisfied through, among others, increased use of flat glass (double or triple glazing of windows).</li> </ul>	<ul style="list-style-type: none"> <li>• Completion of the Soda +200 project and increase in sales of soda volumes</li> <li>• Strengthening the position of a vice-leader on the European market</li> <li>• Increase in market share in the Indian subcontinent, improving presence in the rapidly growing overseas markets</li> <li>• Building strong, long-term relationships with key customers, diversification of customer portfolio</li> <li>• Expansion of the distribution network, increasing the share of sales to end customers.</li> </ul>



Baking soda

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Global megatrends supporting the increasing demand for baking soda:                             <ul style="list-style-type: none"> <li>✓ Increased availability of treatment through hemodialysis and the resulting increase in demand for soda used for this purpose</li> <li>✓ Improving health care in developing countries – increased consumption of soda used in the pharmaceutical industry</li> <li>✓ Growing regulatory requirements in the area of environmental protection – a major increase in usage of baking soda for fumes desulphurisation is expected</li> <li>✓ Global population growth (mainly Asia and Africa) accelerating the rate of food consumption – increased consumption of soda used in the food industry</li> <li>✓ Discontinuation of the quota system for milk production in the EU (since 2015) resulting in an increase in milk production and potentially increased consumption of soda in fodder</li> </ul> </li> <li>• Perspective of oversupply of soda and drop in prices of mainstream types (apart from dialysis soda) in the European region in the years 2017-2019 in the face of the planned launch of new generation capacity in Turkey</li> <li>• Progressive global consolidation in the soda segment.</li> </ul>	<ul style="list-style-type: none"> <li>• Concentration of operations in key markets</li> <li>• Expansion of the portfolio towards more processed products, specialised products and products that fit in with the trends related to environmental protection and demographic changes</li> <li>• Implementation of sales strategy focused on the supply of higher grades of baking soda to customers in the pharmaceutical sector</li> <li>• Intensification of sales of the “SORBECO” sorbent used in the desulphurisation of flue gas.</li> </ul>

Evaporated salt

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Moderate increase in European and global demand for salt</li> <li>• Decreasing importance of rock salt with increasing importance of evaporated salt in the European industry</li> <li>• Apparent increase in demand for specialist products of the salt industry – salt tablets, salt of pharmacological purity grade used in the pharmaceutical sector, salt for the food industry and for direct consumption (e.g. with low sodium content)</li> <li>• Growing market of salt for fodder and salt licks – development of agriculture in the country</li> <li>• Growing awareness of the need to improve water quality – an increase in demand for salt tablets from the industry, hospitals and similar institutions and households</li> </ul>	<ul style="list-style-type: none"> <li>• Owing to the implementation of the investment project aimed at intensification of dry salt production in Janikowo in 2015, the Group is able to produce a majority of volumes in the form of dry salt</li> <li>• Expansion of the offer in the direction of specialty products within the dry salt portfolio – new directions of sales and marketing of existing products</li> <li>• Construction of a broad portfolio of products and utilisation of sales synergies with dynamically developed AGRO area</li> </ul>

**Organic segment****Plant protection chemicals**

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Good growth prospects in emerging markets (particularly in Latin America and Asia)</li> <li>• Expected further systematic growth (over the next few years) of the Polish market of plant protection products, where the unit consumption of products per 1 ha is still much lower than in Western European countries</li> <li>• Prospects of further improvement of economic situation of Polish farmers owing to direct subsidies received from the European Union</li> <li>• Progressing consolidation of major players in the market (a few large transactions in 2015 and 2016 among the largest companies)</li> <li>• Controversies concerning genetically modified plants (GMO) which should effectively influence the higher demand level for traditional plant protection chemicals</li> <li>• Decreasing arable land area on the global scale and increasing population – necessity of constant yield increase</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthening the position on the Polish market</li> <li>• Extension of the product portfolio, continuous improvement of the product range, which is the responsibility of CIECH R&amp;D Sp. z o.o.</li> <li>• Development of new distribution channels, strengthening sales forces, focusing on the most effective directions of foreign expansion</li> <li>• Development in the Home &amp; Garden area (the ZIEMOVIT brand) covering products used in the cultivation of allotment plots, gardens and balcony plants.</li> </ul>

**Resins**

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• The main consumption growth factor of epoxy resins – demand for glues and composites for aviation (in North America and Europe) and powder paints (in the Far East and South-East Asia region)</li> <li>• Rapid growth of demand is expected in the wind farm segment – depending mainly on support for development of renewable energy sources by the European governments</li> <li>• Raw material integration of large resin producers.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of the programme for optimisation of the current product portfolio and selective development of new, high-margin products.</li> </ul>

**Foams**

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Direct dependence of demand for flexible polyurethane foams on the situation in industries that are the biggest consumers of the product i.e. furniture and automotive industries.</li> <li>• Very good situation in the domestic furniture industry – high position of Polish industry in international markets.</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing the efficiency of processes and logistics in the plant – implementation of a long block warehouse construction project</li> <li>• Extension of the product portfolio</li> <li>• Further increase in production efficiency, e.g. through the utilisation of waste (foam used in panels).</li> </ul>

## Silicates and Glass Segment

Glass products, silicates, water glass	
Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>Moderate long-term increase in global demand for sodium silicates</li> <li>Growing global demand for the so-called green tires produced using precipitated silica manufactured from sodium silicates</li> <li>Growing demand for liquid detergents (resulting in an increase in the consumption of sodium silicates)</li> <li>Regular increase in the share of cullet in raw materials used by glassworks producing packaging glass in the EU (reducing production costs and adverse environmental effects)</li> <li>Increased utilisation of capacities of existing European glassworks (closure of a part of installations in previous years, lack of significant investments in new capacities with a slight increase in demand).</li> </ul>	<ul style="list-style-type: none"> <li>Extension of sodium silicate production capacities – replacement of a glass furnace which allowed for doubling the production potential while reducing production costs</li> <li>Focusing on the use of new applications of silicates and development of high-margin products.</li> <li>New product lines – new designs of decorative lanterns for vigil lights.</li> </ul>

## 3.4 RISKS TO OPERATIONS

### Risk management at the CIECH Group

The CIECH Group continues to develop the risk management system which constitutes a significant element in supporting its operations. This process aims at reducing risks that may arise and introducing mechanisms to recognise, identify and properly manage various external risks affecting the future growth of the CIECH Group, so that this risk would be neutral to the implementation of strategic objectives.

The Risk Management System of the CIECH Group is an organised set of general principles and guidelines, defining how the risks to which the CIECH Group is exposed should be managed. The system determines the responsibility for the implementation of these principles in the CIECH Group. The objective of the system is to lay a foundation for introducing risk management methods, procedures, requirements and reports required for keeping the CIECH Chemical Group's risk at an acceptable level.

Risk management in the CIECH Group is an instrument that supports the Management Board and Supervisory Board of CIECH S.A. in monitoring the effectiveness of internal control system, audit system and risk management system. Risk management objectives in the CIECH Group are implemented through:

- Systematic approach to the identification of all risks
- Supporting the allocation of resources by setting priorities for risks
- Selection and implementation of the best risk management strategy
- Risk monitoring, analysis and reporting that take into account all potential effects of existing risks.

TABLE 5: LIST OF THE MOST SIGNIFICANT RISKS RELATED TO THE FUNCTIONING OF THE GROUP

### Operational risks

#### Risk related to the availability of raw materials

The supply relies on a limited number of suppliers for certain raw materials, which may cause supply disruptions and delays or additional costs if suppliers fail to deliver their products in a timely manner or fail to meet quality require-

## Operational risks

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ments.

The production process of the Group companies requires adequate and timely supplies of raw materials. For certain required raw materials, there is a limited number of possible suppliers. Most of the limestone and brine – two main raw materials used in the production of soda with the Solvay method – is purchased locally by soda producers from single suppliers. The soda ash production plants need to be located in close proximity to limestone and brine suppliers due to very high transportation costs of these raw materials in comparison with their price. The majority of key raw materials for production plant in Romania is obtained from individual suppliers. Furthermore, some production plants, in particular those manufacturing soda ash, are located in areas with a limited number of suppliers in the profitable radius.

In addition, certain raw materials, such as limestone, brine or energy, are purchased under long-term contracts. Key terms of the supply contracts, such as price and quality, are generally flexible and can be modified under certain circumstances to better reflect current business conditions. There is no guarantee that this flexibility will be sufficient to adapt the contracts to current business conditions in a way acceptable for the Group, which could have negative impact on the CIECH Group's operating activity and financial situation.

**The risk is estimated to be moderate**

### Risk mitigation methods

In order to reduce this risk, the CIECH Group constantly seeks alternative ways to purchase raw materials and improve its negotiating position towards suppliers as a large and reliable recipient of raw materials. In the case of coal, the Group seeks to enter into long-term contracts, as a way to mitigate this risk. For coke, the Group tries to replace this raw material with anthracite.

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### Risk of breakdowns and unplanned stoppages

Production activities of the CIECH Group companies can be interrupted as a consequence of risk factors, which are beyond the Group's control, such as environmental threats, some disasters, including fires, weather events, serious breakdowns of equipment and other accidents or events that may result in cessation of the operations. Any damages to facilities, including IT systems, causing short-term interruptions in operations of facilities and distribution and logistics services, for the time of repair or for other reasons, may have considerable, unfavorable impact on the CIECH Group's operating activities and financial situation.

**The risk is estimated to be moderate**

### Risk mitigation methods

The Group has an active security system at all organisational levels and in technological processes. Group companies constantly analyse the status of key equipment and maintenance schedules for this equipment in order to eliminate the potential risks of breakdown. The CIECH Group improves its technological processes on an ongoing basis and invests in modern technologies.

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### Risk of failure to retain or attract staff to the CIECH Group

Loss of important management, technical and administrative personnel, or the failure to recruit such personnel, may affect the CIECH Group's operations.

The nature of the CIECH Group's operations and its development plans require hiring personnel with high qualifications in various domains. Ability to maintain a competitive position and implementation of business strategy depends significantly on the quality and the experience of staff. The loss of competences important for the CIECH Group or impossibility to acquire them may have a considerable, negative effect on operating activities, which translate into financial situation.

**The risk is estimated to be moderate**

### Risk mitigation methods

Due to the relatively high costs of acquiring personnel with desired competences and skills, the search for employees having appropriate experience constitutes an element of an ongoing policy of the CIECH Group. A component of the strategy for managing this risk is continuous improvement of management, technical and administrative personnel through the improvement of working conditions and salaries, introduction of development and incentive programmes, as well as trainings improving the personnel's expertise.

A vital element of personnel policy of the company is to build the image of the CIECH Group as an attractive employer

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### Operational risks

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for young, educated and ambitious people. Therefore, the Group cooperates with selected universities and conducts, every year, apprenticeships and traineeships projects in the companies of the Group.

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#### Risk of personnel disputes

The CIECH Group employs 3,855 persons, 70% of whom belongs to trade unions. Therefore, the risk of personnel disputes or long-term negotiations, conducted with the employer by trade union organisations to influence the employer, cannot be ruled out.

**The risk is estimated to be low**

#### Risk mitigation methods

The Group companies introduced uniform employee remuneration principles which replaced collective agreements applicable before 2012. In addition, the Group's companies applied uniform bonus rules, according to which the additional benefits depend on the Group's results and the level of achievement of the operating targets assumed by the Group.

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### Business risks

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#### Economic risk

The CIECH Group business is largely based on the sales of chemical products used as raw materials and semi-finished goods in a wide range of industries, including the glass, detergent, furniture, automotive, construction, food, pharmaceutical, chemical and consumer goods industries. The demand for the CIECH Group customers' products is affected by general economic conditions and other factors, including conditions in the construction, automotive and packaging industries, the costs of labour and the energy costs, the exchange rates fluctuations, the interest rate fluctuations, and other factors beyond control of the Group.

The CIECH Group turnover is primarily attributable to the sales of soda and organic products, where the prices are cyclical and sensitive to changes in the supply and demand, the availability and price of raw materials, the general economic conditions, and other factors that are beyond control of the CIECH Group. These industries are characterised by periods of increased demand, leading to high operating profits and margins, followed by periods of oversupply resulting primarily from significant production capacity increases or a decreased demand, leading, in turn, to reduced profits and margins.

The markets for other products of the CIECH Group, including epoxy resins used mainly in the construction and paint industry, are affected by cyclicity, experiencing alternating periods of high demand, causing prices and margins to increase, followed by periods of low demand, resulting in oversupply and declining prices and margins. The demand for epoxy resins is closely linked to the demand for end-use products of paint, construction and electronic industries, which, in turn, depends on the overall economic situation. The cyclicity may affect the prices of the CIECH Group's products and may negatively impact the CIECH Group's operating activity and financial standing.

It is uncertain whether events that have an adverse effect on the industries and markets in which the CIECH Group operates, such as a downturn in the Polish, European and global economies, increases in interest rates, unfavourable exchange rate fluctuations, or other factors, will not occur. Any significant downturn in the CIECH Group customers' activities or in the Polish, European and global economic conditions could result in a reduction in the demand for the CIECH Group products and could negatively affect the operating activity and the financial standing of the CIECH Group.

**The risk is estimated to be moderate**

#### Risk mitigation methods

The CIECH Group minimises this risk by monitoring the economic situation throughout the world, in Europe and Poland, as well significant events, and also by taking actions reducing the negative impact of materialisation of this risk.

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#### Risk of changes in market prices of raw materials

The CIECH Group's operations may be negatively affected by changes of raw material and fuel costs, inability to retain or replace key suppliers, unexpected supply shortages or supply chain disruptions. The CIECH Group's profit is largely de-

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## Business risks

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pendent on attainable sales prices of raw materials and energy required for manufacturing of different products.

The prices of many raw materials, constituting a significant portion of operating costs, can be variable. The availability and prices of these raw materials are influenced by factors that mostly are beyond the CIECH Group's control, such as market conditions, general global economic prospects, production constraints by the suppliers, fluctuations of oil or other commodity prices, infrastructure failures, political conditions, weather conditions, legal regulations and other.

Starting from the fourth quarter of 2016, the price of coal, used in the production of electricity and steam in the CIECH Soda Polska S.A.'s production facilities in Janikowo and Inowroclaw, is increasing. At the same time, market prices of coke have also been increasing, what makes the purchase price of this raw material for production plants in Poland, Romania and Germany higher. It cannot be ruled out that the increase in prices on the coal, coke and anthracite market will not be stopped in 2017.

**The risk is estimated to be moderate**

### Risk mitigation methods

The CIECH Group actively manages the process of rising raw material prices by, among other measures, using alternative specifications of raw materials, searching for new sources of supply as well as by replacing more expensive raw materials with raw materials that are relatively less expensive, optimising its production processes on an on-going basis. Owing to these actions, the Group is able to minimise the impact of the increase in prices of strategic raw materials on the performance of this production segment of the CIECH Group.

The CIECH Group minimises the risks described above by monitoring the situation on the market, negotiating conditions for subsequent periods with its current suppliers and signing long-term contracts, as well as by looking for optional suppliers.

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### Risk of oversupply and decrease in prices of soda resulting from the launching of new production capacities and other activities of competitors

The growing competition from existing and new domestic and foreign producers may occur on the main markets and in industries in which the Group operates. The competition within the chemical industry depends on local market dynamics and varies significantly depending on specific product and its use. In addition, the competition in the chemical segment depends on many factors, including but not limited to: demand, product prices, reliability of supply, relevant production capacity, customer service quality, product quality, and availability of substitutes. It is not certain that the CIECH Group will be able to compete effectively against the current and future competitors. The increased competition or the entrance of new competitors to the market could have a negative effect on the operating activities and the financial standing of the CIECH Group.

This applies mainly to soda ash and to the expansion of capacities in the Middle East, and particularly, to the competition from manufacturers of soda based on natural raw materials – trona. The CINER Group publicly informs that it is constructing in Turkey additional production facilities based on trona (of the total capacity of 3.3 million tonnes of soda ash and baking soda annually), whose gradual start-up is planned for 2017 and 2018.

The availability of significant new production capacities may result in a temporary oversupply of the product, increased competition and a decrease in average prices in Europe and in the neighbouring regions, which may have a detrimental effect on the Group's results of operations starting from 2017. This trend may continue for the next two years.

**The risk is estimated to be high**

### Risk mitigation methods

From the time of publishing the information about the Turkish investment, the CIECH Group has been taking active steps to develop the soda segment by strengthening its production capacity, expanding sales to new markets, developing new soda-based products, improving the quality of all products, strengthening its customer relations, and improving the efficiency of production processes. The Group puts considerable emphasis on the development of specialist products in the soda area, such as baking soda used in the pharmaceutical industry, or soda used in the desulphurisation of flue gas.

These actions should allow the CIECH Group to compete against other soda manufacturers in Europe in an effective manner. In addition, a significant reduction of the scale of capacity extension in China, the largest soda industry in the world, is a factor that should positively affect the global balance of supply and demand.

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## Business risks

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### Risk of strong price competition from large corporations and Far East producers in the area of plant protection products

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Large corporations are the leaders in the area of plant protection chemicals. Due to the progressing consolidation of competitors and distributors, these entities can benefit from economies of the scale and offer their products at lower prices than the CIECH Group. At the same time, these companies may offer their products on multiple markets, based on the registrations held. In addition, the competitiveness in this area is affected by regulatory changes, i.e. registration processes or prohibitions on the use of certain substances in a specific area.

The competitiveness of activities in the area of plant protection products is also negatively affected by weather conditions. Bad weather conditions can cause smaller harvest and, thereby, lower demand for the CIECH Group products. Weather conditions may have a delayed effect on operating results, as the CIECH Group sells products to distributors who, having excessive stocks after bad vegetation period, will be interested in a lower number of orders for the following period.

**The risk is estimated to be moderate**

#### Risk mitigation methods

The CIECH Group conducts ongoing development activities in the area of plant protection products through the registration of new products, strategic alliances with other companies, as well as entering new geographical markets and introducing new product categories.

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## Financial risks

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### Tax risk

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The CIECH Group companies tax burdens may increase as a result of current and future tax inspections and potential changes in binding tax regulations.

For the purposes of calculation of income tax liabilities and all other tax liabilities, the CIECH Group companies follow their assessment of situation and make decisions to the best of their knowledge. Despite the belief that the tax estimates are reasonable, many factors may decrease their accuracy. Furthermore, the Polish tax system is known for its instability. Changes in regulations, often to the disadvantage of taxpayers, are introduced quickly and often in an unpredictable manner. The instability of the Polish tax system results not only from changes in the law, but also from its reliance on tax regulations interpretations issued by the treasury authorities and on judicial decisions. Issued interpretations and judicial decisions are not coherent and may be subject to potential corrections or changes. Another element influencing the lack of stability of the tax law is the necessity to implement changes resulting from adjusting the national legislation to the new European Union regulations.

The CIECH Group companies are and may be subject to tax authorities inspections, during which these authorities may disagree with the approach regarding tax treatment of certain significant items adopted by the companies, including past and future events, and therefore they may oblige companies to re-calculate and potentially increase their tax liability and pay interests on tax arrears.

Frequent changes in tax regulations had and may have future negative impact on activities of the CIECH Group companies, their financial situation, operating results and development possibilities. What is more, the lack of stability in the Polish tax regulations may hinder the ability for effective future planning and implementation of the business plan according to the assumptions. In addition, changes in the existing law can also increase the real tax rate, and the increased tax expense may have a significant, negative impact on the further development of the Group.

**The risk is estimated to be moderate**

#### Risk mitigation methods

The Group constantly monitors changes in the law and potential tax risks, taking steps to eliminate them or to reduce them substantially through a constant cooperation with reputable tax advisors and by official inquiries to the tax authorities.

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## Financial risks

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### Foreign exchange risk

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Due to the nature of conducted import and export operations, the CIECH Group is subject to currency exposure related to the significant lead of export over import. Sources of currency risk which threatens companies within the Group include: product sale, purchase of raw materials, loans raised and cash in foreign currencies. Unfavourable changes in currency exchange rates may worsen the Group's financial results. Fluctuations in the foreign exchange rates may also significantly affect the comparability of the Group's results between the periods.

The CIECH Group's main source of exposure to foreign currency risk is related to EUR and USD. The estimated exposure to the currency exchange risk in EUR (excluding SDC Group) amounted to EUR -225.7 million, EUR -273.2 million and EUR -301.4 million, as at 31 December 2014, 31 December 2015 and 31 December 2016 respectively.

**The risk is estimated to be moderate**

#### Risk mitigation methods

The CIECH Group aims to naturally hedge its foreign currency exposure, including matching cash flows in given currencies resulting from sales and purchases and denomination of debts in certain currencies, in order to adjust it to the expected exposure to foreign currency risk in operating activities. Moreover, the Group hedges a portion of its foreign currency exposure using derivative instruments. The Group has introduced a uniform market risk management strategy, covering, among other aspects, the currency risk management.

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### Risk of insufficient insurance coverage

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The CIECH Group companies have insurance policies, concluded with international and local insurers, providing protection (with some restrictions with regard to the subject and substantive scope) against selected operational risks, including

- property insurance
- loss of profits insurance
- business liability insurance
- product liability insurance
- insurance of goods in transport
- railway rolling stock and vehicles insurance
- civil liability of company's officers and directors insurance
- receivables insurance.

The types and amounts of insurance currently held by the CIECH Group companies are in compliance with customary practices in the chemical sector and are adequate to the type of their activities. The insurance held does not cover all potential risks related to scope of activities or other threats, for which the Group might be responsible. The policies are subject to standard deductions, exclusions and limitations, which can affect the possibility to notify claims.

**The risk is estimated to be low**

#### Risk mitigation methods

The Group cooperates with insurance brokers to assess whether the scope of insurance cover is appropriate to the Group's operations. The Group companies are subject to regular audits carried out with the insurers, aimed at updating the risk assessment.

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### Risk associated with debt financing

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The Group finances its activities, to a large extent, with interest-bearing debt, i.e. with loans, finance leases and bonds. As at 31 December 2016, the debt amounted to approx. PLN 1,530 million.

The CIECH Group's ability to service the debt in a timely manner depends, among other factors, on future operating activities and the ability to generate sufficiently high cash flows. In the absence of sufficient funds to service the debt, the Group may be forced to limit or postpone business activities and capital expenditures, sell assets, contract additional debt or equity financing and restructure or refinance all or part of the debt.

Debt financing conditions contain obliging clauses and covenants. Where these clauses or covenants are violated and the

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## Financial risks

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effects of such violations are not remedied, the Group may be required to immediately repay the debt or a portion thereof. Restrictions contained in financing agreements may also limit the Group's ability to finance future operations and own cash requirements, to implement business undertakings.

Despite the above restrictions, CIECH S.A. and Group companies are able to contract significant amounts of additional debt. Increasing the value of debt may significantly increase the risk associated with the use of financial leverage.

**The risk is estimated to be moderate**

### Risk mitigation methods

As part of the financial planning processes, the CIECH Group analyses and monitors, on a regular basis, the cash flows generated and its ability to maintain liquidity and service its debt.

The CIECH group aims at unifying the debt financing conditions, including the covenants applicable, to limit the risk of infringing these covenants. The observance of provisions of financing agreements and compliance with financial ratios set out therein is monitored on a regular basis. Debt financing is obtained in a controlled and coordinated manner at the Group level. The Group has implemented uniform rules for obtaining external financing in order to take into account the consolidated need for financing of the entire CIECH Group, take advantage of the economies of the scale, reduce financing costs and apply consistent limiting conditions.

The Group's financing sources are diversified in terms of creditors and maturities. When entering into agreements, in order to reduce the risk of infringement and ensure the highest possible flexibility of operating conditions, the Group aims at negotiating the most favorable provisions concerning conditions that limit the financing.

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### Risk of inability to service the current debt and maintain liquidity

The ability of the CIECH Group to make scheduled payments to repay the Group's debt as well as to finance working capital and capital expenditures depends on the future operating activities and the ability to generate sufficient amounts of cash. If the CIECH Group's future cash flows from operating activities and other capital resources prove insufficient to repay liabilities timely or to satisfy liquidity related requirements, the Group may be forced to:

- limit or postpone business operations and capital expenditures
- sell its assets
- obtain additional debt or equity financing
- reorganize or refinance all or part of the debt on or before maturity.

**The risk is estimated to be moderate**

### Risk mitigation methods

As part of the financial planning processes, the Group analyses and monitors the cash flows generated and its ability to maintain liquidity and service its debt. The Group's debt financing sources are diversified in terms of creditors and maturities.

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### Risk of increase in the debt level

The CIECH Group companies are able to contract significant amounts of additional debt. Increasing the value of debt may significantly increase the risk associated with the use of financial leverage.

**The risk is estimated to be moderate**

### Risk mitigation methods

As part of the financial planning processes, the Group analyses and monitors the financial results, cash flows, rates of return on investments and ability to service new debt. The Group's debt financing sources are diversified in terms of creditors and maturities.

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### Risk of limited flexibility of operations due to restrictions resulting from financing agreements

The CIECH Group is subject to restrictive financing agreement conditions, which can limit its ability to finance future operations and own cash requirements, to implement business projects.

The term loan and revolving credit facility agreement limits, among others, the ability of the CIECH Group companies to:

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## Financial risks

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- contract or guarantee additional debts and issue some preference shares
  - establish certain pledges or incur liabilities secured by a pledge
  - make certain payments, including dividends or other profit distribution forms
  - encumber or restrict the payment of dividends or other forms of profit distribution, loans or advances and payments for the transfer of assets to such entity
  - sell, lease or transfer certain assets
  - consolidation or mergers with other entities
  - breach of security created to the benefit of the creditors.

As a result of non-compliance with financing agreements, the creditors may terminate the financing and call in all outstanding amounts.

**The risk is estimated to be moderate**

### Risk mitigation methods

The observance of provisions of financing agreements and compliance with financial ratios set out therein is monitored by the Group. The Group aims at diversifying the financing sources and ensuring the most favorable provisions concerning conditions that limit the financing.

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## Credit risk

The CIECH Group is exposed to credit risk of its business partners connected with the credit rating of customers being parties to sales transactions of products and goods. The Group is also exposed to credit risk of financial institutions connected with cash placed on bank accounts and deposits as well as transactions with financial institutions.

**The risk is estimated to be low**

### Risk mitigation methods

The credit risk of the business partners is mitigated by using internal procedures to establish amounts of credit limits for customers and to manage trade receivables (the Group uses securities such as letters of credit, bank guarantees, mortgages, receivables insurance and non-recourse factoring). An important part of the credit activity is assessing the customers' creditworthiness and obtaining appropriate collateral from them, thus allowing for a reduction of potential losses in the case of failure to repay the debt. Credit risk assessment for customers is performed prior to concluding an agreement and periodically at subsequent deliveries of goods in accordance with the binding procedures.

In order to limit the credit risk of financial institutions the CIECH Group enters into transactions with high-rating banks with stable market position.

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## Interest rate risk

The costs of the Group's debt depend on the reference rate. This refers to loans, bonds, factoring and some lease contracts. There is a risk of an increase of the reference rate, which may lead to increased financial costs and deterioration of the CIECH Group's financial result.

**The risk is estimated to be low**

### Risk mitigation methods

The interest rate risk is reduced by the assets owned by the CIECH Group (bank deposits), interest bearing in accordance with variable interest rate, and by concluding hedging transactions such as currency interest rate swaps or interest rate swaps.

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## Legal and regulatory risks

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### Risk related to the tightening of regulations concerning the use of the natural environment

Dynamic legal changes in the area of the environmental protection significantly impact the CIECH Group's activities.

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### Legal and regulatory risks

The CIECH Group is a subject to very strict regulations, which may generate significant costs regarding compliance with the obligations resulting from the environmental protection regulations applicable to the CIECH Group's activities.

CIECH Group's companies operate under the current permits regulating the manner and extent of use of the environment, comply with standards defined by law, in particular in the area of dust emissions, water and sewage management and waste management.

An example is the significant change of regulations on the classification of the status for groundwater bodies and the scope of preparing initial site condition reports which took place in 2016.

The CIECH Group's activity, in particular that of its soda companies, is significantly affected by legal changes in the scope of the emissions trading system.

The completion of works related to the revision of the Carbon Leakage List is scheduled at 2019. The project assumes the decrease of the number of sectors from 175 to 50 after 2020. The soda industry runs the risk of losing the Carbon Leakage exposed status and therefore the risk of loss of free permits after 2020.

Therefore, it cannot be ruled out that legal developments unfavourable to the CIECH Group will result in the need to incur additional costs.

Another material risk is related to the planned revision of the Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilizers, which, with the currently proposed provisions, does not provide for the possibility to use soda lime for production of fertilizers. The CIECH Group conducts works on finding a different application for the product.

Any such factors may have negative impact on the CIECH Group's operating activities and financial situation.

**The risk is estimated to be moderate**

#### Risk mitigation methods

The CIECH Group companies comply with standards defined by law. By introducing a uniform Environmental Policy, the CIECH Group strives to implement the best available practices.

Pursuant to provisions of Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions – IED, implemented in Polish law in 2014 and the adopted National Transitional Plan concerning the reduction of emissions of gaseous and particulate pollutants emitted in CHP plants in Janikowo and Inowrocław, the CIECH Group carried out the modernization of electrofilters and implements projects in the area of desulphurisation and denitrogenation of flue gas.

The main goal of the investment project is to increase the atmosphere protection level through the reduction of pollution emissions and adaptation of installations to new emission standards.

The CIECH Group companies hold valid permits required by the Water Law Act. In 2016, CIECH Soda Polska S.A. obtained new permits required by the Water Law Act for the disposal of waste water, valid until 2026. Moreover, the CIECH Group conducts works related to the preparation of initial site condition reports which will reduce, to a large extent, the negative impact of legal requirements related to water and sewage management on the CIECH Group's performance.

#### Risk related to changes in regulations concerning registration of plant protection products on target markets

Compliance with the increasingly stringent legal requirements related to the manufacturing products research, evaluation, registration and safety analysis may lead to substantial additional costs or reduction or elimination of the availability and/or tradability of some raw materials used in products manufacturing.

The products manufactured and the raw materials used in production by the CIECH Group are subject to many legal regulations in the scope, among others, of registration and safety analysis of substances they contain. The EU Regulation (EC) No 1907/2006 on Registration, Evaluation, Authorization and Restriction of Chemicals ("REACH") imposes substantial obligations on the entire chemical industry concerning research, evaluation and registration of chemical substances produced or imported from non-EU member countries.

In connection with the REACH regulation or Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixed chemical products ("CLP Regulation"), certain substances in raw materials or products may be classified as having adverse impact on the environment, product users or employees. Their production can be subject to authorization in the European Chemicals Agency (ECHA) or completely restricted.

Any such laws or regulations which may be adopted in the future can adversely affect the availability and/or tradability of



Legal and regulatory risks

the raw materials used and products manufactured by the CIECH Group, lead to restriction or ban on their purchase or sale, or oblige the Group to incur increasing costs of fulfilling the requirements regarding registration, labelling and use of products. Furthermore, since some of the products manufactured by the CIECH Group are sold on markets on which proper classification is very important for legal requirements determined for such substances, it cannot be excluded that the Group's classification will be questioned or challenged. Any such factors may have negative impact on the CIECH Group's operating activities and financial situation.

EC Regulation No 1107/2009 concerning the placing of plant protection products on the market imposes an increasing number of requirements on entities who place plant protection products on the market. The scope of registration tests required for the registration of a plant protection product keeps growing, resulting in the need to constantly increase research expenditure. Moreover, guidelines regarding the necessary product risk assessment concerning the impact on human or animal health and impact on environment and organisms living in this environment continue to change. Active substances used in plant protection products are cyclically assessed in terms of risk, which entails a re-evaluation of plant protection products on a given market.

**The risk is estimated to be moderate**

**Risk mitigation methods**

To reduce this risk, the Group continues to carry out market and business analyses and develops registration plans in such manner, as to select appropriate active substances for the tests. The CIECH Group monitors regulatory environment related to particular active substances, including regulations and requirements for the scope of tests.

**Risk associated with judicial proceedings or other non-judicial proceedings**

The CIECH Group is exposed to an inseparable risk of susceptibility to diverse types of claims and legal proceedings resulting from cooperation with customers, counterparties, employees and other parties, as well as from the fact that CIECH S.A.'s shares are listed on Warsaw Stock Exchange and on Frankfurt Stock Exchange.

The CIECH Group companies are subject to adversarial proceedings, including anti-trust proceedings that could be detrimental to their interests if the final decision is unfavourable. In the future, the CIECH Group members may also become a party to legal proceedings regarding, among others, intellectual property rights, producer's liability, product guarantee, environmental or antitrust claims, or enter into settlements regarding legal proceedings and claims that may exert material adverse effect on their operating results.

**The risk is estimated to be moderate**

**Risk mitigation methods**

In accordance with the accounting policy, provisions are created for such proceedings if it is highly probable that costs will be incurred and their amount may be reasonably assessed. The CIECH Group introduces appropriate internal regulations aimed at eliminating or reducing this risk.

CIECH S.A., as a holding company managing the Group, is exposed to analogous risks to its operations.

**3.5 CORPORATE SOCIAL RESPONSIBILITY (CSR)**

Equal concern for economic, social and environmental issues is an important element of the management strategy at the CIECH Group and CIECH S.A.



### 3.5.1 CSR IN THE CIECH GROUP

Each year, the CIECH Group gradually increases outlays on environmental investments to comply with stringent environmental protection law requirements and maintain proper technology regime.

In environments where the Group operates, it strives to be a good neighbour and support local initiatives through the organisation of sporting and cultural events and educational programmes regarding environmental protection.

#### Selected initiatives implemented in the CIECH Group in 2016

- CIECH S.A. became a content-related partner of the 3<sup>rd</sup> Environment Protection Forum – water, soil and air in industry, which took place on 24 and 25 November 2016. The event was organised by the powermeetings.eu Team and was focused on current topics related to new water and sewage management requirements, initial site condition reports and new BAT Conclusions for the chemical industry.
- At the end of October, CIECH S.A. became a sponsor of the Alfabet Sztuki (“Alphabet of Art”) project organised by the Society for the Encouragement of the Fine Arts in collaboration with Zachęta, the National Gallery of Art. It is a series of meetings for teachers from middle schools and high schools aimed at presenting the methods of engaging students in an independent analysis of the works of art and improving the tools to interpret and decipher the language of contemporary artists.
- In 2016, CIECH S.A. organised its first Dni Pola (“Field Days”), with the support from CIECH Sarzyna S.A. This event was a unique opportunity for farmers to learn about the state-of-the-art solutions for agriculture, including to compare and select the best plant protection products.

In addition, in 2016 new initiatives as part of the long-term “Healthmanagement” project were implemented in CIECH Soda Deutschland GmbH & Co. KG, aimed at supporting employees in development of healthy eating habits and maintaining good physical condition every day. In 2016, for a third year in a row, employees of CIECH Soda Romania S.A. provided support to children from the “Pinocchio” Children’s House in Băbeni, by donating packages with food products. The CIECH Group continues to collaborate with “Zaczytani” foundation that cares for young readers. The CIECH Group companies collect books for children and the youth, which are then donated to local social assistance centres. In 2016, employees of the Group also had an opportunity to assign additional budget to CSR initiatives selected by them.

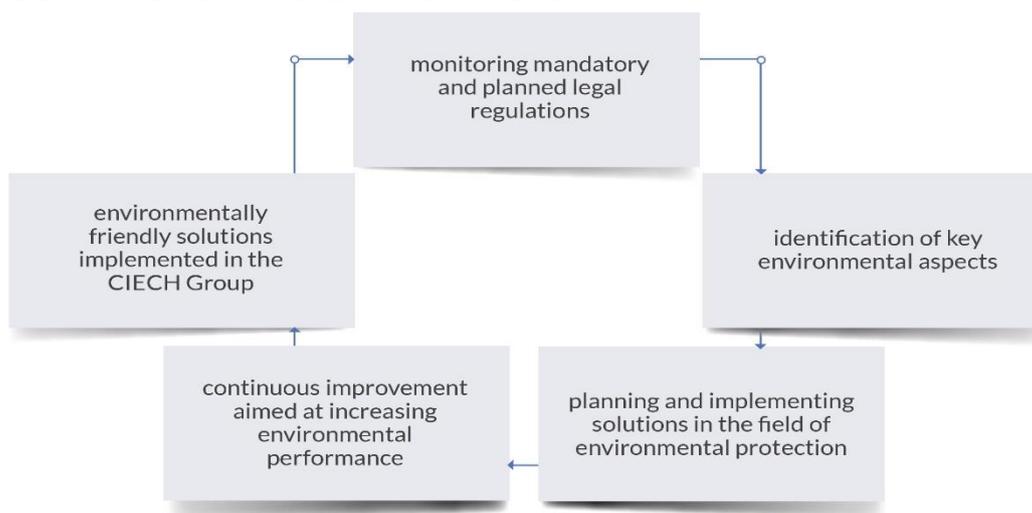
#### Code of Ethics of the CIECH Group

The CIECH Group makes every effort to ensure equal treatment in employment, and to prevent discrimination and mobbing. An example of the company’s commitment in this area is, among others, the Code of Ethics of the CIECH Group implemented in 2014. It is a set of rules and universal values that govern the conduct of both the Management Board and the employees in their everyday and professional lives. Transparency and professionalism of activities focused on customers are the key corporate values underpinning the Code of Ethics and collaboration within the Group.

### 3.5.2 KEY ISSUES RELATED TO ENVIRONMENTAL PROTECTION

For the CIECH Group, an important issue in the area of environmental protection is maintaining the technology regime and high quality of products, but also minimising negative impact on the environment by limiting emission of pollution to the atmosphere, waters and soil, rational waste management and optimisation of energy consumption per one tonne of the output. Environmental issues are a priority for the CIECH Group, which was reflected in the development and implementation of a Uniform Environmental Policy in 2016. Pursuant to the Policy, all companies of the Group are required to comply with applicable environmental law regulations, reduce air emissions and the amount of wastes produced, utilize natural resources in a rational manner and combat climate changes through CO<sub>2</sub> reduction, and to maintain good social relations in communities where business activities are conducted.

FIGURE 32: ENVIRONMENTAL MANAGEMENT SYSTEM IN THE CIECH GROUP



During the last several years, the CIECH Group has implemented a number of investment projects in the soda segment to support the protection of atmosphere, including:

- extending the centre of decantation and filtration of distillation sludge in the Plant in Inowrocław
- reduction of dust emissions from the CHP Plant in Inowrocław by modernising through upgrade of the ESP units on boilers
- modernising electrical boilers and construction of an exhaust gas desulphurisation plant in Janikowo CHP plant
- establishment of a system for channeling and isolating fly-ash for raw material recovery in Zakład Gospodarki Popiołami in Janikowo

At present, the Group continues to carry out further projects in the scope of, among others, desulphurisation and denitrogenation of flue gas, reduction of CO<sub>2</sub> emissions and reduction of energy consumption. The main goal of the investment is to increase the atmosphere protection level and adaptation of installations to new emission standards set forth in the Industrial Emissions Directive (IED).

Production plants of CIECH Group operate under required permits and administrative decisions. The majority of production companies within the CIECH Group have implemented environment management systems in conformity with ISO 14001 regulations.

The National Transitional Plan (PPK), applicable to plants that produce energy and steam, extended the deadline to adjust LCP (Large Combustion Plant) systems to new standards, until 30 June 2020 at the latest.

As of 1 July 2020, plants that produce energy and steam will be required to observe very restrictive emission standards for dust (20-25 mg/Nm<sup>3</sup>), sulphur oxides (200-250 mg/Nm<sup>3</sup>) and nitrogen oxides (200 mg/Nm<sup>3</sup>) emissions introduced for large combustion plans (LCP).

It should also be mentioned that the works on the BAT Conclusions for LCP are being carried out, which are expected to be published in 2017. The installations have only 4 years as of the entry of the BAT Conclusions into force to adapt to the requirements which are more stringent than those set in the IED Directive, i.e. for dust (15–20 mg/Nm<sup>3</sup>), sulphur oxides (130–200 mg/Nm<sup>3</sup>) and nitrogen oxides (150–180 mg/Nm<sup>3</sup>) emissions.

Material legislative changes influencing activity of the CIECH Group include the duty to draw up initial site condition reports and monitor the quality of underground water by owners of IPPC installations.

In the area of regulations concerning the emissions trading system, works on revising the ETS Directive are currently underway. Due to the early stage of works at European institutions and clear expectations as to proposals of specific solutions, there is a possibility to have a real impact on the shape of future reform of the ETS. The coming months will be decisive from the point of view of the intensity of works and impact on them.

#### Legal status of the use of the environment

CIECH Group's companies operate under the current administrative decisions regarding the manner and extent of use of the environment. All CIECH Group's companies operating IPPC plants received integrated permits.

**TABLE 6: LIST OF INTEGRATED PERMITS HELD BY CIECH GROUP COMPANIES.**

Company	Permit for	Validity period
CIECH Soda Polska S.A. – Production Plant in Inowrocław	Integrated permit for installation to manufacture light soda ash and dense soda ash, baking soda, calcium chloride, absorbent masses and manufacture of agricultural lime.	Indefinite
CIECH Soda Polska S.A. – Production Plant in Janikowo	Integrated permit for installation to manufacture light soda ash and dense soda ash, waste disposal and other installations to manufacture wet and dry vacuum salt, agricultural lime, cargo transport by cableway.	Indefinite
CIECH Soda Polska S.A. – Power Plant in Inowrocław	Integrated permit for heat and power station’s installation (4 OP-110 boilers).	Indefinite
CIECH Soda Polska S.A. – Power Plant in Janikowo	Integrated permit for heat and power station’s installation (3 CKTI boilers and 2 OP-140 boilers).	Indefinite
CIECH Soda Deutschland GmbH & Co. KG	Integrated permit for installations to manufacture light and dense soda ash, and baking soda.	Indefinite
CIECH Energy Deutschland GmbH	Integrated permit for heat and power station’s installation.	Indefinite
CIECH Soda Romania S.A.	Integrated permit for installation to manufacture soda ash.	12.09.2022
CIECH Sarzyna S.A.	Integrated permit for installations to manufacture unsaturated and saturated polyester resins, epoxy resins, curing agents for epoxy resins, phenol-formaldehyde resins, Ukanol DOP, Flodur, Adufer, orthophenylenediamine, o-FDA, phosphating concentrates and plant protection products (MCPA, MCPP, BCM carbendazim).	Indefinite
CIECH Vitrosilicon S.A. – Plant in Żary	Integrated permit for installations to manufacture sodium silicate glass and potassium silicate glass.	Indefinite
CIECH Vitrosilicon S.A. – Plant in Iłowa	Integrated permit for the installation to manufacture sodium and potassium water glass, glass packaging and CLAROGLOSS glass blocks.	Indefinite
CIECH Pianki Sp. z o.o.	Integrated permit for the installation to manufacture PUR foams.	Indefinite

### Environmental liabilities

Due to the nature of the CIECH Group's business, there are active sources of groundwater pollution on some of the Group's lands. The Group incurs ongoing operating expenses and establishes provisions related to the reclamation of contaminated soil and groundwater purification. The amount of provisions for environmental liabilities in CIECH Group as at 31 December 2016 amounted to PLN 80,128 thousand and as at 31 December 2015 amounted to PLN 70,393 thousand.

### EU REACH Regulation

The REACH Directive binding from 1 June 2007 concerns safe usage of chemical substances produced or imported (from countries outside EU) in quantities exceeding 1 ton annually. Producers and importers who put substances to turnover in the EU customs area were obligated to registration – initial, until 1 December 2008 and after, the appropriate – in three terms, depending on the introducing substance tonnage. In the completed second stage (until 31 May 2013) one substance with tonnage range of 100-1000 Mg per year was registered by the CIECH Group. In the third stage (until 31 May 2018), 38 marketed substances in the quantity of 1-100 Mg/y are planned to be registered.

Additional information on the REACH Regulation is provided in items 2.1 and 3.4 of this Report.

### Emission trading

Information on emission trading is provided in items 2.1 and 3.4 of this Report.

### 3.5.3 SPONSORSHIP AND CHARITY POLICY

Sponsorship activities of CIECH S.A. are aimed at supporting the business and strengthening the positive image of the CIECH Group.

Sponsorship activities are carried out primarily in the cities, where production plants and the head office of the Group are located. Sponsorship activities involve mainly the activities supporting educational and cultural initiatives, or initiatives aimed at supporting local communities, in which the CIECH Group functions.

Charity activities of the CIECH Group are related primarily to education of children and youth, and popularisation of the chemistry knowledge (primary objective). The Group also supports local communities, inter alia, by education, donations, in particular, in the case of catastrophes and unexpected events.

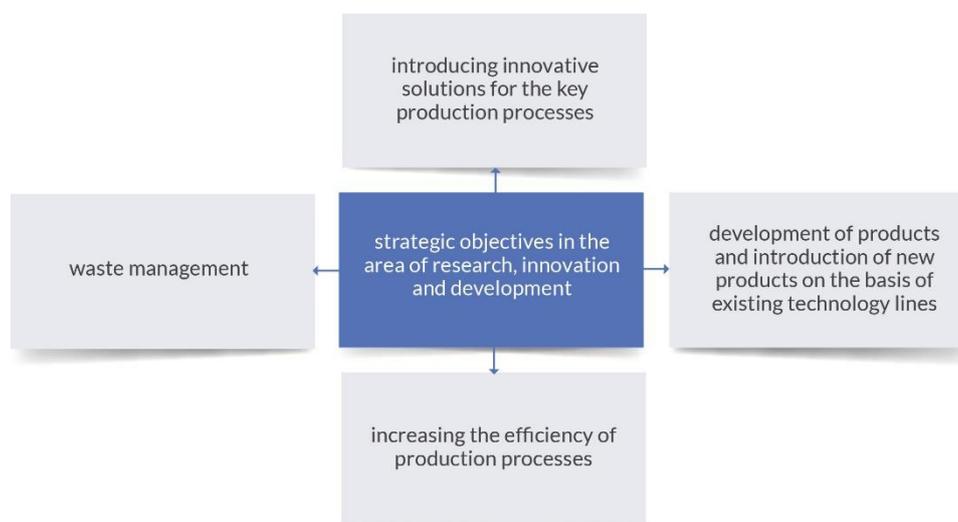
### 3.6 RESEARCH AND DEVELOPMENT

The CIECH Group consistently implements innovations in key areas of its operations. The activities taken are focused on the development and improvement of products for key markets, improvement of existing processes and improvement of productivity and energy efficiency as well as implementation of innovative technologies. The CIECH Group has the ambition to become a leader among the most advanced chemical groups in Poland and worldwide.

In the CIECH Group, research, innovation and development activities are concentrated in CIECH R&D Sp. z o.o. that coordinates and carries out research and development activities for companies from the Group.

The CIECH Group collaborates with universities and experts in the area of innovation and development, and a part of project implemented is co-financed from EU funds as well as from domestic and regional support funds.

FIGURE 33: STRATEGIC OBJECTIVES IN THE AREA OF RESEARCH, INNOVATION AND DEVELOPMENT



### Achievements in research and development

Selected projects in the area of innovation implemented by CIECH R&D Sp. z o.o. in 2016:

- Optimisation of production of soda and soda derived products through the utilisation of concentrated CO<sub>2</sub> waste streams with the process of chemisorption of carbon dioxide in distillation residue suspension to improve the prosperities of soda lime.

The objective of the project is to develop the economically most advantageous method of capturing and concentrating carbon dioxide. The project is co-financed from the INNOCHEM programme.

Benefits for the CIECH Group: lower costs of raw materials, reduced risk related to an increase in CO<sub>2</sub> allowances. In addition, the project will result in lower CO<sub>2</sub> emissions – significant environmental effect.

- Development by CIECH R&D Sp. z o.o., in collaboration with Nicolaus Copernicus University in Toruń (subcontractor), of a globally innovative technology of carbonization of ammonia brine, allowing for increasing the efficiency of the soda ash production process. The project is co-financed from the INNOCHEM programme.

### Cooperation with universities and institutes

In 2016, CIECH R&D Sp. z o.o. implemented research and development projects in cooperation with renowned universities and institutes, including:

#### Universities

- University of Agriculture in Kraków
- Nicolaus Copernicus University in Toruń
- University of Rzeszów
- Wrocław University of Technology
- Rzeszów University of Technology
- University of Wrocław

#### Institutes

- New Chemical Synthesis Institute Inorganic Chemistry Division "ICHN" in Gliwice – ICHN in Gliwice
- Institute For Chemical Processing of Coal – ICHPW in Zabrze
- Institute of Industrial Organic Chemistry – IPO in Warsaw
- Industrial Research Institute for Automation and Measurements PIAP
- Industrial Chemistry Research Institute in Warsaw



**FINANCIAL POSITION**  
OF THE CIECH GROUP AND CIECH S.A.



## 4

**FINANCIAL POSITION OF THE CIECH GROUP AND CIECH S.A.**
**4.1 PRINCIPLES FOR DRAWING UP THE ANNUAL FINANCIAL STATEMENTS OF THE CIECH GROUP AND CIECH S.A.**

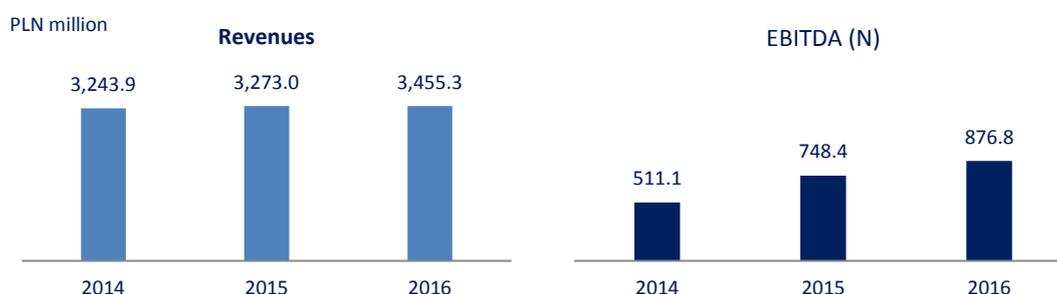
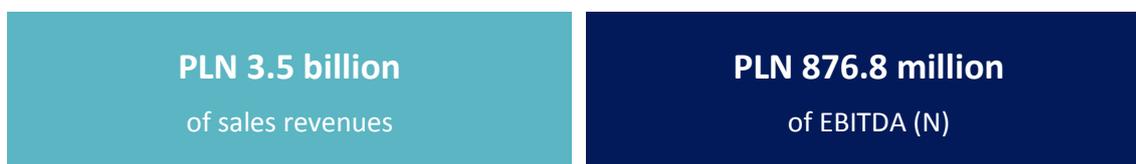
The consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A. have been prepared in accordance with accounting principles consistent with the International Financial Reporting Standards (IFRS) that were approved by the European Union (EU) and were effective as at 31 December 2016.

The consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A. have been prepared on a historical cost basis, except for financial instruments at fair value through profit or loss, available-for-sale financial assets, and investment real property at fair value.

The consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A. give a fair view of the financial and economic position of the CIECH Group and CIECH S.A. as at 31 December 2016, results of their operations and cash flows for the year ended 31 December 2016. The consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A. were prepared on a going concern basis. As at the date of approval of the consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A., no facts or circumstances are known that would indicate any threat to the CIECH Group and CIECH S.A. continuing as going concerns. References to accounting policies applied in the preparation of the consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A. have been presented, respectively, in notes: 1.4 to the consolidated financial statements of the CIECH Group and 1.4 to the separate financial statements of CIECH S.A.

**4.2 REVIEW OF KEY ECONOMIC AND FINANCIAL FIGURES CONCERNING THE CIECH GROUP**

In 2016, the CIECH Group generated:



In 2016, the Group's results were most significantly shaped by:

- sale of additional volumes of soda ash from Soda +200 investment project,
- maintaining attractive sales prices of soda produced in Poland and Germany,
- favorable market situation (prices of energy fuels and furnace fuels, currency situation).



In 2016, the CIECH Group generated sales revenues in the amount of PLN 3,455,335 thousand and normalised EBITDA of PLN 876,832 thousand. Net profit on continuing operations reached PLN 594,136 thousand, net cash increased by PLN 213,744 thousand and total assets amounted to PLN 4,501,892 thousand as at the end of 2016.

#### Forecast performance of the CIECH Group

The CIECH Group did not publish any forecasts for 2016.

### 4.2.1 STATEMENT OF PROFIT OR LOSS OF THE CIECH GROUP

TABLE 7: CONSOLIDATED STATEMENT OF PROFIT OR LOSS OF THE CIECH GROUP

	2016	2015*	2014*	Change 2016/2015
<b>CONTINUING OPERATIONS</b>				
Sales revenues	3,455,335	3,273,014	3,243,900	5.6%
Cost of sales	(2,415,670)	(2,407,469)	(2,570,773)	(0.3%)
<b>Gross profit/(loss) on sales</b>	<b>1,039,665</b>	<b>865,545</b>	<b>673,127</b>	<b>20.1%</b>
Selling costs	(231,462)	(194,866)	(214,516)	(18.8%)
General and administrative expenses	(157,990)	(145,214)	(142,405)	(8.8%)
Other operating income/expense	10,107	(35,649)	5,609	-
<b>Operating profit/(loss)</b>	<b>660,320</b>	<b>489,816</b>	<b>321,815</b>	<b>34.8%</b>
Net financial income/expenses	(36,044)	(212,597)	(142,993)	83.0%
Share of profit of equity-accounted investees	674	163	251	313.5%
Income tax	(30,814)	68,623	(45,291)	-
<b>Net profit/(loss) on continuing operations</b>	<b>594,136</b>	<b>346,005</b>	<b>133,782</b>	<b>71.7%</b>
<b>DISCONTINUED OPERATIONS</b>				
Net profit/(loss) on discontinued operations	-	-	32,571	-
<b>Net profit / (loss)</b>	<b>594,136</b>	<b>346,005</b>	<b>166,353</b>	<b>71.7%</b>
including:				
Net profit/(loss) attributed to non-controlling interest	623	3,018	(763)	(79.4%)
Net profit/(loss) attributable to shareholders of the parent company	593,513	342,987	167,116	73.0%
EBITDA from continuing operations	883,794	707,538	526,302	24.9%
Normalised EBITDA from continuing operations**	876,832	748,456	511,126	17.2%

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

\*\* Principles of calculating EBITDA and normalised EBITDA have been described in section "Ratio calculation methodology".

#### Sales revenues

Consolidated sales revenues net from continuing operations of the CIECH Group for 2016 amounted to PLN 3,455,335 thousand. Compared to the previous year, revenues increased by PLN 182,321 thousand (i.e. by 5.6%). The changes were mainly due to market factors.

#### Gross sales result

Cost of goods sold for 2016 amounted to PLN 2,415,670 thousand, which represents a slight increase by PLN 8,201 thousand (i.e. by 0.3%) compared to the cost of goods sold in 2015, amounting to PLN 2,407,469 thousand. The level of the cost of goods sold resulted primarily from prices of energy carriers (natural gas, coal) in the soda segment and prices of oil-derivative products in the organic segment.

#### Operating profit/loss

Selling costs for 2016 amounted to PLN 231,462 thousand which represents an increase by PLN 36,596 thousand (i.e. by 18.8%), compared to PLN 194,866 thousand in 2015. Selling costs accounted for 6.7% of sales revenues for 2016 (compared to 6.0% for 2015). The increase in selling costs in 2016 was related primarily to the increase in sales, in particular sales of additional soda volumes.



General and administrative expenses for 2016 amounted to PLN 157,990 thousand which is an increase by PLN 12,776 thousand (i.e. by 8.8%) as compared to PLN 145,214 thousand in 2015. The increase in these expenses as compared to 2015 resulted primarily from an increased range of support services provided by CIECH S.A. to the Group companies and from the implementation of the Group's strategic projects.

Other operating income for 2016 amounted to PLN 86,610 thousand which represents an increase by PLN 33,683 thousand (i.e. by 63.6%), compared to the amount of PLN 52,927 thousand for 2015. The increase in other operating income in 2016 resulted primarily from a positive revaluation of investment property to fair value and from reversal of provisions for liabilities.

Other operating expenses for 2016 amounted to PLN 76,503 thousand which represents a PLN 12,073 thousand decrease from 2015, when these expenses amounted to PLN 88,576 thousand.

Operating profit for 2016 reached PLN 660,320 thousand, while in the comparable period it amounted to PLN 489,816 thousand.

### Financing activities and net profit/loss

Financial income for 2016 amounted to PLN 23,551 thousand and recorded an increase from the corresponding period of the preceding year, when it amounted to PLN 6,406 thousand.

Financial expenses for 2016 amounted to PLN 59,595 thousand and recorded a significant drop as compared to the corresponding period of the preceding year, when they amounted to PLN 219,003 thousand.

The contributors in the area of financing activities included costs of servicing external debt — interest on loans and bonds (these costs decreased compared to the corresponding period) as well as bank fees and commissions.

The consolidated net profit for 2016 amounted to PLN 594,136 thousand (of which PLN 593,513 thousand was a net profit attributable to the shareholders of the parent company and PLN 623 thousand was the profit of non-controlling shares). This result was influenced mainly by profit on sales partially offset by loss on financing activities. The net result of the Group was also impacted by income tax in the amount of PLN 30,814 thousand. This figure was positively adjusted by the deferred tax asset in the amount of PLN 90,759 thousand recognised in CIECH Soda Polska S.A. due to the tax exemption applicable in the Pomeranian Special Economic Zone.



### EBITDA<sup>1</sup>

TABLE 8: CONSOLIDATED EBITDA OF THE CIECH GROUP[

	2016	2015	2014	Change 2016/2015
Net profit/(loss) on continuing operations	594,136	346,005	133,782	71.7%
Income tax	30,814	(68,623)	45,291	-
Share of profit of equity-accounted investees	(674)	(163)	(251)	(313.5%)
Financial expenses	59,595	219,003	151,364	(72.8%)
Financial income	(23,551)	(6,406)	(8,371)	(267.6%)
Amortisation/depreciation	223,474	217,722	204,487	2.6%
<b>EBITDA from continuing operations</b>	<b>883,794</b>	<b>707,538</b>	<b>526,302</b>	<b>24.9%</b>

<sup>1</sup> EBITDA is the net profit/loss for a financial year plus income tax plus a share in net profit of subordinated entities evaluated with the equity method plus costs/financial income plus profit/loss on sale of a discontinued operation plus amortization. EBITDA is not a liquidity ratio or business performance ratio calculated in accordance with IFRS. EBITDA should be viewed as a supplement not as a substitute for the business performance presented in accordance with IFRS. EBITDA is a useful ratio of the ability to incur and serve debt. EBITDA and similar ratios are used by different companies for different purposes and are often calculated in a manner adapted to the conditions in which these companies exist. Care needs to be exercised when comparing EBITDA with EBITDA of other companies.

EBITDA from continuing operations for 2016 amounted to PLN 883,794 thousand which represents an increase by PLN 176,256 thousand from the amount of PLN 707,538 thousand earned in 2015. The increase of EBITDA was primarily due to the significant increase of the gross profit on sales as well as the result on other operating activities.

The EBIT margin ratio amounted to 19.1% at the end of 2016 (15.0% in the preceding year) and the EBITDA margin ratio amounted to 25.6% (21.6% in the preceding year). The EBIT margin ratio excluding one-off events amounted to 18.9% at the end of 2016 (16.2% in the preceding year), and the EBITDA margin ratio excluding one-off events amounted to 25.4% (22.9% in the preceding year).

### Normalised EBITDA

Normalised EBITDA<sup>2</sup> is another additional ratio of operating performance. Normalised EBITDA is EBITDA adjusted for costs/revenues that were classified by the management as one-off due to their nature. We believe that normalised EBITDA is an important ratio when estimating and measuring the recurring performance.

TABLE 9: NORMALISED EBITDA OF CIECH GROUP

	2016	2015	2014
<b>EBITDA</b>	<b>883,794</b>	<b>707,538</b>	<b>526,302</b>
One-offs including:	(6,962)	40,918	(15,176)
Impairment (a)	1,612	2,119	(17,791)
Cash items (b)	(3,371)	1,143	(625)
Non-cash items (without impairment) (c)	(5,203)	37,656	3,240
<b>Normalised EBITDA from continuing operations</b>	<b>876,832</b>	<b>748,456</b>	<b>511,126</b>

(a) Impairment losses are associated with the creation/reversal of impairment write-downs of assets value.

(b) Cash items include, among others, profit/loss of the sale of property, plant and equipment and other items (including costs associated with discontinued operations, fees and compensations).

(c) Non-cash items include: fair value measurement of investment properties, costs of liquidation of inventories and property, plant and equipment, the costs of suspended investments, environmental provisions, provisions for liabilities and compensation, costs of unused production capacity and other items (including extraordinary costs and other provisions).

## 4.2.2 FINANCIAL PERFORMANCE BY OPERATING SEGMENT OF THE CIECH GROUP

During 2016, the CIECH Group's activities were focused on four operating segments: soda, organic, silicates and glass, and on the transport segment. Additionally, financial performance reported includes figures for the "other operations" segment and consolidation exclusions. The structure of sales revenues, by business segment, has not changed significantly in comparison with 2015. Invariably, the largest share in revenues was attributed to the sales of soda segment products (soda ash, baking soda and salt), i.e. 70.8%.



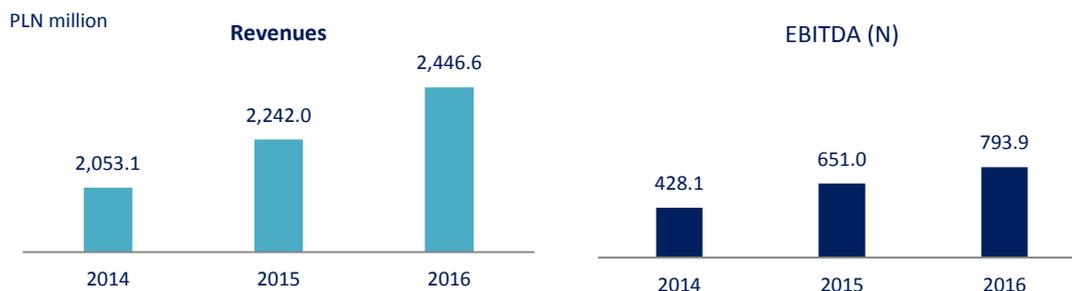
### SODA SEGMENT

Soda ash | Baking soda | Salt

**71%** | of the CIECH Group's revenues in 2016

<sup>2</sup> Other companies may calculate normalised EBITDA in a manner different from the manner applied by the CIECH Group. Normalised EBITDA is not a measure of financial performance under IFRS and is therefore not audited. It should not be used as a ratio of liquidity or as an alternative to operating profit or net profit for a year or as another measure of results calculated in accordance with IFRS.

FIGURE 34: REVENUES AND NORMALISED EBITDA IN THE SODA SEGMENT OF THE CIECH GROUP



In 2016, the Group's results in the **soda segment** were most significantly shaped by:

**Positive developments:**

- increase in the volume of production and sales of soda – sale of additional volumes of calcinated soda from Soda +200 investment,
- maintaining attractive sales prices of soda produced in Poland and Germany,
- favorable currency situation – weakening of PLN and RON in relation to EUR and USD,
- change in the product mix and customer portfolio,
- development of specialist products in the area of salt and baking soda,
- lower prices of furnace fuels (coke) and energy carriers (coal, gas).

**Negative developments:**

- slight decrease in sales prices of soda produced in Romania – an effect of increased competitiveness of American soda to the detriment of Chinese soda,
- lower sales volumes of soda from Romania as a result of the unit being stopped in August 2016 (lack of steam supplies from CET Govora),
- high supply and intensive activities of competitors on the salt market, pressure on price reductions.

TABLE 10: THE CIECH GROUP'S RESULTS IN THE SODA SEGMENT

	2016	2015*	2014*	Change 2016/2015	Change %	% of total revenues in 2016	% of total revenues in 2015	% udziału w przychodach ogółem 2014
<b>Sales revenues</b>	<b>2,446,568</b>	<b>2,241,985</b>	<b>2,053,074</b>	<b>204,583</b>	<b>9.1%</b>	<b>70.8%</b>	<b>68.5%</b>	<b>63.2%</b>
Dense soda ash	1,432,439	1,267,148	1,103,225	165,291	13.0%	41.5%	38.7%	34.0%
Light soda ash	448,085	436,637	378,206	11,448	2.6%	13.0%	13.3%	11.7%
Salt	181,374	170,203	166,953	11,171	6.6%	5.2%	5.2%	5.1%
Baking soda	162,390	153,580	150,367	8,810	5.7%	4.7%	4.7%	4.6%
Energy	90,853	64,237	84,645	26,616	41.4%	2.6%	2.0%	2.6%
Gaz**	20,124	37,885	44,478	(17,761)	(46.9%)	0.6%	1.2%	1.4%
Calcium chloride	23,256	18,282	23,868	4,974	27.2%	0.7%	0.6%	0.7%
Other products	58,732	66,928	71,502	(8,196)	(12.2%)	1.7%	2.0%	2.2%
Revenues from inter-segment transactions	29,315	27,085	29,830	2,230	8.2%	0.8%	0.8%	0.9%
<b>Gross profit /(loss) on sales</b>	<b>879,214</b>	<b>721,811</b>	<b>491,435</b>	<b>157,403</b>	<b>21.8%</b>			
<b>EBITDA</b>	<b>799,437</b>	<b>625,098</b>	<b>456,310</b>	<b>174,339</b>	<b>27.9%</b>			
<b>Normalised EBITDA</b>	<b>793,921</b>	<b>651,002</b>	<b>428,095</b>	<b>142,919</b>	<b>22.0%</b>			

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

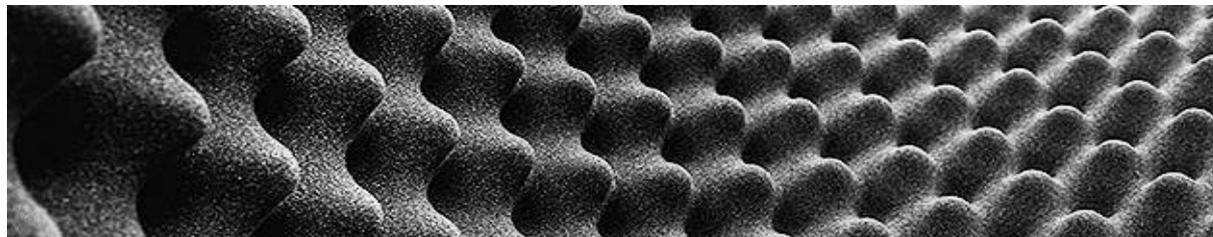
\*\* Resale of surplus gas.

Sales in the soda segment for 2016 amounted to PLN 2,446,568 thousand which represents an increase by PLN 204,583 thousand (i.e. by 9.1%) as compared to sales for 2015, amounting to PLN 2,241,985 thousand. This increase was due mainly



to a higher product sales volume, increase in soda prices and weakening of local currencies ((PLN and RON) to EUR and USD).

The gross profit on sales in the soda segment for 2016 amounted to PLN 879,214 thousand compared to PLN 721,811 thousand for 2015. This improvement was impacted by the aforementioned increase in the volume and prices of the soda products as well as decreased prices of energy carriers (natural gas, coal).

**ORGANIC SEGMENT**

Plant protection products | Polyurethane foams | Resins

**22%** | of the CIECH Group's revenues in 2016

FIGURE 35: REVENUES AND NORMALISED EBITDA IN THE ORGANIC SEGMENT OF THE CIECH GROUP



In 2016, the Group's results in the **organic segment** were most significantly shaped by:

**Positive developments:**

- effective foreign expansion – doubling revenues from the export of plant protection products,
- efficient pre-season sales of plant protection products earned in the 4th quarter of 2016,
- increase in margin generated on plastics – intensification of production of products for specialised applications, optimisation of the portfolio towards higher-margin products,
- increase in the sales volume of foams resulting from increased demand from upholstered furniture manufacturers.

**Negative developments:**

- lower sales volumes of plant protection products (market conditions, delays in EU subsidies for agriculture) and plastics (competitive pressure from Asian and European suppliers),
- decline in prices of polyurethane foam blocks.

TABLE 11: THE CIECH GROUP'S RESULTS IN THE ORGANIC SEGMENT

	2016	2015*	2014*	Change 2016/2015	Change %	% of total revenues in 2016	% of total revenues in 2015	% udziału w przychodach ogółem 2014
<b>Sales revenues</b>	<b>766,119</b>	<b>769,877</b>	<b>784,141</b>	<b>(3,758)</b>	<b>(0.5%)</b>	<b>22.2%</b>	<b>23.6%</b>	<b>24.1%</b>
Resins	297,891	343,080	336,899	(45,189)	(13.2%)	8.7%	10.5%	10.4%
Polyurethane foams	245,120	218,881	231,025	26,239	12.0%	7.1%	6.7%	7.1%
Plant protection chemicals	208,903	192,678	204,825	16,225	8.4%	6.0%	5.9%	6.3%



	2016	2015*	2014*	Change 2016/2015	Change %	% of total revenues in 2016	% of total revenues in 2015	% udziału w przychodach ogółem 2014
Other	10,063	12,101	11,352	(2,038)	(16.8%)	0.3%	0.4%	0.3%
Revenues from inter- segment transactions	4,142	3,137	40	1,005	32.0%	0.1%	0.1%	0.0%
<b>Gross profit /(loss) on sales</b>	<b>136,888</b>	<b>134,548</b>	<b>120,266</b>	<b>2,340</b>	<b>1.7%</b>			
<b>EBITDA</b>	<b>77,832</b>	<b>86,101</b>	<b>66,536</b>	<b>(8,269)</b>	<b>(9.6%)</b>			
<b>Normalised EBITDA</b>	<b>79,543</b>	<b>85,751</b>	<b>67,126</b>	<b>(6,208)</b>	<b>(7.2%)</b>			

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

Sales in the organic segment for 2016 amounted to PLN 766,119 thousand which represents a decrease by PLN 3,758 thousand (i.e. by 0.5%) as compared to sales for 2015, amounting to PLN 769,877 thousand. The decrease was due mainly to a drop in the sales volume of plastics.

The gross profit on sales in the organic segment for the year ended 31 December 2016 amounted to PLN 136,888 thousand compared to PLN 134,548 thousand for 2015. The main reason for this increase was an improvement in the effectiveness of sales of plastics and PUR foams.



## SILICATES AND GLASS SEGMENT

Glass products | Water glass | Silicates

5% | of the CIECH Group's  
revenues in 2016

FIGURE 36: REVENUES AND NORMALISED EBITDA IN THE SILICATES AND GLASS SEGMENT OF THE CIECH GROUP



In 2016, the Group's results in the **silicates and glass segment** were most significantly shaped by:

### Positive developments:

- implementation of the contract signed with Solvay (since July 2016) – higher volume of sales of sodium silicates manufactured in the new furnace,
- improved results on sales of sodium silicates in Romania following a modernisation of a production installation carried out in 2015,
- stable sales of sodium silicates despite a stagnation in the oil and gas exploration segment,
- weakening of PLN in relation to EUR.

### Negative developments:

- standstill related to the replacement of the old sodium silicate production furnace and start-up of the new installation,
- aggressive competition on the sodium silicate market due to significant unused production capacities,
- increased competition in the glass packaging area and the resulting decrease in sales volume.

TABLE 12: THE CIECH GROUP'S RESULTS IN THE SILICATES AND GLASS SEGMENT

	2016	2015*	2014*	Change 2016/2015	Change %	% of total revenues in 2016	% of total revenues in 2015	% udziału w przychodach ogółem 2014
<b>Sales revenues</b>	<b>190,168</b>	<b>175,012</b>	<b>350,562</b>	<b>15,156</b>	<b>8.7%</b>	<b>5.5%</b>	<b>5.4%</b>	<b>10.8%</b>
Krzemiany sodowe	106,562	81,093	83,469	25,469	31.4%	3.2%	2.5%	2.6%
Krzemiany potasowe	5,048	5,431	9,169	(383)	(7.1%)	0.1%	0.2%	0.3%
Szkoło opakowaniowe	77,279	85,156	82,307	(7,877)	(9.3%)	2.2%	2.6%	2.5%
Other	1,275	3,318	175,612	(2,043)	(61.6%)	0.0%	0.1%	5.4%
Revenues from inter- segment transactions	4	14	5	(10)	(71.4%)	0.0%	0.0%	0.0%
<b>Gross profit /(loss) on sales</b>	<b>51,050</b>	<b>45,437</b>	<b>80,493</b>	<b>5,613</b>	<b>12.4%</b>			
<b>EBITDA</b>	<b>34,675</b>	<b>33,615</b>	<b>35,989</b>	<b>1,060</b>	<b>3.2%</b>			
<b>Normalised EBITDA</b>	<b>34,676</b>	<b>33,462</b>	<b>36,076</b>	<b>1,214</b>	<b>3.6%</b>			

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

\*\* Data for 2014 includes sales of sulfur which was discontinued starting from 2015

Sales in the silicates and glass segment for 2016 amounted to PLN 190,168 thousand which represents an increase by PLN 15,156 thousand (i.e. by 8.7%) as compared to sales for 2015, amounting to PLN 175,012 thousand. The increase resulted primarily from higher sales of sodium silicates.

The gross profit on sales in the silicates and glass segment for 2016 amounted to PLN 51,050 thousand compared to PLN 45,437 thousand for the year ended 31 December 2015.



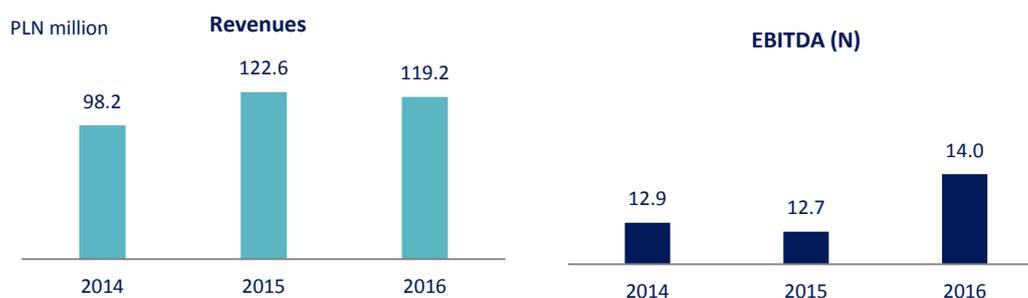
### TRANSPORT SEGMENT

Transport services | Railway transport | Transshipment

3%

of the CIECH Group's  
revenues in 2016

FIGURE 37: REVENUES AND NORMALISED EBITDA IN THE TRANSPORT SEGMENT OF THE CIECH GROUP



In 2016, the Group's results in the **transport segment** were most significantly shaped by:

#### Positive developments:

- increased revenues CIECH Cargo Sp. z o.o. as a result of a higher volume of soda sold by CIECH Soda Polska S.A. and higher volume of services performed outside the Group.

#### Negative developments:

- suspension of infrastructural investments, oversupply of rolling stock, as a consequence falling prices and margins,
- lower purchases of coal dust by CIECH Soda Polska S.A.,
- phasing out of activities of CIECH Transclean Sp. z o.o. at the end of the 2nd quarter of 2016.

TABLE 13: THE CIECH GROUP'S RESULTS IN THE TRANSPORT SEGMENT

	2016	2015*	2014*	Change 2016/2015	Change %	% of total revenues in 2016	% of total revenues in 2015	% udziału w przychodach ogółem 2014
<b>Sales revenues</b>	<b>119,220</b>	<b>122,628</b>	<b>98,215</b>	<b>(3,408)</b>	<b>(2.8%)</b>	<b>3.4%</b>	<b>3.7%</b>	<b>3.0%</b>
Transport services	11,393	13,205	12,457	(1,812)	(13.7%)	0.3%	0.4%	0.4%
Revenues from inter-segment transactions	107,827	109,423	85,758	(1,596)	(1.5%)	3.1%	3.3%	2.6%
<b>Gross profit /(loss) on sales</b>	<b>14,465</b>	<b>13,613</b>	<b>11,826</b>	<b>852</b>	<b>6.3%</b>			
<b>EBITDA</b>	<b>8,854</b>	<b>15,535</b>	<b>10,583</b>	<b>(6,681)</b>	<b>(43.0%)</b>			
<b>Normalised EBITDA</b>	<b>13,976</b>	<b>12,720</b>	<b>12,916</b>	<b>1,256</b>	<b>9.9%</b>			

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

Sales in the transport segment for 2016 amounted to PLN 119,220 thousand which represents a decrease by PLN 3,408 thousand (i.e. by 2.8%) as compared to sales for 2015, amounting to PLN 122,628 thousand. The slight decline was caused mainly by the phasing out of activities of CIECH Transclean Sp. z o.o.

The gross profit on sales in the transport segment for the year ended 31 December 2016 amounted to PLN 14,465 thousand compared to PLN 13,613 thousand for the year ended 31 December 2015.



#### OTHER ACTIVITIES SEGMENT

Services | Distribution | Sale and management of real property

Sales in the other activities segment for 2016 amounted to PLN 108,193 thousand which represents a decrease by PLN 19,267 thousand (i.e. by 15.1%) as compared to sales for 2015, amounting to PLN 127,460 thousand.

The gross profit on sales in the other activities segment for the year ended 31 December 2016 amounted to PLN 32,287 thousand compared to PLN 26,653 thousand for the year ended 31 December 2015.

### 4.2.3 ASSET POSITION OF THE CIECH GROUP

TABLE 14: BASIC CONSOLIDATED BALANCE SHEET DATA

	31.12.2016	31.12.2015*	31.12.2014	Change 2016/2015
<b>Total assets</b>	<b>4,501,892</b>	<b>3,951,251</b>	<b>3,205,697</b>	<b>13.9%</b>
Total non-current assets	3,209,515	2,901,325	2,486,072	10.6%
Total current assets	1,292,377	1,049,926	719,625	23.1%
Inventory	299,265	293,631	257,770	1.9%
Current receivables	515,542	499,196	409,071	3.3%
Cash and cash equivalents	414,369	202,935	49,162	104.2%
Short-term financial assets	59,971	50,781	-	18.1%
Non-current assets held for sale	3,230	3,383	3,622	(4.5%)
<b>Total equity</b>	<b>1,763,492</b>	<b>1,341,504</b>	<b>985,474</b>	<b>31.5%</b>
Equity attributable to shareholders of the parent	1,766,827	1,345,576	994,774	31.3%
Non-controlling interest	(3,335)	(4,072)	(9,300)	18.1%
Total non-current liabilities	1,695,514	1,844,005	1,471,544	(8.1%)
Total current liabilities	1,042,886	765,742	748,679	36.2%

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

### Assets

As at the end of 2016, the Group's non-current assets amounted to PLN 3,209,515 thousand. As compared to the balance as at 31 December 2015, the value of non-current assets increased by PLN 308,190 thousand. The change is mainly related to the investments in property, plant and equipment (partially offset by depreciation) and valuation of financial instruments.

The Group's current assets amounted to PLN 1,292,377 thousand as at 31 December 2016. The largest components of non-current assets included: current receivables accounting for 39.9%, inventory accounting for 23.2% as well as cash and cash equivalents accounting for 32.1% of total current assets. Compared to the end of December 2015, the value of current assets increased by PLN 242,451 thousand. The increase is mainly related to the increased sales in soda segment as a result of increased volumes and prices, seasonality of sales of plant protection chemicals as well as the increased volume of PUR foams in the organic segment.

### Cash resources

The sources of liquidity include cash flows generated from operating activities, cash from the sale of assets, cash from EU grants for capital expenditure, cash available due to the revolving credit facility agreement and overdraft. The Group also uses factoring agreements.

### Liabilities

As at 31 December 2016, the CIECH Group's liabilities (non-current and current) amounted to PLN 2,738,400 thousand, which is an increase compared to the end of December 2015 by PLN 128,653 thousand (i.e. by 4.9%).

The debt ratio amounted to 60.8% as at 31 December 2016 (at the end of December 2015 to 66.0%). The consolidated net debt of the Group amounted to PLN 1,196,498 thousand as at 31 December 2016 and decreased in comparison to the balance as at the end of December 2015 by PLN 164,814 thousand.

### Debt instruments currently used

The Group's sources of debt financing include: issued domestic bonds, term loan, revolving credit, overdrafts as well as lease liabilities). Additional information about the management of financial resources is provided in item 4.6.

## 4.2.4 CASH POSITION OF THE CIECH GROUP

TABLE 15: CONSOLIDATED CASH FLOWS OF THE CIECH GROUP

	2016	2015	2014	Change 2016/2015
Net cash from operating activities	836,871	457,090	442,576	83.1%
Net cash from investment activities	(445,582)	(486,100)	(283,666)	8.3%
Net cash from financial activities	(177,545)	182,887	(212,580)	-
<b>Total net cash flows</b>	<b>213,744</b>	<b>153,877</b>	<b>(53,670)</b>	<b>38.9%</b>
free cash flows	391,289	(29,010)	158,910	-

In 2016, total net cash flows were positive and amounted to PLN 213,744 thousand. Compared to the same period of the previous year, the cash flows generated by the Group were higher by PLN 59,867 thousand. Cash flows from operating activities amounted to PLN 836,871 thousand and increased as compared to the same period in 2015 by PLN 379,781 thousand.

In 2016, the net cash flows from investing activities were negative, which was mainly the result of expenses for an investment programme implemented by the Group. Net cash from financing activities was negative and amounted to PLN 177,545 thousand. In comparison to 2015, they were lower by PLN 360,432 thousand. Significant difference is a result of a dividend (in the amount of PLN 150,195 thousand being paid by the CIECH S.A.'s parent company) and cash received in 2015 due to refinancing of Group's liabilities.



TABLE 16: ABILITY TO GENERATE CASH FLOWS OF THE CIECH GROUP

	2016	2015	2014
Financial surplus ((net profit/(loss) on continuing operations + depreciation)	817,610	563,727	338,269
Other adjustments to net profit/(loss) on continuing operations	(72,968)	9,710	(25)
<b>Adjusted financial surplus</b>	<b>744,642</b>	<b>573,437</b>	<b>338,244</b>
Change in working capital	92,229	(116,347)	104,332
<b>Net cash from operating activities</b>	<b>836,871</b>	<b>457,090</b>	<b>442,576</b>
Net cash from investing activities	(445,582)	(486,100)	(283,666)
<b>Free cash flow</b>	<b>391,289</b>	<b>(29,010)</b>	<b>158,910</b>

In 2016, the CIECH Group generated positive free cash flows, which means that it was able to finance its capital expenditure with cash flows generated on operating activities. The adjusted financial surplus reached the level required to contribute to generating a positive free cash flows.

#### 4.2.5 WORKING CAPITAL AND SELECTED FINANCIAL RATIOS OF THE CIECH GROUP

##### Liquidity of the CIECH Group

As at 31 December 2016, liquidity ratios decreased as compared to their levels as at 31 December 2015. The current ratio, calculated as the ratio of total current assets to total current liabilities, amounted to 1.24 as at 31 December 2016, while the quick liquidity ratio amounted to 0.95.

TABLE 17: LIQUIDITY RATIOS OF THE CIECH GROUP

	31.12.2016	31.12.2015	31.12.2014
Current ratio	1.24	1.37	0.96
Quick ratio	0.95	0.99	0.62

##### Working capital of the CIECH Group

As at the end of 2016, working capital, defined as the difference between current assets and current liabilities, adjusted by relevant balance sheet items (cash and cash equivalents and short-term loans) was positive and amounted to PLN 1,720 thousand, which is a decrease by PLN 75,022 thousand compared to the end of 2015.

TABLE 18: WORKING CAPITAL OF THE CIECH GROUP

	31.12.2016	31.12.2015*	31.12.2014
1. Current assets, including:	1,292,377	1,049,926	719,625
Inventory	299,265	293,631	257,770
Trade receivables and services and advances for deliveries	298,449	277,308	268,020
2. Cash and cash equivalents and short-term investments	474,340	253,716	49,162
<b>3. Adjusted current assets (1-2)</b>	<b>818,037</b>	<b>796,210</b>	<b>670,463</b>
4. Current liabilities, including:	1,042,886	765,742	748,679
Trade liabilities and advances taken	368,937	273,332	322,179
5. Short-term credits and other current financial liabilities**	226,569	46,274	36,452
<b>6. Adjusted current liabilities (4-5)</b>	<b>816,317</b>	<b>719,468</b>	<b>712,227</b>
<b>7. Working capital including short-term credits(1-4)</b>	<b>249,491</b>	<b>284,184</b>	<b>(29,054)</b>
<b>8. Working capital (3-6)</b>	<b>1,720</b>	<b>76,742</b>	<b>(41,764)</b>

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

\*\* Other current financial liabilities include current finance lease liabilities + current derivative liabilities + reverse factoring liabilities + factoring liabilities.

Trade working capital is the difference between current assets (trade receivables and inventory) and trade liabilities. The recorded levels of working capital and trade working capital vary due to a number of factors such as the impact of raw material prices and sales prices, the volatility of working capital related to trade activities (high-value transactions), production downtime and repair works, changes in key suppliers' payment terms, foreign exchange rates, the Group companies' decisions regarding inventory maintenance, the business operating level and the seasonal nature of operations.



In the past, the CIECH Group financed the working capital requirements from available cash, cash revenues and through active management of working capital. In order to ensure adequate financial liquidity, the Group companies have the access to a revolving credit facility and factoring limits. The Group assumes that the cash flows from operations, together with cash provisions and revolving credit facility with factoring limits will be sufficient to fund working capital requirements, anticipated capital expenditures and timely service of debt.

### The CIECH Group's profitability ratios

In 2016, profitability ratios of the CIECH Group in respect of the continuing operations were at a higher level than in 2015.

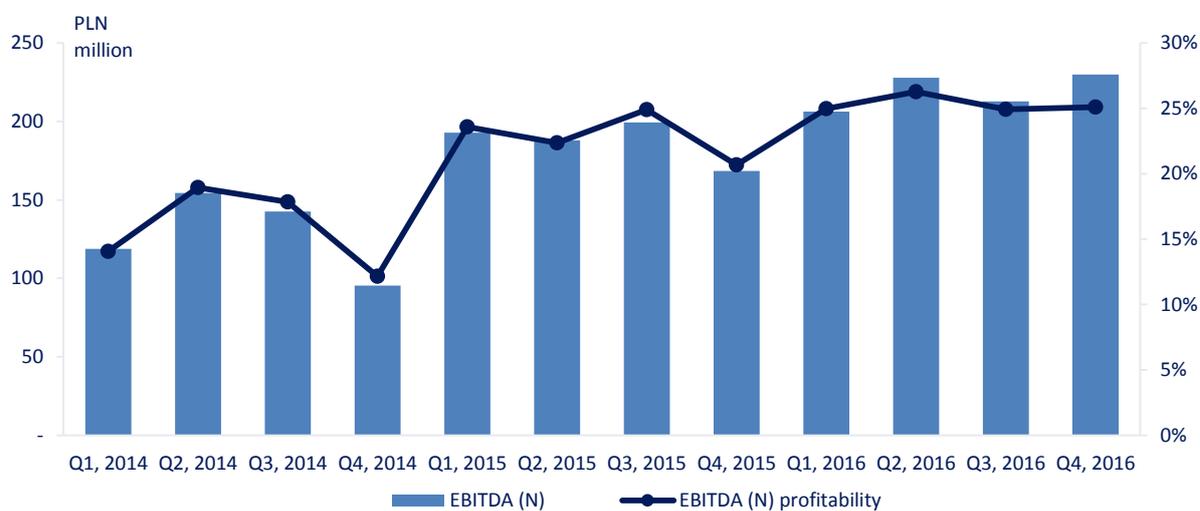
TABLE 19: THE CIECH GROUP'S PROFITABILITY RATIOS

	2016	2015*	2014	Change 2016/2015
<b>CONTINUING OPERATIONS</b>				
Gross return on sales	30.1%	26.4%	20.8%	3.6 p.p
Return on sales	18.8%	16.1%	9.7%	2.8 p.p
EBIT margin	19.1%	15.0%	9.9%	4.1 p.p
EBITDA margin	25.6%	21.6%	16.2%	4.0 p.p
Normalised EBIT margin**	18.9%	16.2%	9.5%	2.7 p.p
Normalised EBITDA margin**	25.4%	22.9%	15.8%	2.5 p.p
Net return on sales (ROS)	17.2%	10.6%	4.1%	6.6 p.p
Return on assets (ROA)	13.2%	8.8%	4.2%	4.4 p.p
Return on equity (ROE)	33.7%	25.8%	13.6%	7.9 p.p
Earnings/(loss) per share (in PLN) from continuing operations	11.26	6.51	2.55	4.75

\* Data restated. A detailed description can be found in Note 1.5 of consolidated financial statement of the CIECH Group for 2016

\*\*Principles of calculating EBITDA and normalised EBITDA have been described in section "Ratio calculation methodology".

FIGURE 38: PROFITABILITY LEVELS OF THE CIECH GROUP



EBITDA (N) – Normalised EBITDA – excluding one-off events reported in particular quarters.

### Indebtedness

The debt ratio decreased in comparison to December 2015 and amounts to 60.8%. At the same time, the relative level of net debt (net financial liabilities in relation to EBITDA) improved as compared to the end of 2015. The ratio adjusted by one-off events is at a lower level in comparison to the previous year (net financial liabilities in relation to normalised EBITDA).



TABLE 20: CIECH GROUP'S DEBT RATIOS

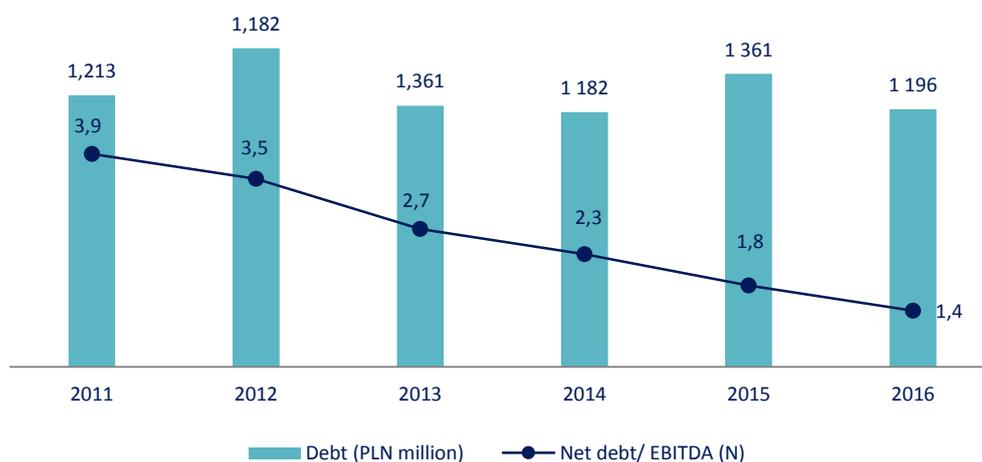
	31.12.2016	31.12.2015*	31.12.2014	Change 2016/2015
Debt ratio	60.8%	66.0%	69.3%	(5.2) p.p.
Long term debt ratio	37.7%	46.7%	45.9%	(9.0) p.p.
Debt to equity ratio	155.3%	194.5%	225.3%	(39.2) p.p.
Equity to assets ratio	39.2%	34.0%	30.7%	5,2 p.p.
Gross debt	1,610,867	1,564,247	1,231,913	3.0%
Net debt	1,196,498	1,361,312	1,182,751	(12.1%)
EBITDA annualized*	883,794	707,538	526,302	24.9%
EBITDA normalised (annualised)	876,832	748,456	511,126	17.2%
Net debt / EBITDA annualized	1.4	1.9	2.2	(29.6%)
Net debt / EBITDA normalised (annualised)**	1.4	1.8	2.3	(25.0%)
Gross debt / EBITDA annualised	1.8	2.2	2.3	(17.6%)
Gross debt / EBITDA normalised (annualised)**	1.8	2.1	2.4	(12.1%)

\* Data restated. A detailed description can be found in Note 1.5 of the consolidated financial statement of the CIECH Group for 2016

\*\* Principles of calculating EBITDA and normalised EBITDA have been described in section "Ratio calculation methodology".

The CIECH Group is consistently reducing its net debt in relation to normalised EBITDA. The strategic objective is to achieve the net debt to EBITDA ratio below 1.0 in 2019.

FIGURE 39: DEBT OF THE CIECH GROUP (IN PLN MILLION) AND NET DEBT/EBITDA (N) RATIO



#### 4.2.6 GROUP'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2016

TABLE 21: CIECH GROUP'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2016

	01.10.-31.12.2016*	01.10.-31.12.2015*	01.10.-31.12.2014*
<b>CONTINUING OPERATIONS</b>			
Sales revenues	907,802	814,171	786,161
Cost of sales	(626,987)	(600,600)	(651,988)
<b>Gross profit/(loss) on sales</b>	<b>280,815</b>	<b>213,571</b>	<b>134,173</b>
Other operating income	30,186	21,271	62,859
Selling costs	(61,664)	(50,214)	(52,098)
General and administrative expenses	(51,743)	(48,990)	(40,344)
Other operating expenses	(35,480)	(26,189)	(13,396)
<b>Operating profit/(loss)</b>	<b>162,114</b>	<b>109,449</b>	<b>91,194</b>
Financial income	14,465	705	3,103
Financial expenses	(20,384)	(123,723)	(31,498)



	01.10.-31.12.2016*	01.10.-31.12.2015*	01.10.-31.12.2014*
<b>Net financial income/(expenses)</b>	<b>(5,919)</b>	<b>(123,018)</b>	<b>(28,395)</b>
Share of profit / (loss) of equity-accounted investees	246	88	(21)
<b>Profit/(loss) before tax</b>	<b>156,441</b>	<b>(13,481)</b>	<b>62,778</b>
Income tax	17,808	101,371	(794)
<b>Net profit/(loss) on continuing operations</b>	<b>174,249</b>	<b>87,890</b>	<b>61,984</b>
<b>DISCONTINUED OPERATIONS</b>	-	-	-
Net profit/(loss) on discontinued operations	-	-	49,725
<b>Net profit / (loss) for the year</b>	<b>174,249</b>	<b>87,890</b>	<b>111,709</b>
including:			
Net profit/(loss) attributable to shareholders of the parent company	174,014	87,729	111,004
Net profit/(loss) attributed to non-controlling interest	235	161	705
<b>Earnings per share (in PLN):</b>			
Basic	3.30	1.66	2.11
Diluted	3.30	1.66	2.11

\* Unaudited data

The results in Q4 2016 were mainly impacted by the continuation of a positive trend in the result in the soda segment, result of pre-season sales in the organic segment, the external debt service cost, change in provisions for liabilities and creating assets for deferred tax.

#### 4.3 REVIEW OF KEY ECONOMIC AND FINANCIAL FIGURES CONCERNING CIECH S.A.

During 2016, CIECH S.A. generated net profit from continuing operations of PLN 152,441 thousand, net cash increased by PLN 170,172 thousand and total assets as at the end of 2016 amounted to PLN 3,599,972 thousand.

##### Forecast performance of the CIECH S.A.

CIECH S.A. did not publish any forecasts for 2016.

##### 4.3.1 STATEMENT OF PROFIT OR LOSS OF CIECH S.A.

TABLE 22: STATEMENT OF PROFIT OR LOSS OF CIECH S.A.

	2016	2015*	2014*	Change 2016/2015
<b>CONTINUING OPERATIONS</b>				
<b>Sales revenues</b>	<b>2,193,357</b>	<b>2,038,491</b>	<b>1,655,739</b>	<b>7.6%</b>
Cost of sales	(1,651,553)	(1,592,087)	(1,308,071)	(3.7%)
<b>Gross profit/(loss) on sales</b>	<b>541,804</b>	<b>446,404</b>	<b>347,668</b>	<b>21.4%</b>
Selling costs	(167,804)	(145,914)	(153,249)	(15.0%)
General and administrative expenses	(68,524)	(64,755)	(49,871)	(5.8%)
Other operating income/expense	(4,702)	79,490	(12,422)	-
<b>Operating profit/(loss)</b>	<b>300,774</b>	<b>315,225</b>	<b>132,126</b>	<b>(4.6%)</b>
Net financial income/expenses	(106,096)	(36,693)	(76,419)	(189.1%)
Income tax	(42,237)	53,046	(22,246)	-
<b>Net profit/(loss) on continuing operations</b>	<b>152,441</b>	<b>331,578</b>	<b>33,461</b>	<b>(54.0%)</b>
<b>DISCONTINUED OPERATIONS</b>				
Net profit/(loss) on discontinued operations	-	-	58,668	-
<b>Net profit / (loss)</b>	<b>152,441</b>	<b>331,578</b>	<b>92,129</b>	<b>(54.0%)</b>
EBITDA from continuing operations	305,422	319,132	138,992	(4.3%)
Normalised EBITDA from continuing operations**	310,404	327,913	140,855	(5.3%)

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

\*\*Principles of calculating EBITDA and normalised EBITDA have been described in section "Ratio calculation methodology".



## Sales revenues

Net sales revenues net from continuing operations of CIECH S.A. for 2016 amounted to PLN 2,193,357 thousand. Compared to the previous year, revenues increased by PLN 154,866 thousand (i.e. by 7.6%). The changes were mainly due to market factors.

The positive contributors to the presented sales revenues were as follows:

- increase in soda prices, strengthening of USD in relation to PLN and RON,
- higher soda sales volumes;
- price competitiveness of European producers of soda in relation to imports from North America.

The negative contributors to the presented sales revenues were as follows:

- lower sales volumes of raw materials for the production of plastics and plant protection products.

TABLE 23: CIECH'S SALES DIVIDED INTO OPERATING SEGMENTS

CIECH'S SALES DIVIDED INTO OPERATING SEGMENTS	2016	2015*	2014*	Change 2016/2015	% of total revenues in 2016
<b>Soda segment, including:</b>	<b>1,772,601</b>	<b>1,595,087</b>	<b>1,401,834</b>	<b>11.1%</b>	<b>80.9%</b>
Dense soda ash	1,061,175	922,851	794,217	15.0%	48.4%
Light soda ash	387,534	374,043	309,625	3.6%	17.7%
Salt	180,185	169,337	166,295	6.4%	8.2%
Baking soda	98,829	90,048	92,076	9.8%	4.5%
Calcium chloride	15,144	12,388	21,019	22.2%	0.7%
Other goods and services	29,734	26,420	18,602	12.5%	1.4%
<b>Organic segment, including:</b>	<b>392,897</b>	<b>429,057</b>	<b>73,443</b>	<b>(8.4%)</b>	<b>18.0%</b>
Raw materials for production of plant protection products	70,345	72,381	459	(2.8%)	3.2%
Raw materials for production of plastics	198,899	234,911	-	(15.3%)	9.1%
Raw materials for the production of polyurethane foams	115,513	113,757	17,260	1.5%	5.3%
Other goods and services	8,140	8,008	55,724	1.6%	0.4%
<b>Silicates and Glass segment, including:</b>	<b>15,192</b>	<b>11,501</b>	<b>179,961</b>	<b>32.1%</b>	<b>0.6%</b>
Soda silicates	14,103	10,768	13,918	31.0%	0.6%
Other goods and services	1,089	733	166,043	48.6%	0.0%
<b>Transport segment, including:</b>	<b>9,169</b>	<b>575</b>	<b>54</b>	<b>1494.6%</b>	<b>0.4%</b>
Transport services	9,169	575	54	1494.6%	0.4%
<b>Other segment, including:</b>	<b>3,498</b>	<b>2,271</b>	<b>447</b>	<b>54.0%</b>	<b>0.1%</b>
Other goods and services	3,498	2,271	447	54.0%	0.1%
<b>TOTAL</b>	<b>2,193,357</b>	<b>2,038,491</b>	<b>1,655,739</b>	<b>7.6%</b>	<b>100.0%</b>

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

### CIECH S.A.'s sales in the soda segment

Sales in the soda segment for the year ended 31 December 2016 amounted to PLN 1,772,601 thousand, which is an increase by PLN 177,514 thousand, compared to sales revenues for the year ended 31 December 2015 of PLN 1,595,087 thousand. This increase was due mainly to a higher product sales volume and increase in soda prices.

### CIECH S.A.'s sales in the organic segment

Sales in the organic segment for the year ended 31 December 2016 amounted to PLN 392,897 thousand, which is a decrease by PLN 36,160 thousand, compared to sales revenues for the year ended 31 December 2015 of PLN 429,057 thousand. The decrease resulted from lower sales of raw materials for the production of plastics and plant protection products.

### CIECH S.A.'s sales in the silicates and glass segment

Sales in the silicates and glass segment for the year ended 31 December 2016 amounted to PLN 15,192 thousand, which is an increase by PLN 3,691 thousand, compared to sales revenues for the year ended 31 December 2015 of PLN 11,501 thousand. The increase resulted primarily from higher sales of sodium silicates produced by CIECH Soda Romania S.A.

### Cost of sales

Cost of goods sold for the year ended 31 December 2016 amounted to PLN 1,651,553 thousand, which is an increase by PLN 59,466 thousand (3.7%) compared to PLN 1,592,087 thousand in the cost of goods sold in 2015. The increase was caused by higher soda sales volume.

### Gross sales result

TABLE 24: GROSS SALES RESULTS DIVIDED INTO OPERATING SEGMENTS OF CIECH S.A.

	2016	2015*	2014*	Change 2016/2015
Soda segment	530,741	436,676	311,315	21.5%
Organic segment	9,178	8,834	1,803	3.9%
Silicates and glass segment	1,108	582	34,518	90.4%
Transport segment	235	27	2	770.4%
Other	542	285	30	90.2%
<b>Gross profit /(loss) on sales</b>	<b>541,804</b>	<b>446,404</b>	<b>347,668</b>	<b>21.4%</b>

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

### Soda segment

The gross profit on sales in the soda segment for the year ended 31 December 2016 amounted to PLN 530,741 thousand compared to PLN 436,676 thousand for the year ended 31 December 2015. This increase was due mainly to a higher product sales volume and increase in soda prices.

### Organic segment

The gross profit on sales in the organic segment for the year ended 31 December 2016 amounted to PLN 9,178 thousand compared to PLN 8,834 thousand for the year ended 31 December 2015. The increase is caused by intra-group purchases of raw materials for CIECH Sarzyna S.A. and CIECH Pianki S.A. which occurred throughout the year.

### Silicates and Glass segment

The gross profit on sales in the silicates and glass segment for the year ended 31 December 2016 amounted to PLN 1,108 thousand compared to PLN 582 thousand for the year ended 31 December 2015.

### Operating result

Other operating income for 2016 amounted to PLN 3,387 thousand which represents a decrease by PLN 82,974 thousand compared to the amount of PLN 86,361 thousand for 2015. The decrease in other operating income was mainly caused by higher income in 2015 due to reversal of revaluation write-downs on receivables.

Selling costs for 2016 amounted to PLN 167,804 thousand which represents an increase by PLN 21,890 thousand (i.e. by 15.0%), compared to PLN 145,914 thousand in 2015.

General and administrative expenses for 2016 amounted to PLN 68,524 thousand which is an increase by PLN 3,769 thousand (i.e. by 5.8%) as compared to PLN 64,755 thousand in 2015. The increase in general and administrative expenses results from the fact of taking over corporate functions from the capital group companies.

Other operating expenses for 2016 amounted to PLN 8,089 thousand which represents a decrease from 2015, when these expenses amounted to PLN 6,871 thousand – i.e. a decline by PLN 1,218 thousand.

Operating profit for 2016 reached PLN 300,774 thousand, while in the comparable period it amounted to PLN 315,225 thousand.

### Financing activities and net profit/loss

Financial income for 2016 amounted to PLN 190,327 thousand and recorded a decrease from the preceding year, when it amounted to PLN 309,744 thousand. Financial expenses for 2016 amounted to PLN 296,423 thousand and recorded a decline as compared to the preceding year, when they amounted to PLN 346,437 thousand.

The financing activities were negatively impacted by high costs of debt services and losses on valuation of derivatives. The most negative impact on financing activities result was caused by write-offs of CIECH S.A. involvement in subsidiaries, in total amount of PLN 180,850 thousand. The negative impact of financial expenses was partially offset by the amount of dividend income.

The individual net profit for 2016 amounted to PLN 152,441 thousand. This result was influenced mainly by operating profit partially offset by negative result from the financing activities (the main negative factor were write-offs of CIECH S.A. involvement in subsidiaries and the external debt service cost). The net result of CIECH S.A. was also negatively impacted by income tax in the amount of PLN 42,237 thousand.

### EBITDA<sup>3</sup>

TABLE 25: EBITDA OF CIECH S.A. FOR 2016

	2016	2015	2014	Change 2016/2015
Net profit/(loss) on continuing operations	152,441	331,578	33,461	(54.0%)
Income tax	42,237	(53,046)	22,246	-
Financial expenses	296,423	346,437	303,820	(14.4%)
Financial income	(190,327)	(309,744)	(227,401)	38.6%
Amortisation/depreciation	4,648	3,907	6,866	19.0%
<b>EBITDA from continuing operations</b>	<b>305,422</b>	<b>319,132</b>	<b>138,992</b>	<b>(4.3%)</b>

EBITDA from continuing operations in the year ended 31 December 2016 amounted to PLN 305,422 thousand, which represents a decrease by PLN 13,710 thousand, compared to PLN 319,132 thousand for the year ended 31 December 2015. The decrease in EBITDA resulted primarily from increased selling costs and increased general and administrative expenses, as well as from lower balance of other operating activities.

### Normalised EBITDA<sup>4</sup>

TABLE 26: NORMALISED EBITDA OF CIECH S.A.

	01.01.-31.12.2016	01.01.-31.12.2015	01.01.-31.12.2014
<b>EBITDA from continuing operations</b>	<b>305,422</b>	<b>319,132</b>	<b>138,992</b>
One-offs including:	4,982	8,781	1,863
Cash items (a)	547	(1,837)	(9)
Non-cash items (without impairment) (b)	4,435	10,618	1,872
<b>Normalised EBITDA from continuing operations</b>	<b>310,404</b>	<b>327,913</b>	<b>140,855</b>

(a) Cash items include, among others, profit/loss of the sale of property, plant and equipment and other items (including costs associated with discontinued operations, fees and compensations).

(b) Non-cash items include: result on sales of property, plant and equipment, the costs of suspended investments, provisions for liabilities and compensation and other items (including extraordinary costs and other provisions).

<sup>3</sup> EBITDA is the net profit/loss for a financial year plus income tax plus costs/financial income plus profit/loss on sale of a discontinued operation plus amortisation. EBITDA is not a liquidity ratio or business performance ratio calculated in accordance with IFRS. EBITDA should be viewed as a supplement not as a substitute for the business performance presented in accordance with IFRS. EBITDA is a useful ratio of the ability to incur and serve debt. EBITDA and similar ratios are used by different companies for different purposes and are often calculated in a manner adapted to the conditions in which these companies exist. Care needs to be exercised when comparing EBITDA with EBITDA of other companies.

<sup>4</sup> Normalised EBITDA is another additional ratio of business performance. Normalised EBITDA is EBITDA adjusted for costs/revenues that were classified by the management as one-off due to their nature. We believe that normalised EBITDA is an important ratio when estimating and measuring the Company's recurring business performance. Other companies may calculate normalised EBITDA in a manner different from the manner applied by CIECH S.A. Normalised EBITDA is not a measure of financial performance under IFRS and is therefore not audited. It should not be used as a ratio of liquidity or as an alternative to operating profit or net profit for a year or as another measure of results calculated in accordance with IFRS.

#### 4.3.2 ASSET POSITION OF CIECH S.A.

TABLE 27: SELECTED BALANCE SHEET DATA OF CIECH S.A.

	31.12.2016	31.12.2015*	31.12.2014	Change 2016/2015
<b>Total assets</b>	<b>3,599,972</b>	<b>3,268,739</b>	<b>2,573,983</b>	<b>10.1%</b>
Total non-current assets	2,593,182	2,526,919	2,141,401	2.6%
Total current assets	1,006,790	741,820	432,582	35.7%
Inventory	37,450	19,673	21,773	90.4%
Current receivables	394,711	331,991	282,156	18.9%
Cash and cash equivalents	342,607	174,745	10,261	96.1%
Short-term financial assets	232,022	215,411	118,392	7.7%
<b>Total equity</b>	<b>1,296,766</b>	<b>1,297,223</b>	<b>961,858</b>	<b>(0.04%)</b>
Total non-current liabilities	1,467,349	1,578,807	1,180,992	(7.1%)
Total current liabilities	835,857	392,709	431,133	112.8%

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

##### Assets

As at the end of 2016, the CIECH S.A.'s non-current assets amounted to PLN 2,593,182 thousand. As compared to the balance as at 31 December 2015, the value of non-current assets increased by PLN 66,263 thousand. This change is related primarily to an increase in long-term financial assets, in the item of loans granted to the CIECH Group companies.

CIECH S.A.'s current assets amounted to PLN 1,006,790 thousand as at 31 December 2016. The largest components of non-current assets included: current receivables accounting for 39.2%, short-term financial assets accounting for 23.0% as well as cash and cash equivalents accounting for 34.0% of total current assets. Compared to the end of December 2015, the value of current assets increased by PLN 264,970 thousand. This increase results from an increase in cash, increase in receivables following higher sales revenues in the soda segment due to increase in prices, and from an increase in short-term financial assets resulting from loans granted, as well as from the measurement of derivative instruments.

##### Liabilities

As at 31 December 2016, liabilities (non-current and current) of CIECH S.A. amounted to PLN 2,303,206 thousand, which is an increase compared to the end of December 2015 by PLN 331,690 thousand.

The debt ratio amounted to 64.0% as at 31 December 2016 (at the end of December 2015 to 60.3%). The individual net debt of CIECH S.A. amounted to PLN 1,289,278 thousand as at 31 December 2016 and decreased in comparison to the balance as at the end of December 2015 by PLN 92,409 thousand.

##### Capital resources and debt instruments

The sources of liquidity include cash flows generated from operating activities, cash from the sale of assets, cash available due to the revolving credit facility agreement and overdraft. The Company also uses factoring agreements.

##### Debt instruments currently used

The sources of debt financing of CIECH S.A. include: issued domestic bonds, term loan, revolving credit.

#### 4.3.3 CASH POSITION OF CIECH S.A.

TABLE 28: CASH POSITION OF CIECH S.A.

	2016	2015*	2014	Change 2016/2015
Net cash from operating activities	344,602	56,987	60,031	504.7%
Net cash from investment activities	(86,973)	(186,185)	48,850	53.3%
Net cash from financial activities	(87,457)	293,785	(146,360)	-
<b>Total net cash flows</b>	<b>170,172</b>	<b>164,587</b>	<b>(37,479)</b>	<b>3.4%</b>

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016



In 2016, total net cash flows were positive and amounted to PLN 170,172 thousand. Compared to the same period of the previous year, the cash flows generated by CIECH S.A. were higher by PLN 5,585 thousand. The cash flows from operating activities amounted to PLN 344,602 thousand and increased by PLN 287,615 thousand as compared to the same period in 2015.

In 2016, the net cash flows from investing activities were negative. The surplus of investment outflows over investment inflows amounted to PLN 86,973 thousand. The excess of loans granted over total repayments of these loans had the main impact on net cash flows from investment activities. The amount of cash flows from loans granted/repaid was partially offset by dividends received in the amount of PLN 157,423 thousand.

Net cash from financing activities was negative and amounted to PLN 87,457 thousand. In comparison to the same period in 2015, they were lower by PLN 381,242 thousand (in 2015, the Company recorded high inflows due to debt refinancing).

#### Ability to generate cash flows

In 2016, CIECH S.A. generated positive free cash flows, which means that it was able to finance its capital expenditure with cash flows generated on operating activities. The adjusted financial surplus reached the level required to contribute to generating a positive free cash flows.

TABLE 29: ABILITY TO GENERATE CASH FLOWS

	01.01.-31.12.2016	01.01.-31.12.2015*	01.01.-31.12.2014
Financial surplus ((net profit/(loss) on continuing operations + depreciation)	157,089	335,485	98,995
Other adjustments to net profit/(loss) on continuing operations	105,228	(161,141)	(103,876)
<b>Adjusted financial surplus</b>	<b>262,317</b>	<b>174,344</b>	<b>(4,881)</b>
Change in working capital	82,285	(117,357)	64,912
<b>Net cash from operating activities</b>	<b>344,602</b>	<b>56,987</b>	<b>60,031</b>
Net cash from investing activities	(86,973)	(186,185)	48,850
<b>Free cash flow</b>	<b>257,629</b>	<b>(129,198)</b>	<b>108,881</b>

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

#### 4.3.4 WORKING CAPITAL AND SELECTED FINANCIAL RATIOS OF CIECH S.A.

##### Profitability ratios of CIECH S.A.

In 2016, profitability ratios of CIECH S.A. in respect of continuing operations were at a lower level than in 2015.

TABLE 30: PROFITABILITY RATIOS OF CIECH S.A.

	01.01.-31.12.2016	01.01.-31.12.2015*	01.01.-31.12.2014*	Change 2016/2015
<b>CONTINUING OPERATIONS</b>				
Gross return on sales	24.7%	21.9%	21.0%	2.8 p.p
Return on sales	13.9%	11.6%	8.7%	2.3 p.p
EBIT margin	13.7%	15.5%	8.0%	(1.8 p.p)
EBITDA margin	13.9%	15.7%	8.4%	(1.8 p.p)
Normalised EBIT margin**	13.9%	15.9%	8.1%	(2.0 p.p)
Normalised EBITDA margin**	14.2%	16.1%	8.5%	(1.9 p.p)
Net return on sales (ROS)	7.0%	16.3%	2.0%	(9.3 p.p)
Return on assets (ROA)	4.2%	10.1%	1.3%	(5.9 p.p)
Return on equity (ROE)	11.8%	25.6%	3.5%	(13. p.p)
Earnings/(loss) per share (in PLN) from continuing operations	2.89	6.29	0.64	(3.40)

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

\*\* Principles of calculating EBITDA and normalised EBITDA have been described in section "Ratio calculation methodology".



### Liquidity of CIECH S.A. and working capital

As at 31 December 2016, liquidity ratios decreased as compared to their levels as at 31 December 2015. The current ratio, calculated as the ratio of total current assets to total current liabilities, amounted to 1.20 as at 31 September 2016, while the quick liquidity ratio amounted to 1.16.

TABLE 31: LIQUIDITY RATIOS OF CIECH S.A.

	31.12.2016	31.12.2015	31.12.2014
Current ratio	1.20	1.89	1.00
Quick ratio	1.16	1.84	0.95

### Working capital of CIECH S.A.

As at the end of 2016, working capital, defined as the difference between current assets and current liabilities, adjusted by relevant balance sheet items (cash and cash equivalents and short-term loans) was negative and amounted to PLN 34,400 thousand, which is a decrease by PLN 119,947 thousand compared to the end of 2015.

TABLE 32: WORKING CAPITAL OF CIECH S.A.

	31.12.2016	31.12.2015*	31.12.2014
1. Current assets, including:	1,006,790	741,820	432,582
Inventory	37,450	19,673	21,773
Trade receivables and services and advances for deliveries	314,853	276,117	214,827
2. Cash and cash equivalents and short-term investments	574,629	390,156	128,653
<b>3. Adjusted current assets (1-2)</b>	<b>432,161</b>	<b>351,664</b>	<b>303,929</b>
4. Current liabilities, including:	835,857	392,709	431,133
Trade liabilities and advances taken	385,404	201,393	273,655
5. Short-term credits and other current financial liabilities**	369,296	126,592	96,836
<b>6. Adjusted current liabilities (4-5)</b>	<b>466,561</b>	<b>266,117</b>	<b>334,297</b>
<b>7. Working capital including short-term credits(1-4)</b>	<b>170,933</b>	<b>349,111</b>	<b>1,449</b>
<b>8. Working capital (3-6)</b>	<b>(34,400)</b>	<b>85,547</b>	<b>(30,368)</b>

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

\*\* Other current financial liabilities include: derivatives liabilities+ factoring liabilities

Trade working capital is the difference between current assets (trade receivables and inventory) and trade liabilities. The recorded levels of working capital and trade working capital vary due to a number of factors such as the impact of raw material prices and sales prices, the volatility of working capital related to trade activities (high-value transactions), production downtime and repair works, changes in key suppliers' payment terms, foreign exchange rates, the Company's decisions regarding inventory maintenance, the business operating level and the seasonal nature of operations.

In the past, CIECH S.A. financed the working capital requirements from available cash, cash revenues and through active management of working capital. In order to ensure adequate financial liquidity, CIECH S.A. has the access to a revolving credit facility and factoring limits. The Company assumes that the cash flows from operations, together with cash provisions and revolving credit facility with factoring limits will be sufficient to fund working capital requirements, anticipated capital expenditures and timely service of debt.

### Indebtedness

In 2016, the debt ratio increased in comparison to December 2015 and amounts to 64.0%.

TABLE 33: THE CIECH S.A. DEBT RATIO

	31.12.2016	31.12.2015*	31.12.2014	Change 2016/2015 (p.p.)
Debt ratio	64.0%	60.3%	62.6%	3.7 p.p
Long term debt ratio	40.8%	48.3%	45.9%	(7.5 p.p)
Debt to equity ratio	177.6%	152.0%	167.6%	25.6 p.p
Equity to assets ratio	36.0%	39.7%	37.4%	(3.7 p.p)

\* Data restated. A detailed description can be found in Note 1.5 of the financial statement of CIECH S.A. for 2016

4.3.5 CIECH S.A.'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2016TABLE 34: CIECH S.A. 'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2016

	01.10.-31.12.2016*	01.10.-31.12.2015*	01.10.-31.12.2014*
<b>CONTINUING OPERATIONS</b>			
Sales revenues	577,614	515,017	439,842
Cost of sales	(441,604)	(388,485)	(349,100)
<b>Gross profit/(loss) on sales</b>	<b>136,010</b>	<b>126,532</b>	<b>90,742</b>
Other operating income	1,196	675	12,826
Selling costs	(45,304)	(38,473)	(30,161)
General and administrative expenses	(23,888)	(27,545)	(14,060)
Other operating expenses	(4,828)	(1,273)	(6,265)
<b>Operating profit/(loss)</b>	<b>63,186</b>	<b>59,916</b>	<b>53,082</b>
Financial income	(4,816)	108,543	161,247
Financial expenses	(213,298)	(213,137)	(180,488)
<b>Net financial income/(expenses)</b>	<b>(218,114)</b>	<b>(104,594)</b>	<b>(19,241)</b>
Share of profit / (loss) of equity-accounted investees	-	-	-
<b>Profit/(loss) before tax</b>	<b>(154,928)</b>	<b>(44,678)</b>	<b>33,841</b>
Income tax	(7,903)	28,201	(28,349)
<b>Net profit/(loss) on continuing operations</b>	<b>(162,831)</b>	<b>(16,477)</b>	<b>5,492</b>
<b>DISCONTINUED OPERATIONS</b>	-	-	-
Net profit/(loss) on discontinued operations	-	-	49,725
<b>Net profit / (loss)</b>	<b>(162,831)</b>	<b>(16,477)</b>	<b>55,217</b>
including:			
Net profit/(loss) attributable to shareholders of the parent company	(162,831)	(16,477)	55,217
Net profit/(loss) attributed to non-controlling interest	-	-	-
<b>Earnings per share (in PLN):</b>			
Basic	(3.09)	(0.31)	1.05
Diluted	(3.09)	(0.31)	1.05

\*Unaudited data

The results in the 4<sup>th</sup> quarter of 2016 were mainly impacted by write-offs of CIECH S.A. involvement in subsidiaries, the external debt service cost and recognition of additional provisions for liabilities.

## 4.4 INVESTING ACTIVITIES OF THE CIECH GROUP

**Investments implemented in 2016**

The CIECH Group has and constantly updates its capital expenditure program for production facilities in order to develop or maintain the current levels of production in particular plants and to fulfil the conditions related to customers' requirements and new legal regulations. The capital expenditures are also necessary in relation to modernisation of old equipment and energy efficiency improvement as well as to the increase the production capacity by elimination of bottlenecks or in relation to improvement of the automation and control process.

Investment expenditures incurred by the CIECH Group companies in 2016 amounted to approx. PLN 490 million. The main investment expenditures of Companies were used for the implementation of several large-scale projects, including the extension and modernisation of plants in the soda segment such as intensification of soda ash production and intensification of dry salt production. Furthermore, CIECH Soda Polska S.A. continued the implementation of large projects relating to development of flue gas desulphurisation and denitrification systems in own CHP plants. Other investment expenditures were used mainly in relation to modernisation and replacement projects which aim at improving and retaining the production capacity as well as improving the effectiveness of our plants. Decisions relating to executing investment projects are made on the basis of a business plan and such indicators of investment effectiveness as: the internal rate of return, net present value and payback period.

Key projects implemented in 2016 are presented below:

TABLE 35: KEY INVESTMENT PROJECTS OF THE CIECH GROUP IMPLEMENTED IN 2016

	Investment project	Implementation status
	<p><b>Soda ash +200</b></p> <p>Intensification of soda ash production by 200 thousand tonnes per year to the level of 800 thousand tonnes per year in Soda Polska CIECH S.A. The project covered a comprehensive renovation and expansion of existing production hubs, which resulted in an increase in production capacities by more than 30%.</p>	Project completed.
	<p><b>Monohydrate soda +100</b></p> <p>Investment project allowing for conversion of higher volumes of light soda into dense soda. The aim of the project was to adapt the production capacities to needs of the market, where the light soda and, to some extent, dense compacted soda is replaced by dense monohydrate soda. The project covered an alteration of the crystallisation and drying centre and modification of the transport system.</p>	Project completed.
	<p><b>Filtration of post-soda lime suspension</b></p> <p>The aim of the project is to secure the continuity of soda and salt production process through rational utilization of the post-soda lime storage capacity.</p>	Project at an advance phase, prepared for the start-up stage.
	<p><b>Calcium chloride</b></p> <p>The aim of the project is to improve the quality of calcium chloride and increase the sales volume of this high-quality product.</p>	Project completed.
	<p><b>Salt</b></p> <p>As part of continued development of the salt business in 2016, further investment projects were completed, resulting in increased production capacities and development of product packaging methods in line with the needs of the market.</p>	The stage of increasing production capacities has been completed.
	<p><b>Development investments in the Soda segment</b></p> <p>In CIECH Soda Polska S.A., development investments are focused primarily on projects aimed at improving the quality of soda produced, which will ultimately translate into significantly higher sales margin.</p>	A package of development projects under preparation and implementation.
	<p><b>Construction of the installation for treatment of flue gas</b></p> <p>Based on the latest technologies, an investment project is implemented involving the construction of the installation for desulphurisation and denitrification of flue gas, and improvement of efficiency of the dust removal process in CHP plants in Inowroclaw and Janikowo. As a result, both plants will meet the highest possible environmental standards for air emissions.</p> <ul style="list-style-type: none"> <li>• Construction of flue gas denitrification plant – CHP Inowroclaw</li> <li>• Construction of flue gas denitrification plant – CHP Janikowo</li> <li>• Construction of flue gas desulphurisation plant – CHP Inowroclaw</li> <li>• Construction of flue gas desulphurisation plant – CHP Janikowo.</li> </ul>	All four projects are currently being implemented. The investment package is expected to be completed in the 4 <sup>th</sup> quarter of 2018.
	<p><b>Furnace for sodium silicate production</b></p> <p>This project included the replacement of a worn out glass furnace, with a modern end-fired glass furnace with more than twice the performance. The project also included the extension of the batch plant, extension of the raw material warehouse and finished product storage site, as well as replacement of batch transporters.</p>	The installation was commissioned.
	<p><b>Construction of a warehouse for long PUR foam blocks</b></p> <p>In 2016, CIECH Pianki S.A. commenced the implementation of the long block warehouse construction project. This will allow for increasing production capacity, extending the product portfolio and improving the efficiency of production and logistics processes.</p>	The project implementation has been commenced.

### Capital expenditures planned for the upcoming 12 months

The investment expenditure plan of the CIECH Group for 2017 assumes the implementation of the above project, implementation of further development investments, including implementation of a number of R&D activities aimed at improving the efficiency of plants and introducing state-of-the-art products being a response to growing needs of the market. Moreover, the basic investment plan of the Group for 2017 includes the implementation of modernisation and replacement investments needed to maintain the current production infrastructure. The plan includes also the continuation of environmental investment projects focused on adjusting the Group's industrial facilities to the changing legal requirements, especially those considering industrial emissions (Industrial Emissions Directive).

Moreover, the CIECH Group has prepared a package of optional development projects. The implementation of these projects will depend on business decisions taken on an individual basis.

### Evaluation of the ability to complete investment plans in relation to owned assets

The CIECH Group's investment policy was adapted to the current ability to acquire capital so that it fully covers the planned material and capital investment.

The sources of financing of investing activities in the CIECH Group are as follows:

- cash flows from operating activities,
- external sources of funding in the form of bank loans and issued bonds,
- external sources of funding in the form of European Union funds.

## 4.5 STATE AID USED

The CIECH Group, as a leader of the Polish chemical market, keeps track of emerging market trends and continues to invest in innovative solutions and technologies. R&D activities are an important tool supporting the development of the CIECH Group and contributing to its growth. Continued increase in expenditure on R&D activities is possible owing to, among others, the involvement of public funds in the implementation of the most innovative and risky undertakings.

In 2016 alone, in connection with the implementation of R&D projects as part of the "Intelligent Development" Operational Programme for 2014-2020, the CIECH Group companies concluded co-financing agreement for the total amount of co-financing of PLN 25.7 million. The R&D projects implemented enable the creation of the CIECH Group's value through the increase of innovation and introduction of new and improved products on the market, and the continued growth contributes to the building of a knowledge-based economy and improving the position of Poland in innovation rankings.

Also investment projects in the production area are implemented with the participation of funds provided by the State Budget. In connection with the fulfilment, as at the end of August 2016, of conditions specified in the Permit No 126/PSSE dated 23 May 2014 for carrying out business activities in the Pomeranian Special Economic Zone, CIECH Soda Polska S.A. started to take advantage of its exemption from the corporate income tax. The amount of CIT unpaid in 2016 was PLN 5.1 million. In December 2016, the area of CIECH Vitrosilicon S.A.'s Plant in Żary was covered by the status of the Kostrzyn and Słubice Special Economic Zone. The implementation of the above investment projects is consistent with the CIECH Group's strategy that assumes strengthening of the Group's position in the key business areas and expanding the product range for customers.

## 4.6 FINANCIAL RESOURCE MANAGEMENT

### 4.6.1 EXTERNAL DEBT FINANCING OF THE GROUP

#### Debt financing of the Group

Debt financing of the Group in the form of bonds and loans is composed of:

- Domestic bonds issued by CIECH S.A. – as at 31 December 2016 the nominal debt amounted to PLN 160,000 thousand
- Loans are granted to CIECH S.A. pursuant to the loans agreement of 29 October 2015:
  - term loan in the amount of PLN 1,045,031 thousand and EUR 69,673 thousand (the total amount of the loan as at 31 December 2016 was PLN 1,353,264 thousand),

- revolving credit facility granted to CIECH S.A. in the amount of up to PLN 250,000 thousand (the amount of used credit as at 31 December 2016 was PLN 0).

### Domestic Bonds

Domestic Bonds were issued on 5 December 2012 for the total principal amount of PLN 320 million, PLN 160 million was early repaid on 5 June 2014.

### General information

The Domestic Bonds have a 5 year maturity. The series of bonds with a total nominal value of PLN 160,000 thousand without the option of early redemption of the bonds by CIECH S.A., with maturity date on 5 December 2017, remains outstanding.

Domestic bonds are secured by means of a common package of securities shared between the creditors, e.g. domestic bonds and creditors being parties to a loan agreement, pursuant to the principles specified in the Intercreditor Agreement. Only those holders of the Domestic Bonds who enter into the Intercreditor Agreement will benefit from the security as well as the rights and obligations under the Intercreditor Agreement.

### Coupon

The interest rate of the Domestic Bonds is the sum of the margin of 490 basis points and the semi-annual WIBOR rate (as defined in the terms of Domestic Bonds). Interest for Domestic Bonds is payable in semi-annual periods.

### Conditions for early redemption

CIECH S.A. is subject to mandatory redemption of the Domestic Bonds at their nominal value plus the accrued and unpaid interest before the maturity date in the case of payment default on interest or principal of the Domestic Bonds.

CIECH S.A. is subject to mandatory redemption of the Domestic Bonds at 100.7% of their nominal value plus the accrued and unpaid interest before the maturity date in the case a third party or third parties acting together obtain in one or more transaction directly or indirectly more than 50% of votes in CIECH S.A.

CIECH S.A. is subject to mandatory redemption of the Domestic Bonds at their nominal value plus the accrued and unpaid interest before the maturity date in the case one of the events listed below occurs and, in some cases, when such redemption is supported in voting by two thirds of the holders of Domestic Bonds:

- non-payment of the due and payable indebtedness in the amount exceeding 10% of consolidated share capital;
- acceleration of repayment of the indebtedness in the amount exceeding 10% of consolidated share capital;
- if CIECH S.A. or its subsidiaries incur additional indebtedness and EBITDA-to-net interest ratio is lower than 2.5 on a pro forma consolidated financial statement basis;
- if CIECH S.A. or its subsidiaries sell any of the assets in the soda segment and does not receive at least 75% in cash or cash equivalents and do not use the proceeds in the manner set forth in the Domestic Bonds;
- if CIECH S.A. or any of its subsidiaries sell any of the other assets and do not receive at least 75% in cash or cash equivalents and do not use the proceeds in the manner set forth in the Domestic Bonds;
- if any licenses and permits necessary for CIECH S.A. to perform its obligations under the Domestic Bonds expire or are revoked;
- if CIECH S.A. or any of its subsidiaries acquire another company which is not engaged in the current core business activity of the group or the surviving entity does not assume the obligations under the Domestic Bonds;
- if CIECH S.A. or any of its subsidiaries acquire another company whose business or activity is fully or partially coherent with the current core business activity of the group and the EBITDA-to-net interest as a result of such acquisition ratio is lower than 2.5 on a pro forma financial statement basis;
- if CIECH S.A. merges with another company unless CIECH S.A. is the surviving company or the surviving company assumes the obligations under the Domestic Bonds and in addition no event of default under the Domestic Bonds occurs and the EBITDA-to-net interest ratio on a pro forma consolidated financial statement basis is not lower than 2.5;
- if CIECH S.A. does not pay any amount exceeding 10% of its consolidated equity that was due and payable pursuant to a final and binding judgment or administrative decision;

- if the claims under Domestic Bonds no longer enjoy at least pari passu ranking with all other unsecured and unsubordinated claims of other creditors subject to claims enjoying statutory priority;
- if the securities granted by the subsidiaries of CIECH S.A. in respect of the Domestic Bonds cease to be legal, valid and enforceable;
- if CIECH S.A. or the Guarantors incur additional indebtedness secured over the assets of CIECH S.A. or the Guarantors and the net secured debt to EBITDA ratio is higher than 3.0;
- if a non-Guarantor subsidiary of CIECH S.A. incurs additional indebtedness and the net secured debt to EBITDA ratio (such debt being treated as secured debt for the purposes of calculating the ratio) is higher than 3.0;
- if any representation or warranty made by CIECH S.A. in the proposal to subscribe of the Domestic Bonds or in the terms and conditions of the Domestic Bonds appears to be untrue entirely or in part as of the date on which it has been made;
- if the documentation pursuant to which the transaction security is to be established is not duly executed on or the motions for the registration of all the relevant transaction securities are not filed with the relevant courts by the applicable dates;
- if the transaction security ceases to be legal, valid and enforceable;
- if any execution is effected or injunction issued against any assets of CIECH S.A. for an amount exceeding 10% of its consolidated equity;
- if CIECH S.A. defaults in respect of its other obligations and such default is not cured within 45 days of its occurrence.

CIECH S.A. is subject to obligatory redemption of Domestic Bonds at their nominal value plus the accrued and unpaid interest before the date of redemption in case one of the events listed below occurs (without the need for voting by the holders of Domestic Bonds):

- the Security Agent receives enforcement instructions from the relevant Instructing Group under the Intercreditor Agreement;
- insolvency proceedings;
- dissolution or liquidation of CIECH S.A.;
- cessation of business;
- if all the shares of CIECH S.A. are fully de-listed from the regulated market in Poland.

### Loans Agreement

On 29 October 2015, a loans agreement (“Loans Agreement”) was concluded between CIECH S.A. as the borrower, subsidiaries of CIECH S.A.: CIECH Soda Polska S.A., CIECH Sarzyna S.A. and CIECH Soda Deutschland GmbH & Co.KG as the guarantors (“Guarantors”), and other subsidiaries of CIECH S.A. as temporary guarantors (JANIKOSODA S.A., CIECH Vitrosilicon S.A., CIECH Nieruchomości S.A., CIECH Transclean Sp. z o.o., CIECH Trading S.A., Ciech Pianki Sp. z o.o., CIECH Cerium Sp. z o.o. sp.k., Cerium Sp. z o.o. S.K.A., SDC GmbH, Sodawerk Holding Staßfurt GmbH, Sodawerk Staßfurt Verwaltungs-GmbH (“Temporary Guarantors”) and Bank Handlowy Warszawa S.A., Bank Millennium S.A., Bank Zachodni WBK S.A., Credit Agricole Bank Polska S.A., HSBC Bank Polska S.A., Industrial and Commercial Bank of China (Europe) S.A. (joint stock company) Branch in Poland and Powszechna Kasa Oszczędności Bank Polski S.A. (“Creditors”) relating to refinancing the financial debt of the CIECH Group, financing the costs of refinancing as well as financing the general corporate aims of the CIECH Group.

Pursuant to the provisions of the Agreement, two other subsidiaries of CIECH S.A. have entered into it as the guarantors, namely KWG-Kraftwerksgesellschaft Staßfurt mbH (currently under the business name CIECH Energy Deutschland GmbH, the company entered into the Agreement on 27 November 2015) and CIECH Soda Romania S.A. (the company entered into the Agreement on 26 February 2016) (“Successive Guarantors”).

### Granted loans:

Pursuant to the Loans Agreement, the Creditors have granted the following loans to the Company:

- The synthetic term loan in PLN and EUR to the maximum amount of PLN 1,340,000 thousand, granted by the Creditors in order to: (i) refinance the debt resulting, among others, from the issue by the CIECH S.A.’s subsidiary – Ciech Group Financing AB (publ) – of hedged superior bonds for the amount of EUR 245,000 thousand, (ii) refinance the debt result-

ing from the revolving credit facility agreement of the highest priority to the amount of PLN 100,000 thousand, (iii) refinancing of the remaining CIECH S.A.'s debt resulting from other credits; (iv) financing of refinancing costs; and (v) financing of general corporate aims of the Company ("Term Loan"); the Term Loan was paid out on 25 November 2015 in the amount of PLN 1,045,031 thousand and EUR 69,673 thousand,

- Revolving credit facility in PLN to the total amount of PLN 250,000 thousand, granted by the Creditors in order to finance the general corporate aims and the working capital of the Company's capital group, excluding acquisitions and prepayment for the Term Loan (hereinafter referred to as the "Revolving Credit", and "Loans" jointly with the "Term Loan"). The amount of used credit as at 31 December 2016 was PLN 0;

#### Interest:

The interest rate of the Loans is a floating rate and it is determined on the basis of the WIBOR / EURIBOR base rate, plus margin, the level of which depends on the level of the net debt index to EBITDA. The initial value of the margin was 1.5%. The current value of the margin is 1.25%.

#### Loans repayment conditions

The main repayment conditions of the Loans are as follows:

- depreciation of the Term Loan in the value of 14.93% of the loan amount on 30 December 2018, 30 December 2019 and 30 December 2020 each, repayment of the remaining part five years from the first payout of the Term Loan,
- repayment of the Working Capital Loan with the lapse of the interest period selected by the Company for a given loan amount used, with mechanism of automatic revolving of the used amount for subsequent interest periods,
- cases of gross breach, allowing the creditors to request an earlier repayment of the loans:
  - no payment of the amounts due to the Creditors
  - violating the financial index provided for in the Loans Agreement;
  - no repayment of the refinanced financial debt by 31 December 2015;
  - lack of purchase of series O2 bonds (domestic bonds) by 5 December 2017;
  - ceasing the entire business activity conducted by the Company or its important part;
  - violations of the law;
- the final date of repayment of the Term Loan and the Revolving Credit – five years from concluding the Loans Agreement.

#### Security of loan repayment:

The Loans have been secured by sureties granted by each Guarantor or Temporary Guarantor, towards each of the Creditors, in the value of 125% of the maximum involvement of each Creditor in a given currency, whereas the total amount of sureties granted by each Guarantor or Temporary Guarantor shall not exceed 125% of the amount of Loans.

In the period from the date of purchasing domestic bonds, the security of the loans granted pursuant the Loans Agreement, will be constituted by, e.g. securities established by the Company, Guarantors, Temporary Guarantors and Successive Guarantors, in order to secure the parallel debt created pursuant to the Intercreditor Agreement concluded on 28 November 2012, including:

- mortgage established on the property of some subsidiaries of CIECH S.A.;
- pledges (register and financial pledges in relation to the companies seated in Poland and the corresponding securities in Germany and Romania), on the shares, stock or rights of shareholders in partnerships, Guarantors, Temporary Guarantors and Successive Guarantors;
- registered pledges on property and other assets of CIECH S.A., Guarantors and Temporary Guarantors seated in Poland;
- financial pledges on the rights to the means deposited on the bank accounts of CIECH S.A., Guarantors, Temporary Guarantors and Successive Guarantors (including securities corresponding to financial pledges in Germany and Romania);
- assignments of rights resulting from insurance policies issued in relation to the assets being the subject of securities as well as assignments relating to the loans granted within the group or credit instruments of different type as well as significant commercial contracts of CIECH S.A. and the selected Guarantors and Temporary Guarantors;
- statement of submission to enforcement proceedings of CIECH S.A., Guarantors and Temporary Guarantors seated in Poland;



- power of attorney to the bank accounts of CIECH S.A., Guarantors and Temporary Guarantors seated in Poland.

#### Other essential terms of the Loans Agreement:

Pursuant to the Loans Agreement, CIECH S.A. and the Guarantors are also obliged to the following:

- abiding by the limitations specified in the Loans Agreement relating to disposal of assets, with an exception of the allowable disposals under the Loans Agreement;
- refraining from paying a dividend in the case of exceeding the financial index specified in the Loans Agreement;
- refraining from taking out loans or granting loans in the case of exceeding the financial index specified in the Loans Agreement;

#### Intercreditor Agreement

On 28 November 2012, CIECH S.A. and particular companies of the Group have concluded an intercreditor agreement (“Intercreditor Agreement”) in order to establish a shared security package, regulate the relations and the possible priority between: (i) creditors and other senior creditors due to the initial loan agreement and any other loan agreements which will replace the initial loan agreement; (ii) entities who will enter into the Intercreditor Agreement as Parties of certain allowed agreements securing against risks; (iii) the Trustee acting on its own behalf and on behalf of the owners of bonds issued on foreign markets; (iv) Espirito Santo Investment Bank as the administrative agent for the purpose of the Domestic Bonds; (v) representatives of creditors and equivalent creditors; (vi) internal creditors and debtors within the group; and (vii) bank PKO BP S.A. as the Security Agent.

## 4.6.2 INTRAGROUP LOANS GRANTED

TABLE 36: SUMMARY OF LOANS GRANTED BY CIECH S.A. TO SUBSIDIARIES IN 2016

Borrower	Repayment date	The amount of loan granted and paid in PLN thousand as at 31 December 2016 (gross amount)		Conditions of granting
		in the currency in thousands	in PLN thousand	
CSD GmbH & CO KG	2018-12-29	EUR 8,000	35,392	fixed interest rate 2.7%
CIECH Cargo Sp. z o.o.	2017-12-31	PLN 5,000	5,000	interest of WIBOR 6M + 2.4%
Vasco Polska Sp. z o.o.	2017-12-31	(PLN 302 loan granted) PLN 30 – paid as at 31.12.2016	30	interest of WIBOR 6M + 2.4%
CIECH Soda Polska S.A.	2018-12-31	(PLN 90,000 loan granted) PLN 40,000 – paid as at 31.12.2016	40,000	interest of WIBOR 6M + 2.4%
CIECH Soda Polska S.A.	2018-12-31	PLN 117,000	117,000	interest of WIBOR 6M + 2.4%
CIECH Vitrosilicon S.A.	2018-01-31	(PLN 45,000 loan granted) PLN 25,300 – paid as at 31.12.2016	25,300	interest of WIBOR 6M + 2.4%
CIECH Soda Polska S.A.	2018-12-31	PLN 135,000	135,000	interest of WIBOR 6M + 2.4%

TABLE 37: SUMMARY OF LOANS CONCLUDED BETWEEN SUBSIDIARIES IN THE CIECH GROUP IN 2016

Lender	Borrower	Repayment date	The amount of loan granted and paid in PLN thousand as at 31 December 2016 (gross amount)		Conditions of granting
			currency '000	in PLN thousand	
Cerium Finance Sp. z o.o.	CIECH Pianki Sp. z o.o.	2017-12-31	PLN 10,000	10,000	interest of WIBOR 6M + 2.4%
Verbis ETA Sp. z o.o. SKA	Gamma Finanse Sp. z o.o.	2017-12-31	PLN 100	100	interest of WIBOR 6M + 2.4%



Lender	Borrower	Repayment date	The amount of loan granted and paid in PLN thousand as at 31 December 2016 (gross amount)		Conditions of granting
			currency '000	in PLN thousand	
			Algete Sp. z o.o.	CIECH Sarzyna S.A.	
Verbis KAPPA Sp. z o.o.SKA	CIECH Sarzyna S.A.	2017-12-31	PLN 800	800	interest of WIBOR 6M + 2.4%
Algete Sp. z o.o.	CIECH Sarzyna S.A.	2017-12-31	PLN 3,500	3,500	interest of WIBOR 6M + 2.4%
Verbis KAPPA Sp. z o.o.SKA	CIECH Sarzyna S.A.	2017-12-31	PLN 1,400	1,400	interest WIBOR 6M + 2.4%

Sureties and guarantees granted as at 31 December 2016 were described in detail in section 4.8.

#### 4.7 MATERIAL LITIGATION PENDING BEFORE A COURT, AN APPROPRIATE ARBITRATION AUTHORITY OR A PUBLIC ADMINISTRATION AUTHORITY

##### Significant disputed liabilities of the CIECH Group

As at 31 December 2016, the total value of significant disputed liabilities of CIECH S.A. and subsidiaries of CIECH S.A., pursued in all types of proceedings before court, body appropriate for arbitration proceedings or public administration bodies represents less than 10% of CIECH S.A.'s equity.

##### Significant disputed receivables of the CIECH Group

As at 31 December 2016, the total value of significant disputed receivables of CIECH S.A. and subsidiaries of CIECH S.A., pursued in all types of proceedings before court, body appropriate for arbitration proceedings or public administration bodies represents less than 10% of CIECH S.A.'s equity.

#### 4.8 INFORMATION ON CHANGES IN CONTINGENT ASSETS AND LIABILITIES CIECH GROUP

##### Contingent assets and contingent liabilities including guarantees and sureties

TABLE 38: CONTINGENT ASSETS AND LIABILITIES CIECH GROUP

	31.12.2016	31.12.2015
<b>Contingent assets</b>	<b>18 864</b>	<b>18 864</b>
Other contingent receivables*	18 864	18 864
<b>Contingent liabilities</b>	<b>632 527</b>	<b>634 322</b>
Guarantees and sureties granted**	533 056	528 601
Other***	99 471	105 721

\*Contingent asset in the amount of PLN 18,864 thousand related to the action against GZNF "FOSFOR" Sp. z o.o. for the payment of compensation for making an alleged untrue declaration by GZNF "FOSFOR" Sp. z o.o. to CIECH S.A. about the condition of Agrochem Człuchów Sp. z o.o. with its registered office in Człuchów.

\*\* Including:

- guarantee granted up to the amount of 155% of liabilities related to the issue of domestic bonds in the amount of PLN 160,000 thousand – contingent liability in the amount of PLN 88,000 thousand,
- guarantee granted up to the amount of 125% of liability related to term loan in the amount of PLN 1,045,031 thousand and revolving loan in the amount of PLN 250,000 thousand – contingent liability in the amount of PLN 323,758 thousand,
- guarantee granted up to the amount of 125% of liability related to term loan in the amount of EUR 69,673 thousand – contingent liability in the amount of PLN 77,058 thousand,



- *guarantee for certain obligations and warranties made by Infrastruktura Kapuściska S.A. w upadłości likwidacyjnej as a part of the agreement for sale and transfer of TDI assets on BASF – contingent liability in the amount of PLN 44,240 thousand (EUR 10,000 thousand). The guarantee expired on 12 March 2017.*

\*\*\* Including mainly:

- *contingent liability in the SDC Group relating to environmental protection in the amount of PLN 16,112 thousand (EUR 3,642 thousand),*
- *contingent liability in CIECH Soda Polska S.A. regarding environmental penalty fees due to a boiler failure in the amount of PLN 30,974 thousand,*
- *contingent liabilities in CIECH Soda Polska S.A. resulting from blank promissory notes for the National Fund for Environmental Protection and Water Management relating to grants received in the event of a potential financial adjustment in the amount of PLN 33,483 thousand, in connection with the received subsidy to the project "Extension of the centre of decantation and filtration of distillation sludge in the Plant in Inowrocław" in the amount of PLN 10,930 thousand, in connection with the subsidy to the project "Reduction of dust emission in CHP Inowrocław – modernisation of electrofilters OP 110 No 2 and 4" in the amount of PLN 882 thousand, in connection with the subsidy to the project "Reduction of dust emission in CHP Inowrocław – modernisation of electrofilters OP 110 No 1 and 3" in the amount of PLN 98 thousand,*
- *potential liability in CIECH S.A. regarding employee claims in the amount of PLN 5,660 thousand.*

As at 31 December 2016, contingent liabilities amounted to PLN 632,527 thousand and decreased as compared to 31 December 2015 by PLN 1,795 thousand. The increase resulted mainly from the elimination of a liability related to a claim filed by employees of CIECH Soda Romania S.A. (PLN 20,374 thousand as at the end of 2015), receipt of two subsidies by CIECH Soda Polska S.A. in the total amount of PLN 11,910 thousand, increase in potential liabilities regarding employee claims in the amount of PLN 1,443 thousand and increase in other contingent liabilities on account of currency translation differences in the amount of PLN 5,047 thousand.

Information about contingent assets and liabilities of CIECH S.A. are presented in the Separate Financial Statements of CIECH S.A. for 2016 in note 9.2.

TABLE 39: SURETIES AND GUARANTEES GRANTED AS AT 31 DECEMBER 2016

Beneficiary's name	Total amount of liabilities covered by guarantee/surety in whole or in specific part		Financial terms, including guarantee fee due to the company; guarantee period	Principal
	currency	PLN		
<b>CIECH S.A.</b>				
Anwil S.A.	PLN 15,000 thousand	15,000 thousand	Commission of 1.5% p.a. of the guaranteed liability; collateral pertaining to liability. 30.06.2017	CIECH Trading S.A. (subsidiary)
BASF Polska Sp. z o.o., BASF SE	EUR 10,000 thousand	44,240 thousand	Guarantee for certain liabilities and warranties made by Infrastruktura Kapuściska S.A. w upadłości likwidacyjnej under the Agreement for Sale and Transfer of TDI assets to BASF; expired on 12.03.2017	Infrastruktura Kapuściska S.A. w upadłości likwidacyjnej (unrelated company)
BZ WBK Faktor Sp. z o.o.	PLN 18,000 thousand	18,000 thousand	Commission of 1.5% p.a. of the guaranteed liability; collateral pertaining to liability; no time limit	CIECH Trading S.A. (subsidiary)
Spolana a.s.	EUR 1,500 thousand	6,636 thousand	Commission of 1.5% p.a. of the guaranteed liability; collateral pertaining to liability. Liabilities incurred and outstanding by 31.12.2017	CIECH Trading S.A. (subsidiary)
Siemens Industrial Turbo- machinery s.r.o	EUR 1,753 thousand	7,755 thousand	Commission of 0.4% p.a. of the guaranteed liability, lease instalments outstanding by 30.04.2019	CIECH Energy Deutschalnd GmbH (subsidiary)
VITROBUDOWA Sp. z o.o.	PLN 67,035 thousand	67,035 thousand	Commission of 1.5% p.a. of the guaranteed liability; 90 calendar days from signing the final acceptance report	CIECH Vitrosilicon S.A. (subsidiary)
<b>Total amount of guarantees and sureties granted</b>			<b>PLN 158,666 thousand</b>	
<b>Selected subsidiaries in Poland, Germany and Romania</b>				



Beneficiary's name	Total amount of liabilities covered by guarantee/surety in whole or in specific part		Financial terms, including guarantee fee due to the company; guarantee period	Principal
	currency	PLN		
Holders of Series 02 domestic bonds	PLN 248,000 thousand (guarantee granted up to the amount of 155% of liabilities related to the issue of domestic bonds in the amount of PLN 160,000 thousand)	248,000 thousand	Commission of 0.55% p.a of the difference between the limit of the guarantee collateralised by assets and a surplus of the guarantee limit; 05.12.2017	CIECH S.A. (parent company)
Banks:	PLN 1,618,789 thousand (guarantee granted up to the amount of 125% of liability related to term loan in the amount of	2,004,080 thousand	Commission of 0.55% p.a of the difference between the limit of the guarantee collateralised by assets and a surplus of the guarantee limit; 31.12.2023	CIECH S.A. (parent company)
Bank Handlowy w Warszawie S.A., Bank Millennium S.A., BZWBK S.A., Bank PKO BP S.A., Credit Agricole	PLN 1,045,031 thousand and revolving loan in the amount of PLN 250,000 thousand)			
Bank Polska S.a., HSBC Bank Polska S.A., ICBC (Europe) S.A. Branch in Poland	EUR 87,091 thousand (guarantee granted up to the amount of 125% of liability related to term loan in the amount of			
	EUR 69,673 thousand)			
<b>Total amount of guarantees and sureties granted</b>			<b>PLN 2,252,080 thousand</b>	

In 2016, the CIECH Group companies did not receive any guarantees from third parties.

#### Letters of support

As at 31 December 2016, CIECH S.A. was the obliged party in the letter of support (Patronatserklärung) regarding CIECH Soda Deutschland GmbH&Co. KG seated in Staßfurt (CSD) granted to RWE Gasspeicher GmbH ("RWE") relating to liabilities of CSD resulting from the agreement dated 5 May 2009 on salt caverns construction for the purpose of natural gas storage on the Staßfurt mining field according to which CSD received payments of EUR 34.8 million from RWE by 31 December 2016. In the letter of support, CIECH S.A. has committed, among other things, to ensure that CSD will have sufficient funds to fulfil its financial commitments against RWE resulting from the above-mentioned agreement.

#### Tax audits

As on the date of the financial statements, three CIECH Group companies were undergoing tax audits (in 2017 tax audits started in another two companies). The aim of the audits is to review the accuracy of the declared tax base and the correctness of calculations and payments of corporate income tax for the year 2015 or 2013. In the case of the three companies, the audit is in progress and as on the publication date of the financial statements the result of the audit is unknown. Two of the audited companies received the audit reports. In the reports, the auditors point out, among other things, that the companies underestimated their revenue with respect to the settlement of result on owned shares in a partnership for the total amount of PLN 69 million. At the same time, the auditors point out in the summary of the reports that the companies underestimated their tax liabilities for 2015 by PLN 6.6 mln in total. The audit report does not prejudge the outcome of the case. However, should the Head of the Tax Office accept all the findings presented in the reports, it might be necessary for each of the companies to pay the tax liabilities in the total amount of PLN 6.6 mln as estimated by the auditors plus interest for delay from 1 April 2016. The Management Boards of the companies and their tax advisors do not agree with the majority of findings discussed in the audit reports. The companies have submitted or intend to submit objections to the audit reports or their parts.

#### 4.9 TRANSACTIONS WITH RELATED PARTIES OTHER THAN ON AN ARM'S LENGTH BASIS

CIECH Group's companies did not conclude transactions on the terms other than market ones. Sales to and purchases from related entities are realised at market prices.



Description of transactions concluded between related entities is provided in note 9.3 to the Consolidated Financial Statements of the CIECH Group for 2016 and in note 9.3 to the Financial Statements of CIECH S.A. for 2016.

#### **4.10 CONTRACT WITH THE ENTITY AUTHORIZED TO AUDIT FINANCIAL STATEMENTS**

Information about contracts concluded with the entity authorized to audit the consolidated financial statement is presented in note 9.4 to the Consolidated Financial Statements of the CIECH Group for 2016 and in note 9.4 to the Financial Statements of CIECH S.A. for 2016.



**ORGANISATION, MANAGEMENT,  
STRUCTURE AND  
HUMAN RESOURCES**  
IN THE CIECH GROUP



## 5 ORGANISATION, MANAGEMENT, STRUCTURE AND HUMAN RESOURCES IN THE CIECH GROUP

### 5.1 EQUITY AND ORGANISATIONAL LINKS

The CIECH Group consists of domestic and foreign manufacturing, distribution and trade companies operating in the chemical industry. The CIECH Group comprises CIECH S.A. as the parent company, and related companies located, inter alia, in Poland, Germany, Romania.

Parent company	CIECH Spółka Akcyjna
Registered office	Warsaw, Wspólna Street 62
KRS (National Court Register number)	0000011687 (District Court for the Capital City of Warsaw in Warsaw, 13 <sup>th</sup> Commercial Division of the National Court Register)
Website	www.ciechgroup.com
IR Contact	ri@ciechgroup.com

As at 31 December 2016, the CIECH Group comprised 38 business entities, including:

- parent company,
- 32 subsidiaries, of which:
  - 23 domestic subsidiaries,
  - 9 foreign subsidiaries,
- 2 domestic affiliates,
- 1 foreign affiliate,
- 1 jointly controlled domestic entity,
- 1 jointly controlled foreign entity.

The strategic and operational goals of the CIECH Group are attained via organizational structure based on vertical functions, including the function of sales, production, procurement, and support.

The parent company of CIECH S.A. has a branch in Romania, a branch in Germany, and operates through its offices in Inowrocław and Nowa Sarzyna. CIECH Trading S.A. subsidiary has a branch in Bydgoszcz.

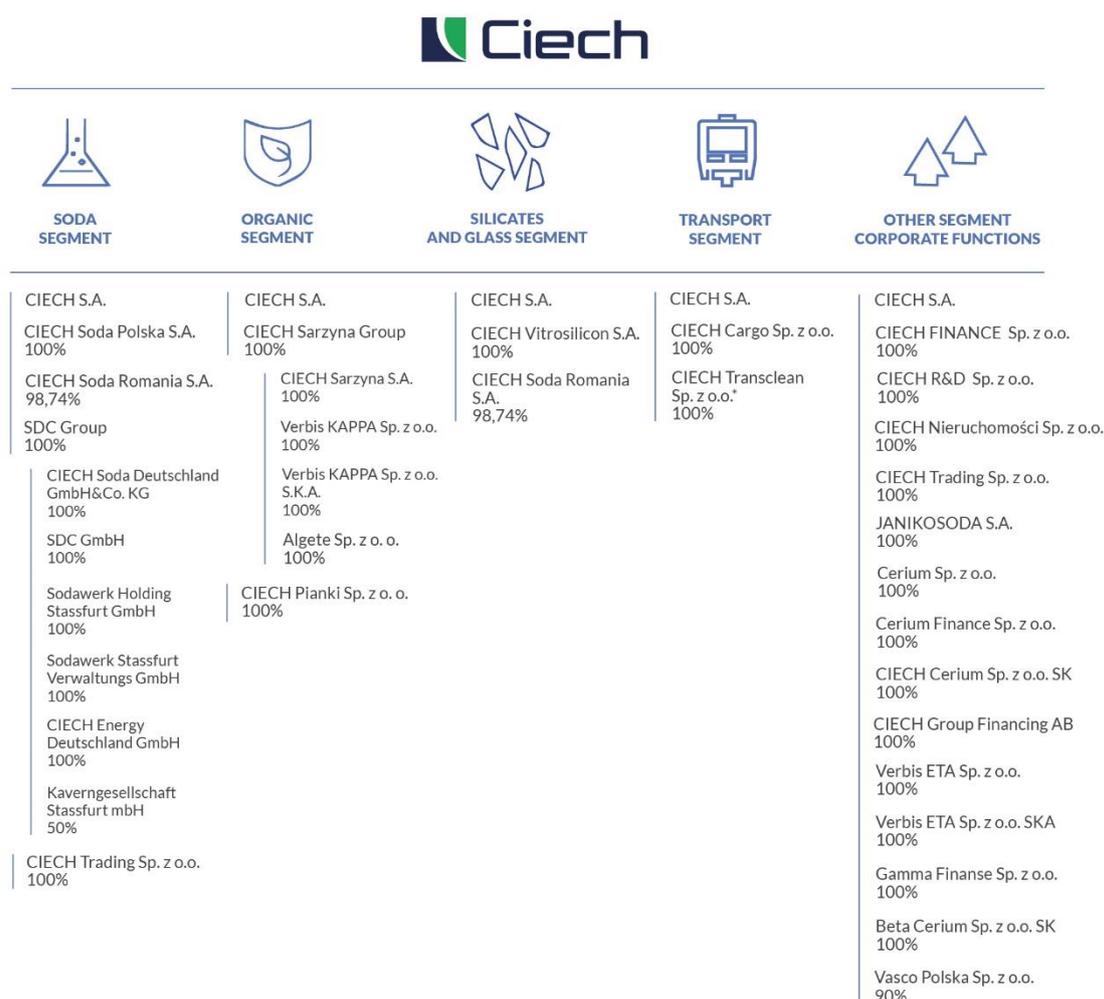
The trading activity is carried out mostly by CIECH S.A., domestic and foreign trading subsidiaries of CIECH S.A., as well as selected manufacturing companies (CIECH Sarzyna S.A., CIECH Vitrosilicon S.A., Grupa SDC, CIECH Pianki Sp. z o.o.) while the manufacturing activity is carried out by production companies, subsidiaries of CIECH S.A. The production is located in 8 plants, with four largest production plants (two in Poland, one in Germany and one in Romania) operate in the soda segment and manufacture soda ash and soda derived products (in the case of CIECH Soda Romania S.A., the plant also manufactures products in the silicates and glass segment, the soda plant in Janikowo also manufactures salt products and the plant in Germany produces electric energy sold to third parties). The other four plants are dedicated to the organic segment, and to silicates and glass segment, and are located in Poland.

### 5.2 SCOPE OF ACTIVITIES OF CIECH S.A. AND CONSOLIDATED ENTITIES WITHIN THE GROUP

The CIECH Group's business activities are primarily divided by operating segments, including in 2016: soda segment, organic segment, silicates and glass, and transport segment. A detailed description of the management segments is presented in item 1.3. The following diagram shows the structure of the CIECH Group, including fully consolidated companies or companies accounted for using the equity method in the consolidated financial statements of the CIECH Group as at 31 December 2016.



FIGURE 40: SEGMENT STRUCTURE OF THE CIECH GROUP AS AT 31 DECEMBER 2016



\* In view of the change of the model of purchasing transport and forwarding services, CIECH S.A. decided to phase out operating activities of CIECH Transclean Sp. z o.o.

Detailed information about the number of shares held by CIECH S.A./the CIECH Group in the equity of individual companies, along with the consolidation methods, is presented in note 9.5 to the Consolidated Financial Statements of the CIECH Group.

### 5.3 SCOPE OF ORGANISATION AND MANAGEMENT IN THE CIECH GROUP AND CHANGES IN 2016

The CIECH Group's organisational structure is based on the Matrix Management model in which the heads of specific areas within CIECH S.A., as a holding company, are responsible for their proper functioning in the entire CIECH Group.

The main assumptions for the above mentioned model and for the changes implemented in the Group structure are, among others:

- Integration of business and support functions at CIECH S.A. level
- Concentration of production companies of the Group on their production activity
- Clear division of competences and responsibilities (operational management of production companies by the parent company)
- Reduction of positions related to overlapping business and support functions

- Centralisation, among others, of the management in the areas of finance, IT, HR, or legal affairs.

The business model implemented in 2012-2015 increased the organisational effectiveness in the CIECH Group. In particular, higher effectiveness was reached in all areas of the Group's operations, along with higher flexibility and efficiency in response to occurring market changes, including a shorter decision-making process and a transparent division of responsibilities; also, overlapping competences between CIECH S.A. divisions and the Group companies were eliminated.

## 5.4 OWNERSHIP CHANGES

In 2016, the following changes occurred in relation to the companies in which CIECH S.A. held shares, either directly or indirectly. These changes translated into changes in the structure of the CIECH Group.

### Establishment of new companies

1. On 24 June 2016 a company was established under the business name Gamma Finanse Sp. z o.o. (limited liability company registered by the Court on 12 July 2016) with the registered office in Warsaw (share capital of PLN 50 thousand, divided into 1,000 shares with nominal value of PLN 50 each). Shares in the share capital are taken up as follows:
  - 500 shares were taken up by CIECH S.A. in consideration for cash contribution,
  - 500 shares were taken up by CIECH Soda Polska S.A. in consideration for cash contribution.
2. On 4 July 2016, a partnership under the business name Beta Cerium Sp. z o.o. Spółka komandytowa, with its registered office of Warsaw (registered by the Court on 13 July 2016), was established. The partnership has the following partners:
  - Cerium Sp. z o.o. (cash contribution of PLN 50),
  - CIECH Soda Polska S.A. (cash contribution of PLN 4,200 thousand),
  - CIECH Sarzyna S.A. (non-cash contribution with the value of PLN 40 thousand),
  - CIECH Pianki Sp. z o.o. (non-cash contribution with the value of PLN 3,955 thousand).
3. On 5 October 2016, a company was established under the business name Vasco Polska Sp. z o.o. (limited liability company registered by the Court on 24 October 2016) with the registered office in Warsaw. The partnership has the following partners:
  - CIECH S.A. (900 shares with the total nominal value of PLN 45 thousand were taken up in consideration for cash contribution),
  - individual shareholder (100 shares with the total nominal value of PLN 5 thousand were taken up in consideration for cash contribution).

### Phasing out of businesses

1. In view of the change of the model of purchasing transport and forwarding services, CIECH S.A. (acting as the sole shareholder of the Company) decided to cease operating activities of CIECH Transclean Sp. z o.o. with its registered office in Bydgoszcz, and to phase out the company's business. Further decisions on possible change of the company's object or dissolution of the company will be taken at a later date.
2. On 30 November 2016, Polcommerce mbH (Polcommerce Handels- und Vertretungsgesellschaft m.b.H.) ceased its operating activities and on 31 December 2016, the Company's liquidation proceedings were opened. The liquidation of the Company is related to the planned changes in the Group's business model in the area of sales. Markets previously served by Polcommerce m.b.H. will be served directly by CIECH S.A.

### Transformation of legal form of companies

In connection with the transformation plan prepared on 21 December 2015, reviewed by a registered auditor appointed by a decision of the registry court, the Extraordinary Partners' Meeting of Cerium Sp. z o.o. S.K.A., on 16 May 2016, adopted a resolution on the transformation of the partnership's legal form to a limited liability company (spółka z ograniczoną odpowiedzialnością). The business name of the transformed company is Cerium Finance Sp. z o.o. The share capital of the partnership subject to transformation amounts to PLN 1,439 thousand and is divided into 28,773 equal and indivisible shares with a nominal value of PLN 50 per share. The shares were allotted in the following manner:

- Cerium Sp. z o.o., the sole general partner of the partnership, was allotted 1 share with the nominal value of PLN 50,

- CIECH Soda Polska S.A., a shareholder of the company, was allotted 28,372 shares with the nominal value of PLN 50 per share, with the total nominal value of PLN 1,419 thousand,
- JANIKOSODA S.A., a shareholder of the company, was allotted 200 shares with the nominal value of PLN 50 per share, with the total nominal value of PLN 10 thousand,
- CIECH S.A., a shareholder of the company, was allotted 200 shares with the nominal value of PLN 50 per share, with the total nominal value of PLN 10 thousand.

Assets of the company subject to transformation became assets of the transformed company on 1 June 2016 (i.e. on the date of registration of the transformation by the registry court) and constituted the contribution of individual partners to the transformed company, as specified in the company's deed. The excess of value of the partners' contribution to the transformed company over the value of the company's share capital represents the supplementary capital of the transformed company. Furthermore, at the same Extraordinary Partners' Meeting, the partners submitted declaration on participation in the partnership after the transformation of its legal form into a limited liability company.

### Changes in the share capital of companies

1. On 24 June 2016, the Extraordinary Shareholders' Meeting of Cerium Finance Sp. z o.o. adopted resolutions on the following matters (the District Court registered the change on 7 July 2016):
  - Voluntary redemption without compensation of 200 shares in the company allotted to JANIKOSODA S.A. and the related reduction of the company's share capital. On 24 June 2016, JANIKOSODA S.A. ceased to be a shareholder of the company. Consequently, the Extraordinary Shareholders' Meeting reduced the company's share capital by way of redemption of 200 shares with the nominal value of PLN 50 each and with the total nominal value of PLN 10 thousand, i.e. from PLN 1,439 thousand to PLN 1,429 thousand.
  - The increase of the share capital from the amount of PLN 1,429 thousand to the amount of PLN 1,439 thousand by creating 200 new shares with the nominal value of PLN 50 each – total nominal value of PLN 10 thousand. All newly created shares in the increased share capital of the Company were to be taken up by CIECH S.A. in consideration for cash contribution in the amount of PLN 10 thousand.
  - The consent to sell by Cerium Sp. z o.o. of 1 share in the Company with nominal value of PLN 50 to the existing shareholder in CIECH Soda Polska S.A. As of 24 June 2016 Cerium Sp. z o.o. ceased to be the shareholder in Cerium Finance Sp. z o.o.
2. On 12 July 2016, shareholders of Cerium Finance Sp. z o.o. made a non-cash contribution to Gamma Finanse Sp. z o.o. in the form shares in Cerium Finance Sp. z o.o., in exchange for shares in the increased share capital of Gamma Finanse Sp. z o.o., i.e.:
  - CIECH Soda Polska S.A. contributed 28,083 shares in Cerium Finance Sp. z o.o., with the total nominal value of PLN 1,404 thousand (representing 97.60% of the share capital),
  - CIECH S.A. contributed 400 shares in Cerium Finance Sp. z o.o., with the total nominal value of PLN 20 thousand (representing 1.39% of the share capital).
3. As of 12 July 2016, CIECH S.A. ceased to be the shareholder in Cerium Finance Sp. z o.o. As of 29 July 2016, i.e. as of the date of registration by the Court of the increase of the share capital of Gamma Finanse Sp. z o.o., Cerium Finance Sp. z o.o. has the following shareholders:
  - Gamma Finanse Sp. z o.o. (holding 28,483 shares, representing 98.99% of the share capital),
  - CIECH Soda Polska S.A. (holding 290 shares, representing 1.01% of the share capital).

### Other changes

On 12 July 2016, the General Meeting of CIECH Cerium Sp. z o.o. Sp. k. adopted resolution in which it gave its consent to the disposal by partners of all rights and obligations of the limited partner to CIECH S.A. Therefore, on 12 July 2016, the current partners of CIECH Cerium Sp. z o.o. Sp. k. (CIECH Sarzyna S.A., CIECH Vitrosilicon S.A., CIECH Pianki Sp. z o.o., CIECH Soda Polska S.A., CIECH Cargo Sp. z o.o.) concluded an agreement with CIECH S.A. for the disposal of all rights and obligations of the limited partner. As a result of conclusion of all the agreements listed above, on 12 July 2016 CIECH S.A. became the sole limited partner of CIECH Cerium Sp. z o.o. Sp. k.

On 12 July 2016, the General Meeting of CIECH Cerium Sp. z o.o. Sp. k. adopted resolution on amendment to the Limited Partnership Deed, according to which the following contributions are assigned to individual partners:

- to the general partner: Cerium Sp. z o.o. — cash contribution in the amount of PLN 1, participating in the Company's profits and losses in the proportion 1/475,001,
- to the limited partner: CIECH S.A. — cash contribution in the amount of PLN 475 thousand, participating in the Company's profits and losses in the proportion 475,000/475,001.

#### Acquisition of shares in other companies

On 11 July 2016, CIECH S.A. sold 100% of shares in CIECH Nieruchomości S.A. to CIECH FINANCE Sp. z o.o., for the total amount of PLN 93 thousand.

On 23 December 2016, CIECH Trading S.A. sold 100% of shares in JANIKOSODA S.A. to CIECH Finance Sp. z o.o., for the total amount of PLN 1.

In 2016, the CIECH Group did not discontinue its activities in any significant area. After the reporting date, there were no changes in the Group's organisation.

## 5.5 EMPLOYMENT STRUCTURE AND HUMAN RESOURCES

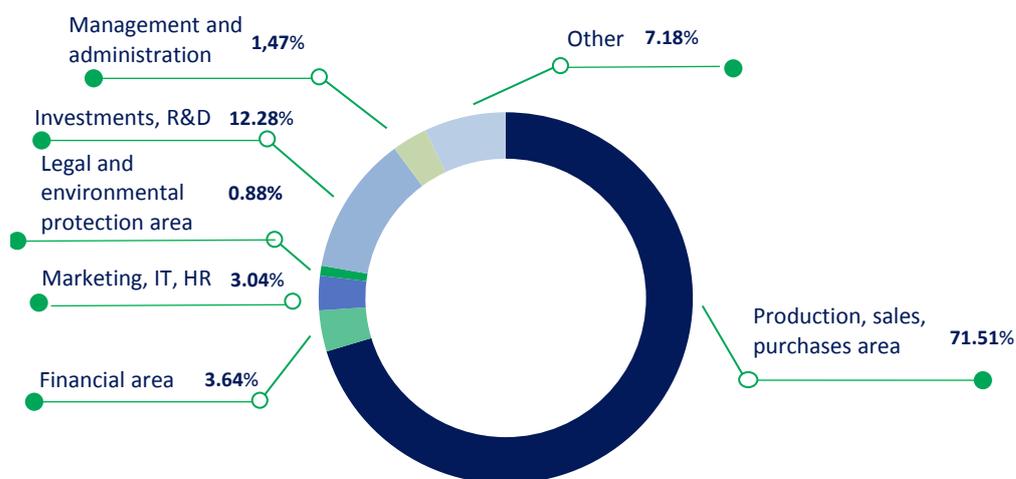
### Employment structure

As at the end of 2016, the CIECH Group (the parent company, CIECH S.A., and fully consolidated subsidiaries) employed 3,855 people (including 426 people in CIECH S.A.). As at the end of the comparable period, i.e. 2015, the Group employed 3,719 people. About 75% employees work in Poland, the majority of which is employed by the production department.

TABLE 40: EMPLOYMENT IN THE CIECH GROUP – WHITE COLLAR WORKERS AND BLUE COLLAR WORKERS

	2016	2015
<b>State of employment in people</b>	<b>3,855</b>	<b>3,719</b>
White-collar workers	1,295	1,235
Blue-collar workers	2,560	2,484
<b>Average employment in people</b>	<b>3,870</b>	<b>3,668</b>
White-collar workers	1,276	1,206
Blue-collar workers	2,594	2,462

FIGURE 41: EMPLOYMENT IN THE CIECH GROUP – BUSINESS AREAS

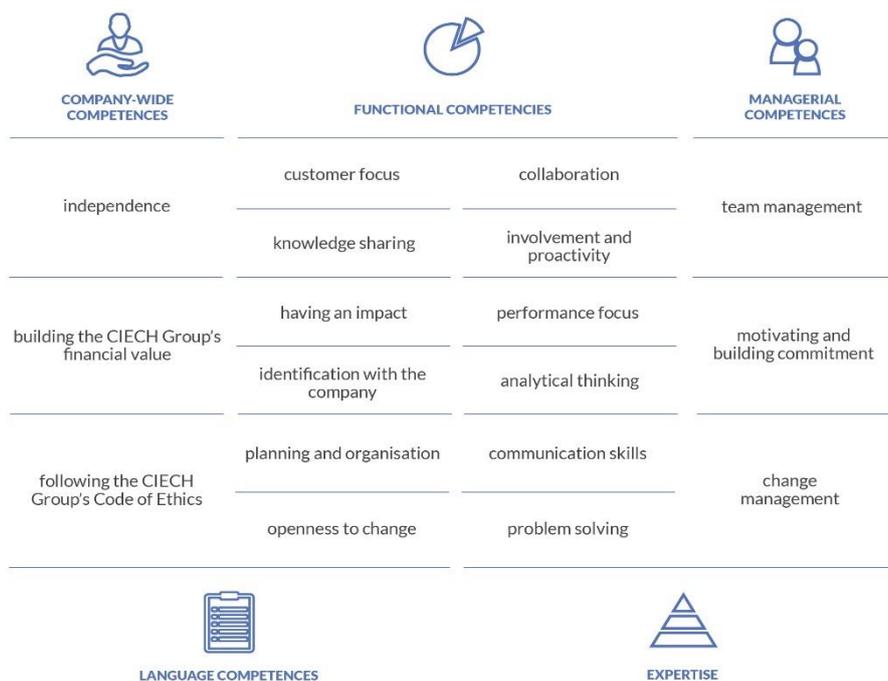


The CIECH Group is a responsible employer and undertakes a number of actions aimed at improving the efficiency of communication with employees and enhancing their satisfaction and involvement.

**Competence model**

The CIECH Group has introduced a competence model which results from the foundations of the organisation, i.e. the company's business strategy, objectives, values and vision. It plays a key role in, among others, the employee development area.

FIGURE 42: COMPETENCE MODEL IN THE CIECH GROUP



**Selected human capital management activities carried out in 2016**

In 2016, the CIECH Group, with a view to building and maintaining the image of the best employer, took a number of actions for its employees, as well as actions addressed to stakeholders outside the Group, including:

- **Implementation of the CIECH Onboarding programme** – the CIECH Onboarding programme was launched in the Group in April 2016. The programme aims at supporting the adaptation of new employees which is of key importance both for the functioning of the employee in a new workplace and for the organisation. As part of the Onboarding programme, new employees participate in a training during which they learn about the Group, products, structure, social offer, development opportunities, communication policy and marketing activities.
- **Employee Engagement Survey** – the Employee Engagement Survey was conducted in October 2016 in all Group Companies. Its goal was to identify attitudes and moods among employees of the organisation. The results of this survey are very important for the development of friendly working environment that promotes essential values for the CIECH Group.
- **Exit Interview Programme** – opinions of former employees are also very important for the CIECH Group. In 2016, the Group started to conduct interviews with employees who decided to leave the organisation. Their goal is to sum up the collaboration.

The CIECH Group places considerable emphasis on the development of its employees, allowing them to expand their competencies both during and outside working hours. Employees have a possibility to obtain co-financing for specialist trainings selected by them, language courses or studies (at the bachelor, master, post-graduate and MBA level). The CIECH Group



regularly organises free trainings and workshops to ensure continual development of competences required for particular working positions.

The CIECH Group, as an entity with a manufacturing profile, maintains the highest safety standards. Mandatory and optional training are conducted in order to ensure maximum safety of employees. In 2016, the Group conducted a series of training sessions at the CIECH Group's production plants where the largest volumes of repair and construction works at heights are carried out.

#### Employer branding and talent searching

The CIECH Group places considerable emphasis on building a positive image as an attractive employer. Owing to efforts taken in this area, recruitment processes carried out in individual Group companies are more efficient and the costs associated with them are optimised.

The CIECH Group regularly participates in initiatives addressed to school pupils and students. In 2016, CIECH S.A. was present at the jobs fair organised by Absolvent Talent Days in Warsaw and Porozumienie Bydgoskich Biur Karier in Bydgoszcz. Participation in this event was an opportunity to meet with potential candidates and interns who plan to take up their first professional challenges. Managers and specialists from different departments of the company talked about development opportunities and challenges in the Group. Job and internship opportunities were published in student magazines. In 2016, the CIECH Group employed 35 students on a paid internship basis. Some of the interns received an offer to continue their employment. The CIECH Group also organises workshops for students of technical schools, focused on operating in the labour market.

#### Human resources management awards received in 2016



In December 2016, CIECH S.A. received a special certificate "Profesjonalne ZZL" ["Professional HRM"] from the jury of the 17<sup>th</sup> edition of the "Leader in Human Resources Management" competition. The Institute of Labor and Social Affairs recognised the company's excellent human resources management strategy and introduction of new systemic solutions in the HR area.



In November 2016, CIECH S.A. received the certificate "HR Najwyższej Jakości" ["Top-quality HR"], during the HR Awards Ceremony. The certificate is awarded by the Polish Human Resources Management Association to companies with the highest standards of HR based on objective examination of the personnel policy. The certification examination is focused on the practical dimension of the company's HR policies and tools.



In March 2016, the CIECH Group was awarded the title "Reliable Employer 2015". The purpose of the "Reliable Employer" contest is to identify the best employers in Poland, especially those who promote the most attractive HR solutions in their business, and at the same time share their experience in the press nationwide.



CIECH S.A. was among 100 most attractive employers in Poland in 2016, according to the survey conducted by Universum Global among students and graduates of Polish universities.



In 2016, CIECH S.A. (Branch in Romania) received two awards: 1<sup>st</sup> place for the best company in 2015 and 4<sup>th</sup> place for the best international company. Both awards were granted by the Chamber of Commerce and Industry of Vâlcea in Romania.



# SHARES AND SHAREHOLDERS

## 6 SHARES AND SHAREHOLDERS

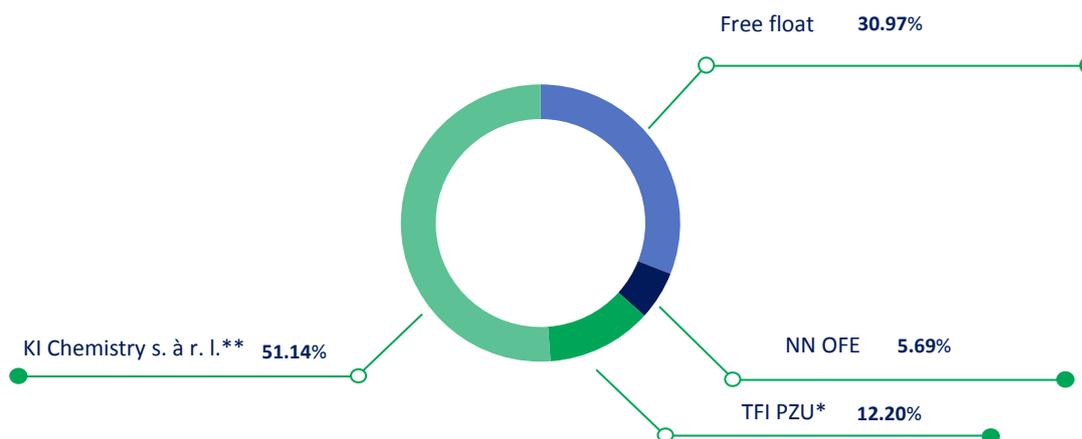
### 6.1 SHAREHOLDER STRUCTURE OF CIECH S.A.

The shares of CIECH S.A. are listed on Warsaw Stock Exchange and on Frankfurt Stock Exchange. The share capital of CIECH S.A. amounts to PLN 263,500,965 and is divided into 52,699,909 shares with a nominal value of PLN 5 each, including:

- 20,816 A-series ordinary bearer shares,
- 19,775,200 B-series ordinary bearer shares,
- 8,203,984 C-series ordinary bearer shares,
- 23,000,000 D-series ordinary bearer shares,
- 1,699,909 E-series ordinary bearer shares.

To the best knowledge of CIECH S.A., entities holding significant blocks of shares (at least 5%) are the entities listed below:

FIGURE 43: SHAREHOLDER STRUCTURE AS AT THE DATE OF APPROVAL OF THIS REPORT



\*As at 31 December 2016, the share of TFI PZU in the shareholder structure was 9.99%.

\*\*KI Chemistry s.à.r.l. is a subsidiary of Kulczyk Investments.



Since 2014, the major shareholder of CIECH S.A. is a reliable strategic investor – **Kulczyk Investments**. It is an international investment company focused on business opportunities in high growth markets.

## 6.2 CIECH S.A. ON THE STOCK EXCHANGE

### 6.2.1 CIECH S.A. ON THE WARSAW STOCK EXCHANGE

Shares of CIECH S.A. debuted on the Warsaw Stock Exchange on 10 February 2005. In February 2011, the company completed the process of issuing shares with pre-emptive rights, and as a result, it issued ordinary bearer shares, which were first quoted on 30 March 2011. Shares of CIECH S.A. are quoted on the primary market of the Warsaw Stock Exchange in the continuous trading system.

TABLE 41: BASIC INFORMATION ON THE SHARES

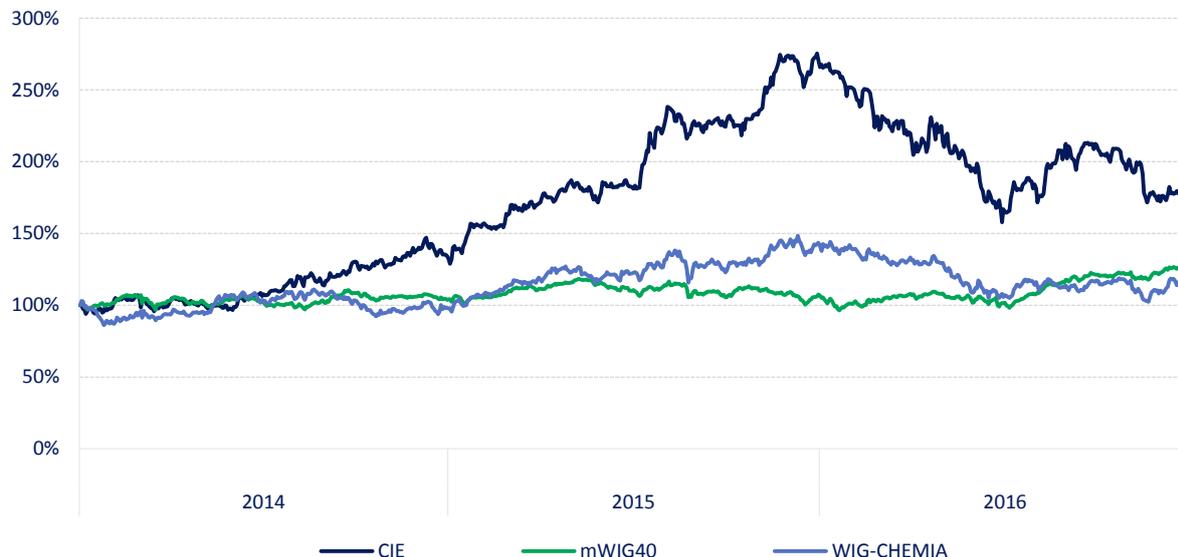
Name	CIECH S.A.
Abbreviated name	CIECH
Ticker	CIE
ISIN	PLCIECH00018
Bloomberg ticker	CIE PW
Listed from	10.02.2005
Number of shares	52,699,909
Segment	Large company (capitalisation of over EUR 250 million)
Macrosector / Sector	Industry (0.357%) / Chemical (11.111%)
Sector groups	chemicals, fertilisers and nitrogen compounds
Indices	WIG, mWIG40, WIG-CHEMIA, WIG-Poland, MSCI Emerging Markets, FTSE All-World, InvestorMS

TABLE 42: INDICES CONTAINING CIECH S.A.'S SHARES

Index	Description	Share of CIECH S.A.'s shares in the index
 <b>WIG</b>	WIG – an index comprised of all companies listed on the Main Market of the Warsaw Stock Exchange which meet the base criteria for participation in the indices.	0.55%
 <b>mWIG40</b>	mWIG40 – an index grouping 40 medium companies listed on the Main Market of the Warsaw Stock Exchange.	2.36%
 <b>WIGchemia</b>	WIG-CHEMIA – a sectoral index, which is comprised of companies which participate in the WIG index and are at the same time categorized as “chemistry” companies.	21.16%
 <b>WIGPoland</b>	WIG-Poland – an index comprised only of shares of domestic companies listed on the Main Market of WSE, which meet the base criteria for participation in the indices.	0.57%
 <b>MSCI</b>	MSCI Emerging Markets Index – one of the indices calculated by MSCI ESG Research. The index has been developed for investors seeking companies with a profile focused on emerging markets.	0.09%
 <b>FTSE Russell</b>	FTSE All-World Index – an index comprised of shares of medium and large companies. The account for 90-95% of capitalisation of companies listed on global markets. It is calculated for mature and emerging markets and forms the basis for investment products.	<0.005%

## Share prices

FIGURE 44: CHANGES IN PRICES OF CIECH S.A.'S SHARES IN COMPARISON WITH CHANGES IN INDICES



\* Source: WSE data.

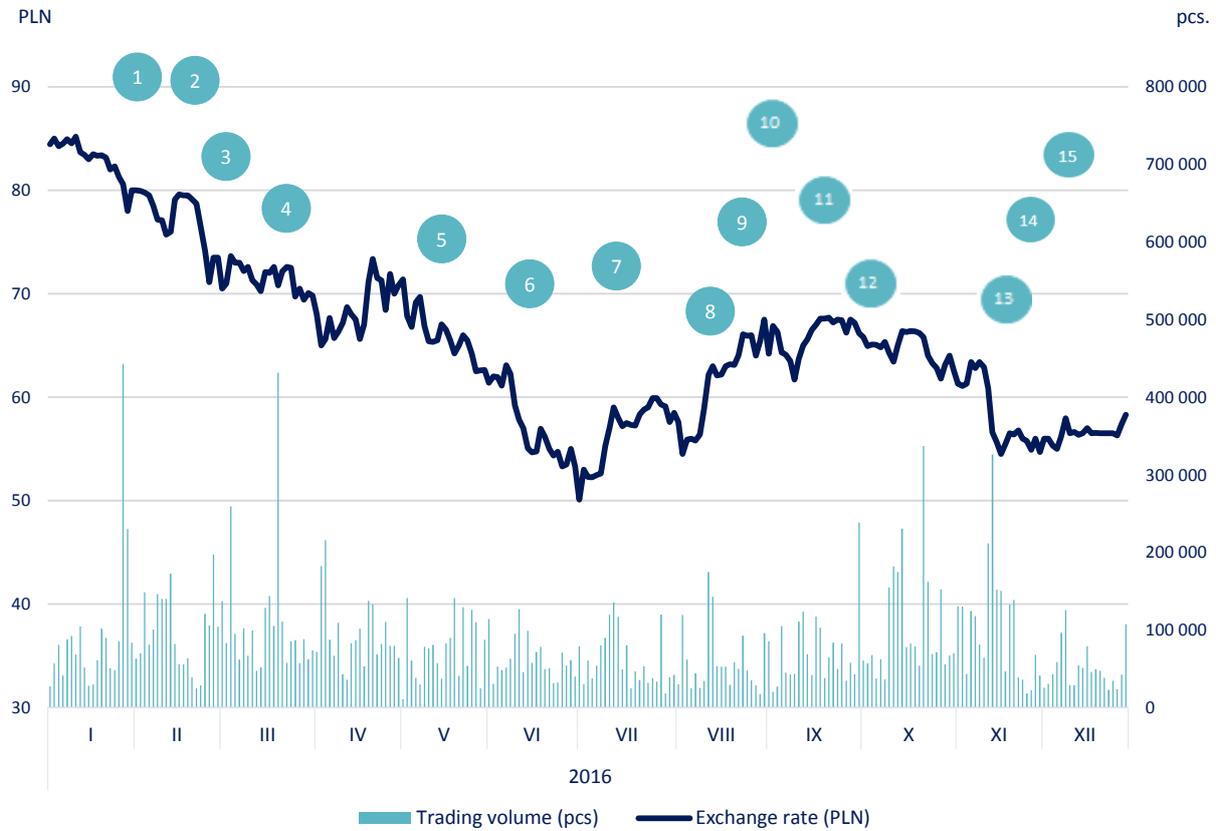
In 2016, high volatility of major indices of the Warsaw Stock Exchange could be observed. The main WSE index, WIG, increased by 11.4% over the previous year, reaching 51,754.03 points. WIG20, i.e. the index that groups twenty largest companies, increased by 4.8% and reached 1,947.92 points at the end of 2016. Over the past year, mWIG40, an index of mid-cap companies, increased from 3,567.05 points to 4,215.54 points, i.e. by 18.2%. The industry index, WIG-Chemia, declined by 16.4% to the level of 13,755.9 points at the close of the last session in the year.

**PLN 3.07 billion** – market capitalisation of CIECH S.A. at the end of 2016

In the first half of 2016, prices of CIECH S.A.'s shares followed a downward trend. This trend was clearly reversed at the end of June, and the upward trend continued until the end of September. The price of CIECH S.A.'s shares ranged from PLN 46.36 to PLN 81.00. The closing price during the last 2016 session amounted to PLN 58.31, which is a 32.20% decline as compared to the closing price at the end of 2015.



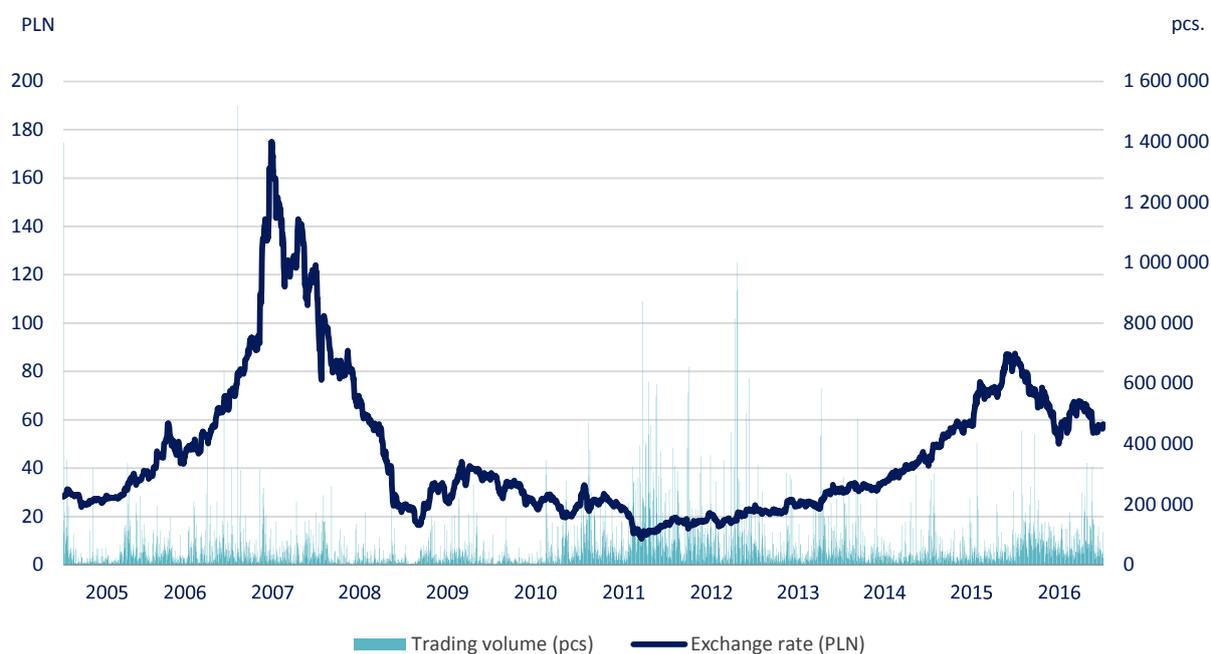
FIGURE 45: PRICE OF CIECH S.A.'S SHARES AND TRADING VOLUME IN 2016



\* Source: WSE data.

- |   |  |    |   |
|---|--|----|---|
| 1 | Organic segment – introduction of ZIEMOWIT, a new product line   | 9  | 10.08: Introduction of CIECH S.A.'s shares to trading on the stock exchange in Frankfurt  |
| 2 | Completion of a strategic Soda +200 project  | 10 | 16.08: Dividend payment   |
| 3 | 6.03: Changes in the composition of the Supervisory Board  | 11 | 30.08: Publication of the Report for H1 2016  |
| 4 | 23.03: Publication of the Annual report for 2015   | 12 | 6.09: Securing the supply of technological steam in Romania   |
| 5 | 12.05: Publication of the Report for Q1 2016   | 13 | 2.11: Submission by CIECH S.A. of an offer in a potential transaction to acquire subsidiaries of SAPEC Portugal                     |
| 6 | 6.06: GSM's decision regarding the payment of dividend for 2015  | 14 | 5.11: Termination of CIECH S.A.'s participation in the process of a potential transaction to acquire subsidiaries of SAPEC Portugal |
| 7 | Completion of the glass furnace replacement project in CIECH Vitrosilicon S.A.                                       | 15 | 14.11: Publication of the Report for Q3 2016  |
| 8 | 3.08: Limitation of technological steam supply to CIECH Soda Romania S.A. and stoppage of soda production in Romania |    |   |

FIGURE 46: PRICE OF CIECH S.A.'S SHARES SINCE FIRST LISTING ON THE WSE



\* Source: WSE data.

#### Key data concerning shares of CIECH S.A.

CIECH S.A.'s shares listed on the Warsaw Stock Exchange are characterised by high liquidity. In 2016, the average number of the company's shares changing hands in a trading session was 82.4 thousand. The average volume of trading per session was PLN 5.5 million, and the average number of trades per session was 851.

TABLE 43: DATA CONCERNING SHARES OF CIECH S.A. AT THE WSE

CIECH S.A.'s shares – statistics	2016	2015	2014
Number of shares (item)	52,699,909	52,699,909	52,699,909
Closing share price as at the last quotation day in the year (PLN)	58.31	86.00	42.61
Capitalization of the company as at the end of the year (PLN million)	3,073	4,532	2,246
Maximum price in the year (PLN)	87.29	88.00	46.70
Minimum price in the year (PLN)	48.89	40.51	29.86
Average trading volume per session (number of shares)	82,422	47,048	45,897
Average trading value per session (PLN)	5,474,000	2,936,000	1,600,000
Average number of trades per session	851	278	132
Capital market ratios for CIECH S.A.'s shares	31 December 2016	31 December 2015	31 December 2014
EPS (PLN)			
Earnings/ number of shares	11.37	6.51	3.17
P/E (x)			
Price / earnings per share (P/E)	6.1	12.4	60.0
P/BV (x)			
Market price per share / book value per share (P/BV)	1.93	3.61	2.49
EV/EBITDA (x)	4.83	8.33	6.51

\* Source: CIECH S.A., WSE data.

## 6.2.2 CIECH S.A. ON THE FRANKFURT STOCK EXCHANGE

On 23 August 2016, CIECH S.A.'s shares were admitted to trading in the Frankfurt Stock Exchange and are listed on the regulated market, in the General Standard sub-segment. The decision of the Management Board of the company was another step in the implementation of a strategy of expansion of the leading Polish chemical company in international markets.

TABLE 44: KEY INFORMATION ABOUT SHARES LISTED ON THE FRANKFURT STOCK EXCHANGE

Ticker	CHX
Listed from	23.08.2016
Number of shares	52,699,909
Market	General Standard sub-segment

## 6.2.3 INVESTOR RELATIONS

CIECH S.A. undertakes various investor relations activities. They are aimed at meeting the highest information governance standards and fulfilling information needs of the Group's stakeholders. A priority in the area of investor relations is to ensure equal and continuous access to information about the Company and the Group to all shareholders and stakeholders.

In 2016, CIECH S.A. implemented a number of initiatives in the area of investor relations, including:

**Direct meetings** – the company organises group meetings with the Management Board to discuss financial performance (dedicated to sell-side analysts and buy-side representatives) and representatives of CIECH S.A. are also available for individual meetings where required.

**Roadshows and investor conferences** – in 2016, the company participated in non-deal roadshows and investor conferences organised in Poland and abroad.

In 2016, **87 meetings\*** with representatives of the capital market were organised, with the total number of participants reaching **314 persons**

*\* individual meetings, conference calls, investor conferences, performance meetings, non-deal roadshow*

**Active "Investor relations" tab on the company's website** – the company posts information on, among others, key events and new recommendations on its website. The tab is also systematically updated with new information (videos, presentations, infographics). The website is available in Polish and English: <http://ciechgroup.com/relacje-inwestorskie/>.

**WallStreet Conference** – in 2016, CIECH S.A.'s representatives took an active part in the WallStreet Conference – it is the largest meeting in the region organized for individual investors and one of the largest events focusing on the capital market in Poland. Individual investors had the opportunity to meet with the company's representatives during the Shareholders Fair (information stand) and Shareholder Forum (presentation in the form of a lecture).

**Study of the company's perception on the capital market** – in 2016, CIECH S.A. also carried out a study of its perception on the capital market. The aim of the study was to identify the views of market participants about the company and better understand information needs of this group of recipients. Knowledge gained from this perception study is used in the development of the CIECH Group's information policy on the capital market.

TABLE 45: RECOMMENDATIONS FOR CIECH S.A.'S SHARES

<b>11</b>	Buy, accumulate
<b>5</b>	Hold
<b>3</b>	Sale

CIECH S.A., as one of the largest companies from the chemical sector listed on the WSE whose shares are included in the mWIG40 index, is regularly assessed and rated by reputable institutions of the capital market. In 2016, **13 financial institutions** issued **19 recommendations** with regard to CIECH S.A.'s shares.

TABLE 46: SUMMARY OF RECOMMENDATIONS AND REPORTS OF BROKERAGE HOUSES IN 2016

Highest target price	PLN 101.20
Median	PLN 77.00
Lowest target price	PLN 50.00

TABLE 47: DETAILED INFORMATION ABOUT RECOMMENDATIONS FOR CIECH S.A. ISSUED IN 2016

Date	Institution	Recommendation	Target price
20.12.2016	Raiffeisen	BUY	PLN 68.00
02.12.2016	Trigon DM	HOLD	PLN 57.40
30.11.2016	DM BOŚ	BUY	PLN 91.80
16.11.2016	mDM	HOLD	PLN 61.60
24.10.2016	Trigon DM	SELL	PLN 59.10
13.10.2016	DM BOŚ	BUY	PLN 92.50
30.09.2016	Erste Group	SELL	PLN 50.00
09.08.2016	Raiffeisen Centrobank	BUY	PLN 77.00
18.07.2016	DM PKO BP	HOLD	PLN 62.50
12.07.2016	Trigon DM	BUY	PLN 66.00
23.06.2016	DM BZ WBK	BUY	PLN 90.20
08.06.2016	DM BDM	ACCUMULATE	PLN 73.50
05.05.2016	Ipopema Securities	BUY	PLN 85.70
05.05.2016	Haitong	BUY	PLN 82.10
15.03.2016	Raiffeisen Centrobank	BUY	PLN 85.00
19.02.2016	Pekao IB	HOLD	PLN 86.00
27.01.2016	Wood&Company	HOLD	PLN 90.00
13.01.2016	DM PKO BP	SELL	PLN 59.60
07.01.2016	Erste Group	BUY	PLN 101.20

### Dividend

The Management Board of CIECH S.A. is not expecting the dividend payment from profits earned during the period of 2016. The Management Board proposes to transfer the profits generated in 2016 to supplementary capital.

On 16 June 2016, the Ordinary General Meeting of Shareholders of CIECH S.A. adopted a resolution regarding the distribution of the Company's net profit for 2015 in accordance with the recommendation of the Supervisory Board. The amount of PLN 150,195 thousand was allocated to dividends to shareholders, i.e. PLN 2.85 per share. The amount of PLN 181,384 thousand was allocated to the Company's supplementary capital. Dividend date was set on 30 June 2016 and the dividend was paid on 16 August 2016.

**PLN 150.2 million**  
dividend for 2015

**PLN 2.85**  
dividend per share

### 6.3 RATINGS

CIECH S.A. is regularly assessed by two leading rating agencies – **Standard & Poor's** and **Moody's**.

In November 2015, Standard & Poor's Rating Services agency raised the corporate rating of CIECH S.A. and of the bonds issued by Ciech Group Financing AB from "B+" to "BB-" with a stable prospect. This higher rating resulted from improved performance of CIECH S.A. and lower level of relative debt of the Company.

In 2015, Moody's Investors Service rating agency published a report in which it raised the rating awarded at the request of the Company from "B1" to "Ba3", with a positive prospect. Moody's justified the increase in rating by improved results in 2014 and 2015, which were manifested by the improved EBITDA margin, the amount of generated cash flows and the effectively performed refinancing of debt.

TABLE 48: RATINGS AWARDED TO CIECH S.A.

	Standard & Poor's	Moody's
Company's long-term rating	BB-	Ba3
Rating outlook	Stable	Positive
Rating date	16 November 2012	16 November 2012
Most recent change of ratings	25 November 2015	3 December 2015

### 6.4 OTHER INFORMATION CONCERNING SHARES AND SHAREHOLDERS

#### Issue of securities and utilization of proceeds from issue of shares

In 2005 and 2011, CIECH S.A. issued securities. Proceeds from these issued were used for investments, debt reduction and restructuring efforts.

In 2016, the CIECH Group used no proceeds from the issue of shares.

#### Purchase of treasury shares

CIECH S.A. and other entities of the CIECH Group did not hold and did not acquire any shares of CIECH S.A.



#### **Agreements on potential changes in the shareholder structure**

In 2016, after the reporting date and prior to the date of publication of this report, no agreements were signed that could influence the changes in the proportions of shares held by current shareholders.

#### **Employee share schemes**

In 2016, there were no employee share schemes offered in the CIECH Group.

#### **Number of shares of CIECH S.A. and other CIECH Group entities held by managers and supervisors of CIECH S.A.**

Mr Artur Osuchowski – Member of the Management Board of CIECH S.A., held 65,195 shares of CIECH S.A. as at 31 December 2016. Other Management Board Members of CIECH S.A. and Supervisory Board Members of CIECH S.A. did not hold any shares of the Company.

Managers and supervisors of CIECH S.A. as at 31 December 2016 did not hold any shares in other companies of the CIECH Group.



**CORPORATE GOVERNANCE**



## 7 CORPORATE GOVERNANCE

### 7.1 SET OF CORPORATE GOVERNANCE PRINCIPLES APPLIED BY CIECH S.A.

This statement is a separate part of the Director's Report of the CIECH Group and CIECH S.A. for 2016.

In 2016, CIECH S.A. was subject corporate governance principles contained in the document adopted by the Resolution No 26/1413/2015 of the Supervisory Board of Giełda Papierów Wartościowych w Warszawie S.A. (Warsaw Stock Exchange) of 13 October 2015. This set is available at the website of Giełda Papierów Wartościowych w Warszawie S.A. (Warsaw Stock Exchange) at:

[https://www.gpw.pl/lad\\_korporacyjny\\_na\\_gpw](https://www.gpw.pl/lad_korporacyjny_na_gpw).

The Management Board of CIECH S.A. states that in the financial year ended 31 December 2016, CIECH S.A. and its authorities complied with the corporate governance rules contained in the document "Best Practice of GPW Listed Companies 2016", with exceptions described in item 7.2 below.

### 7.2 CORPORATE GOVERNANCE PRINCIPLES WHICH WERE NOT APPLIED BY THE ISSUER IN 2016

The Management Board of CIECH S.A. takes efforts to ensure the highest compliance with principles contained in the set "Best Practice of WSE Listed Companies 2016". In 2016, the Company departed from the application of 4 recommendations: IV.R.2., VI.R.1., VI.R.2., VI.R.3. and 16 detailed principles: I.Z.1.15., I.Z.1.16., I.Z.1.17., I.Z.1.20., II.Z.7., II.Z.8., II.Z.10.1., II.Z.10.4., IV.Z.2., IV.Z.7., IV.Z.8., IV.Z.9., IV.Z.12., IV.Z.13., V.Z.6., VI.Z.4.

The reasons for departing from the aforementioned recommendations and detailed principles are indicated below:

TABLE 49: CORPORATE GOVERNANCE PRINCIPLES NOT APPLIED BY CIECH S.A.

Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
<b>I. Information policy and communication with investors</b>		
I.Z.1.15.	A company should operate a corporate website and publish on it, in a legible form and in a separate section, in addition to information required under the legislation: <ul style="list-style-type: none"> <li>information about the company's diversity policy applicable to the company's authorities and key managers; the description should cover the following elements of the diversity policy: gender, education, age, professional experience, and specify the goals of the diversity policy and its implementation in the reporting period; where the company has not drafted and implemented a diversity policy, it should publish the explanation of its decision on its website;</li> </ul>	CIECH S.A. does not find it necessary to develop and apply the diversity policy with regard to the authorities of the Company and its key managers. The fact that particular persons serve management, supervisory and key functions in the Company's structure depends mainly on their competences and experience. In the opinion of CIECH S.A., these criteria allow to select candidates who guarantee the effective implementation of the strategy and, as a result, the Company's growth and benefits for shareholders.
I.Z.1.16.	<ul style="list-style-type: none"> <li>information on the planned broadcast of the General Meeting of Shareholders – no later than 7 days before the date of the meeting,</li> </ul>	CIECH S.A. does not post information on the planned broadcasts of general meetings of shareholders on its website, because such broadcasts are not made by the Company.



Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
I.Z.1.17.	<ul style="list-style-type: none"> <li>• grounds for draft resolutions of the General Meeting of Shareholders concerning the vital issues and decisions or issues and decision which may raise doubts of shareholders – on the date enabling the participants of the General Meeting of Shareholders to read them and pass the resolution having sufficient background,</li> </ul>	Such grounds will be published, if they are prepared in accordance with provisions of the law.
I.Z.1.20.	<ul style="list-style-type: none"> <li>• an audio or video recording of a general meeting.</li> </ul>	CIECH S.A. does not publish audio or video recordings of a general meeting on its website, because it does not record the proceedings in such form. The Company prepares and immediately publishes information required by the law on its website, among others, the contents of the resolutions taken at the General Meeting of Shareholders, enabling the investors to read the minutes.

**II. The Management Board and the Supervisory Board**

II.Z.7.	Provisions of Annexe I to the Commission Recommendation, referred to in the principle II.Z.4 shall apply with regard to tasks and operations of committees of the Supervisory Board. If the function of the Audit Committee is performed by the Supervisory Board, the above principles shall apply respectively.	The Supervisory Board comprises, among others, the Remuneration Committee composed of two members who do not meet the independence criterion. Both Members are highly qualified, thus the Remuneration Committee operates effectively. The independence criterion does not have an impact on the reliability of the actions implemented by the Committee.
II.Z.8.	The Chairman of the Audit Committee meets the independence criteria indicated in the principle II.Z.4.	The Chairman of the Audit Committee does not meet the independence criterion. Owing to professional qualifications and many years of experience, the Audit Committee operates effectively, and failure to meet the independence criterion does not have an effect on the actions performed by the Committee.
II.Z.10.1.	<p>In addition to its responsibilities laid down in the legislation, the supervisory board should prepare and present to the ordinary general meeting once per year the following:</p> <ul style="list-style-type: none"> <li>• an assessment of the company's standing including an assessment of the internal control, risk management and compliance systems and the internal audit function; such assessment should cover all significant controls, in particular financial reporting and operational controls;</li> </ul>	The assessment of the Supervisory Board refers to operations of control systems, risk management, compliance (in implementation phase) and operations of the internal audit function in CIECH S.A., but not in the company itself. The standing of CIECH S.A. is presented in the financial statements, assessed by the supervisory board.
II.Z.10.4.	<ul style="list-style-type: none"> <li>• an assessment of the rationality of the company's policy referred to in recommendation I.R.2 or information about the absence of such policy.</li> </ul>	The sponsorship and charity activities performed by CIECH have no significant effect on the operational and financial situation of the Company. In the Company's opinion, the Supervisory Board does not have to prepare and present the assessment of the rationality of the policy, referred to in the recommendation I.R.2.

**IV. General Meeting of Shareholders and relations with shareholders**

IV.R.2.	If justified by the structure of shareholders or expectations of shareholders notified to the company, and if the company is in a position to provide the technical infrastructure	In the opinion of CIECH S.A., the shareholder structure is dispersed, but this does not justify holding general meetings using electronic communication
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Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
	necessary for a general meeting to proceed efficiently using electronic communication means, the company should enable its shareholders to participate in a general meeting using such means, in particular through: 1) real-life broadcast of the general meeting; 2) real-time bilateral communication where shareholders may take the floor during a general meeting from a location other than the general meeting; 3) exercise of the right to vote during a general meeting either in person or through a plenipotentiary.	means. In the opinion of CIECH S.A., the benefits of holding the meetings in such manner do not outweigh the risks it entails (e.g. no guarantee of complete security using IT systems). The Company will cyclically verify the ability to adapt to the above recommendations and does not exclude a change in this respect.
IV.Z.2.	If this is justified by the shareholder structure of the Company, the Company ensures a generally available real-time broadcast of the proceedings of the general meeting of shareholders.	In the opinion of CIECH S.A., the shareholder structure is dispersed, but this does not justify the necessity to ensure the generally available real-time broadcast of the proceedings of the general meeting of shareholders.
IV.Z.7.	A break in the general meeting of shareholders may take place only in specific situations, each time indicated in the grounds for the resolution on the break order, prepared on the basis of reasons presented by the shareholder applying for the break.	In accordance with the applicable law, the break in the proceedings is decided by the vote of shareholders and this is their only instruction. Thus CIECH S.A. may not guarantee the application of the above principle each time.
IV.Z.8.	The resolution of the general meeting of shareholders on the order of a break explicitly indicates the date of resuming the proceedings, whereas this date may not form an obstacle for most shareholders, including the minority shareholders, to participate in the proceedings.	In accordance with the applicable law, the date of resuming the proceedings of the general meeting of shareholders is decided by vote of shareholders. Thus CIECH S.A. may not guarantee the application of the above principle each time.
IV.Z.9.	The Company is committed to assure that draft resolutions of the general meeting of shareholders contained the grounds, if it helps the shareholders to pass the resolution having sufficient background. If a particular item is listed on the agenda of the general meeting of shareholders on demand of the shareholder or shareholders, the Management Board or the chairman of the general meeting of shareholders asks for the grounds of the proposed resolution. In vital cases or in cases which may raise doubts of shareholders, the Company will submit the grounds, unless it will otherwise provide the shareholders with information which allow passing the resolution having sufficient background.	CIECH S.A. is committed to guarantee that in justified cases draft resolutions of the general meeting of shareholders will comprise the grounds. However, this may not be possible, for example, if the item is put on the agenda of the general meeting of shareholders by a shareholder who submitted the draft resolution without grounds, the Management Board of CIECH S.A. may not be able to submit the justification unknown to it. Therefore, the Management Board of CIECH S.A. may not guarantee that this principle will always be applied.
IV.Z.12.	The Management Board should provide the participants of the general meeting of shareholders with the financial performance of the Company and other significant information contained in the financial statements to be approved by the general meeting.	Pursuant to the applicable law, CIECH S.A. prepares the financial statements comprising information material in the opinion of the Management Board. Documents are public (available, among others, at <a href="http://ciechgroup.com">ciechgroup.com</a> website) and the participants of the general meeting may read them. Additionally, the concept of "other material information" is too vague to declare the application of this principle.
IV.Z.13.	In the case of a demand by the shareholder for information about the Company, the Management Board of the Company is required to reply to the shareholder's demand or inform it about the refusal to give this information no later than within 30 days, if the Management Board took such decision pursuant to Article 428 §2 or §3 of the Code of Commercial Partnerships and Companies.	In accordance with the applicable law, in the course of proceedings of the general meeting of shareholders, the Management Board provides the shareholder, on its demand, with information about the Company, but only if it is justified for the purposes of the assessment of the item on the agenda, pursuant to Article 428 of the Code of Commercial Partnerships and Companies. In the



Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
		opinion of CIECH S.A., if the Company undertakes to apply the aforementioned principle, it could lead to numerous frauds on the part of shareholders.
<b>V. Conflict of interest and transactions with related parties</b>		
V.Z.6.	In its internal regulations, the Company determines criteria and circumstances, which may lead to the conflict of interest in the Company, and the rules of conduct, if the conflict of interest occurs or is likely to occur. The internal regulations of the Company comprise, among others, the methods of preventing, identifying and solving conflicts of interest, and rules for excluding a member of the Management Board or the Supervisory Board from the participation in solving the issue subject to conflict of interest or at risk of such conflict.	Internal regulations of CIECH S.A. have not governed the above issues before. The Company is analysing the matter with regard to possible introduction of relevant provisions to the Regulations of the Supervisory Board and the Regulations of the Management Board, reflecting the provisions of the Law.
<b>VI. Remunerations</b>		
VI.R.1.	The remuneration of members of the company's governing bodies and key managers should follow the approved remuneration policy.	CIECH S.A. does not have a remuneration policy in the form of an official document. The remuneration of members of the company's governing bodies and key managers result from the applicable laws in conjunction with the company's Articles of Association and Supervisory Board Regulations. In the opinion of CIECH S.A., these regulations are sufficient.
VI.R.2.	The remuneration policy should be closely tied to the company's strategy, its short- and long-term goals, long-term interests and results, taking into account solutions necessary to avoid discrimination on whatever grounds.	CIECH S.A. does not have the remuneration policy, thus the principle may not applied.
VI.R.3.	If the supervisory board has a remuneration committee, principle II.Z.7 applies to its operations.	The Remuneration Committee is composed of Mr. Tomasz Mikołajczak and Mr Mariusz Nowak who do not meet the independence criterion. Owing to high qualifications and long experience of these two members, the Remuneration Committee operates in an efficient manner. The independence criterion does not have an impact on the reliability of the actions implemented by the Committee.
VI.Z.4.	The Director's Report of the Company comprises the report on the remuneration policy, including, at least: 1) general information about the remuneration system established in the Company, 2) information on the conditions and the remuneration level of each Management Board Member by fixed and variable components of remuneration, indicating key parameters for determining variable components of remuneration and rules for severance payments and other payments related to the termination of the employment contract, commission contract or another relationship of similar nature – separately for the Company and for each entity of the Capital Group, 3) information on non-financial components of remuneration due to particular Management Board members and key managers, 4) indication of significant changes, which were introduced in the remuneration policy in the last financial year, or information about their lack, 5) assessment of operation of the remuneration policy.	CIECH S.A. does not have the remuneration policy, thus the principle may not applied. However, in accordance with the applicable law, CIECH S.A. presents information on the remuneration of Management Board members and Supervisory Board members in its Director's Report.



Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
	neration policy with regard to the implementation of its goals, in particular the long-term increase in the value for shareholders and the stability of enterprise operations.	

### 7.3 INTERNAL CONTROL SYSTEM WITH REGARD TO THE PROCESS OF PREPARING FINANCIAL STATEMENTS

The Management Board of CIECH S.A. is responsible for the internal control system in the Company and its efficiency in the process of preparing financial statements and periodical reports developed and published in accordance with the Regulation of the Minister of Finance of 19 February 2009 (with subsequent amendments) on current and periodical information submitted by issuers of securities and on conditions for deeming equivalent information required by the law of a Non-Member State.

The Company's effective internal control and risk management system in the financial reporting process operates through:

- preparation of procedures specifying the principles and division of responsibilities for the development of financial statements, including the guarantee of their quality,
- establishment of the scope of reporting based on applicable International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) adopted for implementation in the European Union and related interpretations announced in the form of European Commission Regulations,
- development, implementation and supervision of the use of coherent accounting principles in the CIECH Group's companies,
- semi-annual reviews and annual audits of published financial statements of CIECH S.A. and the CIECH Group by an independent auditor,
- procedures for authorization of financial statements prior to their publication.

The Management Board member responsible for financial matters supervises the process of preparing the Company's financial statements and periodical reports from the subject-matter point of view. The Finance and Accounting Division is responsible for the organization of work related to the preparation of financial statements and reports directly to the Member of Management Board of CIECH S.A. The uniformity of standards applied in the Group guarantees that all companies apply uniform accounting principles of the CIECH Group and uniform consolidation principles in accordance with IAS/IFRS.

The scope of data disclosed in published periodical reports results from the Company's accounting records and additional information submitted by individual organizational units of CIECH S.A. Companies of the Capital Group submit the required data in the form of reporting packages for the purpose of developing consolidated financial statements of the Group. The scope of data disclosed within the Capital Group is defined by the disclosure obligations specified in IAS/IFRS and results from them. Monitoring of changes in IAS/IFRS is conducted on an ongoing basis in order to determine the necessity for updating the scope of reporting.

In accordance with applicable regulations, the Company submits its financial statements to be reviewed and audited by the independent registered auditor.

The Supervisory Board selects the registered auditor from a group of reputable auditing firms, guaranteeing high standard of services and the required independence. So far, agreements for carrying out the audit of financial statements by the registered auditor were concluded by the Supervisory Board with the selected auditor on an annual basis.

On 4 June 2013, the Supervisory Board of CIECH S.A. selected KPMG Audyt Spółka z ograniczoną odpowiedzialnością sp. k. with its registered office in Warsaw as the registered auditor to perform the half-year review and to audit the annual separate financial statements of CIECH S.A. and the consolidated financial statements of the CIECH Group for 2013, 2014 and 2015 with the possibility of termination of the contract after each year.

On 26 May 2015, the Supervisory Board of CIECH S.A. changed the registered auditor selected to audit the financial statements for 2015 by:

- the resignation from the services of KPMG Audyt sp. z o.o. sp. k. with its registered office in Warsaw, and
- the selection of PricewaterhouseCoopers Sp. z o.o. with its registered office in Warsaw to perform the half-year review and the audit of the separate financial statements of CIECH S.A. and the consolidated financial statements of the CIECH Group for 2015,

moreover, it selected PricewaterhouseCoopers Sp. z o.o. with its registered office in Warsaw to be the registered auditor and perform the half-year review and the audit of separate financial statements of CIECH S.A. and the consolidated financial statements of the CIECH Group for 2016 and 2017.

Procedures for authorization of financial statements prior are specified in the Company. Reports for 1<sup>st</sup> and 3<sup>rd</sup> quarter are not verified by the auditor, and prior to their publication, they are analysed by the Audit Committee of the Supervisory Board and approved by the Management Board. Semi-annual and annual periodical reports are submitted to the Supervisory Board and Company Shareholders after the conclusion of the appropriate review or audit by the auditor. Annual reports adopted by the Management Board of the Company, after being opined by the Audit Committee and assessed by the Supervisory Board, are approved by the General Meeting of Shareholders.

Prior to the publication of annual or semi-annual financial statements, conclusions from the audit or review of the financial statements are presented to the Audit Committee. Representatives of the Audit Committee analyse the results of the audit and review at closed meetings with the Company auditor. The registered auditor also presents a Letter to the Management Board, which contains recommendations for the Management Boards of Group Companies based on results of the audit or review of the financial statements in a given year. The recommendations from the auditor are discussed by the Audit Committee along with the management of the Finance and Accounting Division for the purpose of their implementation.

Financial data constituting the basis of financial statements and periodical reports comes from the finance and accounting system, where transactions are recorded in accordance with the Company's accounting policy (approved by the Management Board) on the basis of International Accounting Standards. The accounting records of CIECH S.A. are kept in the ERP integrated IT system. The modular structure of the system provides a transparent division of competences, coherence of operation records in ledgers, and inspection of reconciliation of the general ledger and subsidiary ledgers. The capabilities of the system allow it to adapt to changing accounting principles or other legal regulations on an ongoing basis. The system keeps full technical and operational documentation which is updated periodically pursuant to Article 10 of the Accounting Act of 29 September 1994.

The access to the informational resources of the IT system is limited by appropriate authorizations for authorized employees. The employees have access only to those areas of the system that they are concerned with. The access control is present at every stage, starting with the input of source data, through data processing and ending with the generation of output information.

The effectiveness of the control and risk management procedures in the process of preparing financial statements of CIECH S.A. and the CIECH Group may be seen in the form of the high quality of these statements, as confirmed by the opinions put forth by certified auditors from their auditing of the financial statements and by the high evaluations of the recipients of these statements.

The selection of the entity authorized to audit the financial statements of CIECH S.A. and the CIECH Group is the responsibility of the Company's Supervisory Board (after prior recommendation of the Audit Committee to the Supervisory Board), which has specified the following principles of Auditor selection for the purpose of ensuring the independence of the opinion:

- the entity authorized to audit financial statements may not conduct audits of the Company/Group for more than 5 subsequent years;
- the entity authorized to audit financial statements may again carry out audits of the Company/Group after at least 2 years have passed;
- a key registered auditor may not carry out financial revision of the Company/Group for a period of more than 5 subsequent years;
- a key registered auditor may again carry out financial revision of the Company/Group after at least 2 years have passed.

## 7.4 SHAREHOLDERS OF CIECH S.A. HOLDING SIGNIFICANT BLOCKS OF SHARES

To the best knowledge of the Company, as at the day of approving this report, entities holding significant blocks of shares (at least 5%) are the entities listed below:

TABLE 50: SHAREHOLDERS OF CIECH S.A. HOLDING SIGNIFICANT BLOCKS OF SHARES

Shareholder	Type of shares	Number of shares	Number of votes at the General Meeting of Shareholders	Share in the total number of votes at the General Meeting of Shareholders	Stake in share capital (%)
<b>KI Chemistry s. à r. l. with its registered office in Luxembourg*</b>	<b>Ordinary bearer</b>	<b>26,952,052</b>	<b>26,952,052</b>	<b>51.14%</b>	<b>51.14%</b>
TFI PZU Funds**	Ordinary bearer	6,428,681	6,428,681	12.20%	12.20%
Nationale-Nederlanden Otwarty Fundusz Emerytalny***	Ordinary bearer	3,000,000	3,000,000	5.69%	5.69%
Other	Ordinary bearer	16,319,176	16,319,176	30.97%	30.97%

\* in accordance with information dated 9 June 2014 provided by Shareholder under Article 77(7) and Article 69(1)(1) of the Act of 29 July 2005 on Public Offering and Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies (CR 26/2014).

\*\* in accordance with information dated 28 February 2017 provided by Shareholder under Article 70(1) of the Act on Public Offering (...) – purchase or disposal of a significant block of shares (CR 4/2017)

\*\*\* On the basis of the list of shareholders holding at least 5% of votes at the Ordinary Meeting of Shareholders of CIECH S.A. on 16 June 2016, CR 22/2016 prepared and published pursuant to Article 70(3) of the Act on Public Offering and Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies.

## 7.5 SHAREHOLDERS WITH SPECIAL CONTROL RIGHTS

As at the publication date of the financial statements, all shares of CIECH S.A. are ordinary bearer shares. The Articles of Association of CIECH S.A. does not provide for any special control rights for the shareholders.

## 7.6 RESTRICTIONS CONCERNING THE EXERCISE OF THE VOTING RIGHTS

In CIECH S.A. there are no restrictions concerning the exercise of the voting rights, such as the voting rights of holders of a specific part or number of votes, time limits concerning the exercise of voting rights, or regulations, according to which, in the case of company's cooperation, equity rights related to securities are separated from the securities themselves. Restrictions concerning the exercise of voting rights in the Company may result only from generally applicable provisions of the law.

## 7.7 RESTRICTIONS CONCERNING THE TRANSFER OF OWNERSHIP RIGHTS TO THE ISSUER'S SECURITIES

The Articles of Association of CIECH S.A. do not impose any restrictions concerning the transfer of ownership rights to securities issued by the CIECH S.A.

## 7.8 DESCRIPTION OF RIGHTS FOR MAKING DECISIONS ON THE ISSUE OR REDEMPTION OF SHARES

The rights of managers are specified by the provisions of the Code of Commercial Partnerships and Companies and Articles of Association of the Company. Managers do not hold specific rights to take the decision about the issue or redemption of shares.

## 7.9 PRINCIPLES OF AMENDING THE ISSUER'S ARTICLES OF ASSOCIATION

The amendment of Articles of Association of the Company is introduced under the principles specified in the provisions of the Code of Commercial Partnerships and Companies. Articles of Association do not include detailed regulations with regard to the above regulations. The amendment of Articles of Association requires a resolution of the Company's General Meeting of Shareholders and an entry in the Register of Entrepreneurs. The resolution of the General Meeting of Shareholders concerning the amendment of the Company's Articles of Association is passed by a majority of three quarters of votes. After the amendment to Articles of Association is entered into the Register of Entrepreneurs, CIECH S.A. makes a current report on this, subject available to the public. The Company's General Meeting of Shareholders may authorize the Supervisory Board to determine the consolidated text of Articles of Association.

## 7.10 CORPORATE BODIES OF CIECH S.A. AND PRINCIPLES GOVERNING THEIR OPERATION

### General Meeting of Shareholders of CIECH S.A.

The operations of the General Meeting of Shareholders of CIECH S.A. and its rights are governed by the Company's Articles of Association and the Regulations of the General Meeting of Shareholders of CIECH S.A. These documents are available on the corporate website of CIECH S.A. <http://ciechgroup.com/relacje-inwestorskie/walne-zgromadzenie/>.

The General Meeting of Shareholders of CIECH S.A. is held as ordinary or extraordinary meeting in accordance with the provisions of the Code of Commercial Partnerships and Companies and Articles of Association under the principles specified in the Regulations of the General Meeting of Shareholders. The General Meeting of Shareholders is convened in a manner and under principles specified in the generally applicable provisions. Announcement on convening the General Meeting of Shareholders is posted on the Company's website and communicated in a current report. The announcement is to be made at least twenty six days before the date of the General Meeting of Shareholders. The Annual General Meeting is convened by the Company's Management Board. The Supervisory Board may convene the Annual General Meeting if the Management Board does not convene it by the fixed date. The following are entitled to the right to convene an Extraordinary General Meeting:

- the Management Board
- the Supervisory Board if it deems its convening as necessary,
- Shareholders representing at least half of the share capital or at least half of the total number of votes in the Company.

A shareholder or shareholders representing at least 1/20 of the share capital may demand the convening of an Extraordinary General Meeting and may put specific items on the agenda of this Meeting. The demand should be reported to the Management Board in writing or in electronic form to the e-mail address indicated on the Company's website, along with substantiation. A shareholder or shareholders representing at least 1/20 of the share capital may:

- demand the inclusion of specific items in the agenda of the next General Meeting – such demand should be reported to the Management Board in writing or in electronic form to the e-mail address indicated on the Company's website, no later than twenty one days before the fixed date of the Meeting and is to contain substantiation or a draft of the resolution concerning the proposed item on the meeting agenda;
- submit drafts of resolutions concerning the items put on the agenda of the General Meeting or items that are to be included to the meeting agenda to the Company in writing or by means of electronic communication to the e-mail address indicated on the Company website before the date of the General Meeting.

According to the Regulations of the General Meeting, the Meeting may be cancelled if its convening encounters extraordinary obstacles (forces majeure) or if it is apparently aimless. Cancellation of a Meeting, the agenda of which contains specific items included upon the request of authorized entities, or which was convened upon such a request, is only possible with the consent of the requesting parties. Cancellation takes place in the same way as convening, in such a way that shareholders will be subject to the least negative effects. Changing of the date of the Meeting takes place in the same way as its cancellation, even if the proposed meeting agenda is not subject to change.

**According to the Statute of CIECH S.A. the competences of the General Meeting include in particular:**

1. consideration and approval of the Management Board's report on Company's activities, the financial statements for the previous year, the consolidated financial statements and the report on the capital group's activities, in which the parent company is the Company, as long as the Company prepares them, and the annual written statement of the Supervisory Board, as well as acknowledging the fulfillment of duties by Company's bodies;
2. taking resolutions on the distribution of profit or covering the losses;
3. the adoption of Regulations of the General Meeting;
4. the amendment of Articles of Association of the Company;
5. the amendment of the scope of operations of the Company;
6. the sale or lease of the enterprise or of its organized part and establishment of a limited property right on it;
7. the appointment and dismissal of the Supervisory Board members and determination of the amount of remuneration for the Supervisory Board Supervisory Board Members;
8. the increase or reduction in the share capital;
9. passing resolutions concerning the bonds issue, including bonds exchangeable for shares;
10. the merger of the Company with other companies, division and transformation of the Company;
11. dissolution of the Company;
12. expressing the consent for the acquisition of shares by the Company for the purposes of redemption and establishing the conditions of share redemption;
13. passing other resolutions provided for in the provisions of the law or in these Articles of Association.

According to § 21(2)(3) of the Articles of Association of CIECH S.A., the items raised at the General Meeting of CIECH S.A. are considered and opined on by the Supervisory Board of CIECH S.A.

Shareholders may participate in the General Meeting and exercise the voting right in person or through a proxy. The power of attorney should be granted in writing or in electronic form. A shareholder granting or revoking the proxy for participation in the General Meeting in electronic form will inform the Company by e-mail to the address [wza@ciechgroup.com](mailto:wza@ciechgroup.com).

According to the Regulations of the General Meeting of CIECH S.A., the General Meeting is attended by the participants of the General Meeting and members of the Management Board and the Supervisory Board, in composition which allows them to provide factual answers to questions asked during the Meeting. In addition, the following persons may take part in the Meeting:

- experts, advisers and Company's employees, the presence of which is deemed purposeful by the Management Board, Supervisory Board or the Chairman,
- persons servicing the Meeting,
- representatives of mass media, as long as the Meeting does not object to their presence by way of resolution,
- persons referred to Article 370 § 3 and Article 395 § 3 sentence 2 of the Code of Commercial Partnerships and Companies.

The Chairman of the Meeting is selected from the participants of the Meeting. The Chairman directs the course of the Meeting in accordance with the adopted meeting agenda, provisions of the law, Articles of Association and Regulations of the General Meeting, ensuring an efficient course of the Meeting with respect to the rights and interests of all Shareholders.

**The competences of the Chairman of the General Meeting include in particular:**

1. keeping watch over adherence to the regulations, including the Regulations of the General Meeting by participants of the Meeting and if necessary, making of the appropriate order decisions in this respect,

2. opening discussions on individual items on the meeting's agenda, giving the floor,
3. taking the floor in the case of statements:
  - a) exceeding the established time limit for statements or replicas, or
  - b) on items not included in the meeting's agenda, or
  - c) containing insulting content,
4. closing discussions on individual items of the meeting's agenda,
5. closing the lists referred to in § 42(4) of General Meeting Regulations of CIECH S.A. (list of candidates for members of the Management Board, including the President of the Management Board or Supervisory Board),
6. establishing – on the basis of accepted applications – the contents of draft resolutions of the Meeting,
7. calling for votes, watching over the correct course of voting, signing of all documents containing voting results and announcement of voting results,
8. issuing order dispositions applicable in the meeting place,
9. settling procedural doubts and clarification – if necessary, on the basis of obtained legal opinions – of legal and regulatory matters,
10. stating the conclusion of the meeting's agenda,
11. adjourning the Meeting after the conclusion of the meeting agenda,
12. making other decisions of an order nature.

The Chairman may independently order breaks at the meeting other than the breaks ordered by the Meeting pursuant to Article 408 § 2 of the Code of Commercial Partnerships and Companies. Breaks should be ordered by the Chairman in such a way, that the Meeting can be concluded on the day of its commencement.

The Chairman may introduce the consideration of an application and making of a resolution on appointing an extraordinary general meeting to the meeting agenda, as well as other ordinal matters, including in particular:

1. admission to the meeting place of the persons referred to in § 8 (2) p. 1–3 in General Meeting Regulations of CIECH S.A,
2. application for a change in the order of considering matters contained in the meeting agenda,
3. selection of commissions provided for in the Regulations.

Participants of the Meeting may place substantive applications concerning the matters included in the meeting's agenda, ordinal applications and an application for convening an extraordinary general meeting.

1. Substantive applications, placed in a written form, may concern:
  - amendments to draft resolutions,
  - removal of a specific issue from the agenda,
  - rearrangement of the agenda,
  - appointments and dismissals of Members of the Management Board and the Supervisory Board.
2. Ordinal applications, placed in a written form, include in particular applications concerning:
  - closing of the speaker list,
  - postponement or closure of discussions,
  - reducing or extending the speaking time,
  - voting without holding the discussion,
  - ordering breaks in the session,
  - order in which motions are adopted,
  - closing the list of candidates for the election, if the number of candidates exceeds the number of vacancies.

The Articles of Association do not provide for the possibility of participating and expressing opinion by means of electronic communication in the course of the Meeting.

Drafts of resolutions proposed for acceptance by the Meeting are uploaded to the Company website. Resolutions of the CIECH S.A. General Meeting are passed by absolute majority of votes unless the regulations of the Code of Commercial Partnerships and Companies, provisions of other acts or the Articles of Association provide for other procedures for the adoption of resolutions.

The Regulations of the General Meeting of Shareholders do not provide for the possibility of voting by correspondence as referred to in Article 411 of the Code of Commercial Partnerships and Companies.

Voting is carried out as open voting. Secret ballot is ordered:

1. during elections,
2. for applications for dismissal/appointment of members of Company's bodies,
3. for applications for dismissal of Company liquidators,
4. for applications for holding accountable the persons specified in items 2) and 3),
5. in personnel matters,
6. upon the demand of even one of the participants of the Meeting.

The right to demand secret ballot is not applicable when resolutions are made on order matters. The Meeting may repeal the secret of ballot in matters concerning the selection of the commissions appointed by it.

### Supervisory Board

Pursuant to § 20(1) of the Company's Articles of Association, the Supervisory Board consists of five to nine Members appointed by the General Meeting. The joint term of the Supervisory Board Members lasts three years.

The Supervisory Board of CIECH S.A. operates on the basis of the regulations passed by the Supervisory Board and approved by the General Meeting. The Supervisory Board appoints the Chairman of the Supervisory Board from among its members and, if necessary, his deputy and secretary. The Supervisory Board supervises the Company's operations.

The competences of the Supervisory Board include:

1. the assessment of the Management Board's report on the Company's activity and financial statements for the previous financial year and the consolidated financial statements and the Board's report on the activity of the Group, in which the Company is a parent company as long as the Company develops them in respect of their compliance with ledgers and documents and the factual state and Management Board's motions, concerning the distribution of profit or covering of losses and the submission to the General Meeting of an annual written report on the results of these assessments;
2. giving opinions on the Company's activity programs developed by the Management Board;
3. considering and giving opinions on matters that are to be the subject of resolutions of the General Meeting;
4. adoption of the Supervisory Board's regulations;
5. approval of the Management Board's regulations;
6. appointment and dismissal of the Management Board Members, including the President of the Management Board;
7. determination of rule for remuneration and their levels for the Management Board Members, including the President of the Management Board;
8. selection of registered auditor to carry out an audit of the Company's financial statements and of the consolidated financial statements of the Capital Group;
9. expression of consent to acquire or sell real estates, perpetual usufruct or share in real estate;
10. expression of consent for disposal of rights or assuming liabilities exceeding the amount of PLN 20,000,000 (in words: twenty million zlotys) excluding:
  - a) purchase and sales of raw materials, intermediate goods, and products related to the operations of the Company;
  - b) assuming liabilities related to the main operations of the Company in the amount not exceeding 10% of the Company's equity;
  - c) activities requiring the consent of the General Meeting.
11. giving opinions about the candidates for the members of supervisory boards of companies, in which the Company is a partner or a shareholder;
12. approving drafts of annual business plans and budget of the Company, Capital Group and their amendments;
13. expressing the consent to charge assets of the Company with the amount (sum of security) exceeding PLN 10,000,000 (in words: ten million zlotys), in the form of one-off transaction or a series of related transactions;
14. expressing the consent to grant sureties and guarantees by the Company to entities other the subsidiaries within the meaning of the Code of Commercial Partnerships and Companies;
15. expressing the consent to make the payment of interim dividend;

16. expressing the consent to exercise by the Company of the ownership rights awarded to it as the partner and shareholder of the subsidiary, to the extent determined in item 10 above.

The Supervisory Board passes resolutions with an absolute majority of votes in the presence of at least half of the members of the Supervisory Board and in the event of a tied vote the Supervisory Board Chairman's vote is decisive. According to the Articles of Association of CIECH S.A., the Supervisory Board may pass resolutions without convening a meeting, by way of written vote or vote by means of direct communication at a distance, however in order for the adoption of a resolution to be effective in such a case, it is necessary to inform all Supervisory Board members of the content of the draft of the resolution. Supervisory Board Members may participate in the adoption of resolutions by the Supervisory Board by casting their vote in writing through another Supervisory Board Member. Casting of a vote in writing may not be concerned with matters introduced to the agenda during a meeting of the Supervisory Board.

Supervisory Board meetings are held as needed, however, no less frequently than once per quarter.

Every year, the Supervisory Board of CIECH S.A. submits a report on the Activity of the Supervisory Board for the given financial year to the Annual General Meeting of the Company. The report contains a detailed discussion on the activity of the Supervisory Board, discussion on the implementation by the Company's Management Board of action plans, the assessment of the Company's Management Board report on the activity of the Company and the CIECH Group, financial statements of the Company and the CIECH Group and the motion of the Company's Management Board concerning division of profits or covering of losses.

Having in mind of the highest standards and best practices and in order to provide the possibility for reliable assessment of the Company by shareholders, the Supervisory Board of CIECH S.A. makes a concise assessment of the situation of CIECH S.A. This assessment is presented annually during the Annual General Meeting of the Company, at a time allowing CIECH S.A.'s shareholders to become acquainted with the document.

As at 1 January 2016 the Supervisory Board performed its function in the following composition:

- Sebastian Kulczyk – Chairman of the Supervisory Board
- Tomasz Mikołajczak – Vice Chairman of the Supervisory Board
- Wojciech Stramski – Secretary of the Supervisory Board
- Piotr Augustyniak
- Mariusz Nowak
- Artur Olech.

On 6 March 2016, Mr. Wojciech Stramski resigned from the position of the member of the CIECH S.A.'s Supervisory Board. On 7 March 2016, the Extraordinary General Meeting of CIECH S.A. appointed a new member of the Supervisory Board, Mr. Dominik Libicki.

As at 31 January 2016 the Supervisory Board performed its function in the following composition:

- Sebastian Kulczyk – Chairman of the Supervisory Board
- Tomasz Mikołajczak – Vice Chairman of the Supervisory Board
- Piotr Augustyniak
- Dominik Libicki
- Mariusz Nowak
- Artur Olech.

The body responsible for establishing the principles and levels of remuneration for the Supervisory Board members is the General Meeting. Detailed information on amounts of remuneration paid to particular Members of the Supervisory Board is provided in note 9.3.4 to the Consolidated Financial Statements of the CIECH Group for 2016 and in note 9.3.4 to the Financial Statements of CIECH S.A. for 2016.

Detailed information about CIECH S.A. Supervisory Board Members is presented below.

TABLE 51: SUPERVISORY BOARD OF CIECH S.A.

<b>SEBASTIAN KULCZYK</b> Chairman of the Supervisory Board of CIECH S.A. since 8 October 2015	<p>A graduate in management and marketing from the Faculty of Law of the Adam Mickiewicz University in Poznań. He studied at the London School of Economics.</p> <p>Since 2010 he has been associated with Kulczyk Investments Group, and since December 2013 he has been Chief Executive Officer of Kulczyk Investments S.A.</p> <p>Sebastian Kulczyk does not conduct any activities that are competitive to the business of CIECH S.A.</p>
<b>TOMASZ MIKOŁAJCZAK</b> Deputy Chairman of the Supervisory Board of CIECH S.A. since 10 July 2014, Supervisory Board Member since 7 July 2014.	<p>Since 1980, a private investor, who has conducted his business activity mainly through a holding company Towarzystwo Inwestycji Kapitałowych S.A., through which short- and medium term investments of the private equity type are made. He mainly invests in the sectors of real estate, telephony and IT, construction and industrial automatics, as well as in companies dealing with infrastructure design and construction. Since the beginning of his activity, Tomasz Mikołajczak has implemented several privatization processes as a strategic investor, he also participated in acquisitions of many companies and in restructuring processes. He privately also invests in the capital market and in financial instruments. He is a tutor and promoter of many young entrepreneurs, who effectively operate in many areas of the Polish market. A member of Supervisory Boards of Kulczyk Investments S.A., Kulczyk Holding S.A., Polenergia S.A. and Polenergia Holding S.à.r.l., as well as the Chairman of the Audit Committee of the Polish Business Roundtable.</p> <p>Tomasz Mikołajczak does not conduct any activities that are competitive to the business of CIECH S.A.</p>
<b>PIOTR AUGUSTYNIAK</b> Supervisory Board Member of CIECH S.A. since 7 July 2014	<p>He graduated from the University of Warsaw, receiving master's degrees in English Philology (1990) and Management (1994). In the years 1991-1992, he worked as a translator for New York Times Warsaw.</p> <p>Currently, he is the member of the supervisory boards in the following publicly traded companies: Asseco Poland S.A., Asseco Data Systems S.A., CIECH S.A., Mercor S.A., PZ Cormay S.A. In 2013-2014, he held similar position in Kopex S.A.</p> <p>In the years 1994-2011, he worked for Enterprise Investors (EI). Acting as EI's partner (2006-2011), he was responsible for monitoring, conducting company IPOs on the Warsaw Stock Exchange (WSE), sale of significant company shareholdings from EI's portfolio through a public offering or a private placement. He represented EI as the member of the supervisory boards of the following companies: Polfa Kutno S.A., Ergoapaparatura S.A., Elektrobudowa S.A., Wizów S.A., Sfinks S.A., CSS S.A., Bauma S.A., Comp Rzeszów S.A. (currently Asseco Poland S.A.), Agros Nova S.A., Teta S.A., Opoczno S.A., AB S.A., Siveco Romania S.A. (Romania), STD Donivo a.s. (Slovakia), AVG Technologies N.V. (the Netherlands).</p> <p>In 2001, he served as the President of the Management Board of Ergoapaparatura S.A., being delegated to this position as part of his work for EI in order to implement a restructuring program in that company.</p> <p>From 1993 to 1994, he worked for the Ministry of Privatisation, successively at the positions of a Project Manager and Privatisation Team Manager. From 1992 to 1993, he worked in the Foundation for Ownership Transformations at the Ministry of Privatisation.</p> <p>He is entered on the list of recommended candidates for professional members of supervisory boards by the Polish Institute of Directors.</p> <p>Piotr Augustyniak does not conduct any activities that are competitive to the business of CIECH S.A.</p>
<b>DOMINIK LIBICKI</b> Supervisory Board Member of CIECH S.A. since 7 March 2016	<p>A graduate from the Faculty of Environmental Protection at the Wrocław University of Technology.</p> <p>Currently, he is the member of the supervisory boards in the following companies: Polenergia S.A., Serinus Energy Inc. and Insignis TFI S.A.</p> <p>In 2001-2015, he held the function of the President of the Management Board of Cyfrowy Polsat. He was also a vice president of the management board of Polkomtel and a member of the supervisory board of Telewizja Polsat. In 2005-2006, he was a member, and in 2006-2008, a vice-chairman of the supervisory board of Polska Telefonia Cyfrowa (operator of the Era mobile network, currently T-Mobile). In 1999-2011, he was a member of the supervisory board of Polskie Media, which was a broadcaster of TV4 and TV6 channels. He was the President of Private Media Employer Union operating within the framework of</p>

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	<p>the Polish Confederation of Private Employers, "Lewiatan". Member of the Management Board of Kulczyk Investments.</p> <p>Dominik Libicki does not conduct any activities that are competitive to the business of CIECH S.A.</p>
<p><b>MARIUSZ NOWAK</b> Supervisory Board Member of CIECH S.A. since 7 July 2014</p>	<p>A graduate from the University of Szczecin, the Faculty of Economy and the Faculty of Cybernetics and Computer Science. He holds an MBA from the Ecole Nationale des Ponts et Chaussees in Paris.</p> <p>In 2012, he was hired by Kulczyk Investments and Kulczyk Holding. Previously, from March 2010, he served as Financial Director of Kulczyk Pon Investments and President of the Management Board of Magro International. In 1991-2010, he worked in various positions for Wavin Group, in which he was appointed Managing Director of Wavin Ekoplastik in 2007. Mariusz Nowak is member of several Supervisory Boards — PEKAES S.A., PEP S.A., Autostrada Wielkopolska S.A., Autostrada Wielkopolska II S.A., Autostrada Eksploatacja S.A. and AWSA Holland II BV.</p> <p>Mariusz Nowak does not conduct any activities that are competitive to the business of CIECH S.A.</p>
<p><b>ARTUR OLECH</b> Supervisory Board Member of CIECH S.A. since 7 July 2014</p>	<p>A graduate from the Faculty of Law at the University of Warsaw and from the Faculty of Finance and Banking at the Warsaw School of Economics.</p> <p>From October 2016 the President of the Management Board of technology and consulting company Hipro Consulting.</p> <p>From December 2014 to August 2016 the President of the Management Board of Pocztove Towarzystwo Ubezpieczeń na Życie S.A. In Pocztove Towarzystwo Ubezpieczeń Wzajemnych - Vice President of the Management Board since September 2014, p.o. President of the Management Board since March 2015, President of the Management Board from August 2015 to August 2016. From September 2014 to February 2015 the President of the Management Board of Pocztove Życie Sp. z o.o. (Currently Centrum Rozliczania Ubezpieczeń Sp. z o.o.). From October 1998 to February 2014, a member of the Management Board of the Generali Group. In 2010–2014, the President of the Management Board, in 2008–2010, the Vice President of the Management Board, responsible for life and pension insurance. In 2003–2008, Member of the Management Board. In 1997–1998, Director of Volkswagen Bank Polska/Volkswagen Leasing Polska-Warszawa. In 1996–1997, employed as an analyst by the Polish Institute of Management (PIM Sp. z o.o.). In 1994–1997, employed in the position of a Foundation Project Manager by CASE Consulting (Fundacja Centrum Analiz Społeczno-Ekonomicznych) in Warsaw. He attended numerous training sessions for top management, including training at the Harvard Business School, Kellogg School of Management and Chicago GSB. In 2012, he was granted the Personal Award for Top Manager in Insurance Industry (by Wprost magazine). Responsible for the project entitled: "Exit Processes in Transitional Economy" on behalf of the World Bank, implemented within CASE Consulting (Fundacja Centrum Analiz Społeczno-Ekonomicznych) under the supervision of Prof. Leszek Balcerowicz.</p> <p>Artur Olech does not conduct any activities that are competitive to the business of CIECH S.A.</p>

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#### Committees of the Supervisory Board of CIECH S.A.

The following Committees operate within the framework of the Supervisory Board of CIECH S.A.: Audit Committee of the Supervisory Board of CIECH S.A. and Remuneration Committee of the Supervisory Board of CIECH S.A.

##### Audit Committee

The Audit Committee of the Supervisory Board of CIECH S.A. was appointed by Resolution No 57/IV/2005 from 16 February 2005. The Committee is an advisory and consultative body to the Supervisory Board and is appointed to improve the effectiveness of the supervision of the correctness of financial reporting of the Company, financial results of the Company, effectiveness of internal control, including internal audit and risk management, exercised by the Supervisory Board.

According to the Audit Committee Regulations the tasks of the Audit Committee include in particular:

- monitoring the financial reporting process
- monitoring the effectiveness of the internal control system
- monitoring the effectiveness of the internal audit system
- monitoring the effectiveness of the risk management system
- monitoring the performance of financial audit activities
- monitoring of the independence of the auditor and the entity authorised to audit the Company's financial statements.

The Audit Committee of the Supervisory Board of CIECH S.A. submits an annual report on its activity which is a part of the Report on the activity of the Supervisory Board of CIECH S.A. provided to Shareholders during the Annual General Meeting of CIECH S.A.

Tasks of the Audit Committee include in particular:

- 1) assessment of the effectiveness of internal control and risk management systems that exist in the Company and presentation of conclusions and recommendations to the Supervisory Board from their evaluation, including the validity of modification, and informing the Supervisory Board of any detected irregularities in the systems, or risks related to their organization and operation;
- 2) preliminary assessment of documents concerning internal control and risk management systems in the Company submitted to the Supervisory Board
- 3) annual review of the internal audit schedule
- 4) assessment of the results of internal controls, including internal audits, and schedules of elimination of errors detected in selected areas
- 5) examination of reports of the Company's internal auditors and the Management Board's responses to their findings, including an assessment of independence of the internal auditors
- 6) recommendation to the Supervisory Board of the statutory auditor to be appointed by the Supervisory Board to audit/review the Company's financial statements and consolidated financial statements of the Company's capital group, and assessment of proposed conditions in the statutory auditor's contracts, including the auditor's remuneration
- 7) assessment of the statement confirming the independence of a registered audit company
- 8) recommendation to the Supervisory Board of the rule of changing the registered audit company
- 9) reviews of material agreements and transactions with related parties
- 10) preliminary assessment of the annual financial plan prepared by the Management Board as well as of the report on its implementation
- 11) preliminary assessment of the Directors' Report and annual financial statements of the Company concerning their conformity with the books and documents, as well as with the factual state
- 12) preliminary assessment of the consolidated financial statements of the Company's capital group and Directors' Report on activities of the Company's capital group
- 13) preliminary assessment of motions regarding the distribution of profit/coverage of loss
- 14) presenting to the Supervisory Board the conclusions and recommendations resulting from the report and opinion of the statutory auditor on the financial statements of the Company and consolidated financial statements of the Company's capital group, in particular in the event the statutory auditor refuses to express its opinion, expresses a negative opinion or qualifies its opinion on the financial statements
- 15) analysis of the letter to the Management Board prepared by the Company's statutory auditors.

As at 1 January 2016, the composition of Audit Committee was as follows:

- Wojciech Stramski – Chairman of the Committee
- Piotr Augustyniak – Committee Member
- Artur Olech – Committee Member.

As at 31 December 2016, following the resignation of Mr Wojciech Stramski, the composition of the Audit Committee was as follows:

- Mariusz Nowak – Chairman of the Committee
- Piotr Augustyniak – Committee Member
- Artur Olech – Committee Member.

#### Remuneration Committee of the Supervisory Board of CIECH S.A.

The Remuneration Committee was appointed by Resolution No 66/IV/2005 of the Supervisory Board of CIECH S.A. According to the Remuneration Committee Regulations, the primary task of the Committee is to advise the Supervisory Board on

matters related to the establishment of the principles and amounts of remuneration of the CIECH S.A.'s Management Board members.

In particular the Committee's tasks include:

- presenting the Supervisory Board with proposals of the principles of remuneration of CIECH S.A.'s Management Board members, which should account for all forms of remuneration, in particular as regards: base remuneration, remuneration system based on results, retirement system and severance payments
- presenting the Supervisory Board with regarding the amounts of remuneration for each CIECH S.A.'s Management Board member
- presenting the Supervisory Board with drafts of agreements, regulating the performance of responsibilities CIECH S.A.'s Management Board members
- discussion (with or without the involvement of the Management Board) of all problems or reservations that may arise in matters related to the remuneration of CIECH S.A.'s Management Board
- consideration of all other matters to which the Committee or Supervisory Board has paid attention
- informing the Supervisory Board of all significant matters in the general context of the Committee's activity.

The Remuneration Committee of the Supervisory Board of CIECH S.A. submits an annual report on its activity, which is a part of the Report on the activity of the Supervisory Board of CIECH S.A., provided to Shareholders during the Ordinary General Meeting of CIECH S.A.

As at 1 January 2016, the composition of the Remuneration Committee was as follows:

- Tomasz Mikołajczak – Chairman of the Committee
- Mariusz Nowak – Committee Member

As at 31 December 2016, the Remuneration Committee performed its functions in an unchanged composition.

### **Management Board**

According to § 23(1) of the Company's Articles of Association, the Management Board consists of at least two members. The Supervisory Board appoints the Chairman of the Management Board and other Board members. The Supervisory Board determines the number of Board Members. The joint term of the Management Board members lasts three years.

The seat of a Board Member expires at the latest with the day on which a General Meeting is held approving the financial statements for the last full financial year of the Member's function as a Board Member. The expiration of a Member's seat also takes place as a result of death, resignation or dismissal from the Board.

The Management Board's competences include all matters and economic decisions and other decisions not reserved by the regulations of the Code of Commercial Partnerships and Companies or the stipulations of the Company's Articles of Association as belonging solely to the General Meeting or Supervisory Board.

Two Board Members jointly or one Board member together with an proxy are authorized to make declarations of will and to sign them on behalf of the Company.

The current joint term of the Company's Management Board commenced on 22 May 2013. The Company applies the policy of internal distribution of powers among Board Members, in terms of managing the affairs of the Company. A detailed description of segregation of powers of individual Board Members has been specified in the resolution of the Management Board. Within the scope of ordinary activities of the Company, each Board Member is obliged and authorised to independently manage the Company's affairs falling under his/her powers, in accordance with the distribution determined by the Management Board.

The Management Board of CIECH S.A. operates on the basis of the regulations passed by the Management Board and approved by the Supervisory Board. Resolutions of the Management Board are adopted by a absolute majority of votes cast. In the event of equal split of votes, the vote of the President of the Management Board prevails. In accordance with the principles of best practices, Management Board Regulations state that in the event of a conflict of the Company's interest with the personal interests of a Board Member, his spouse, relatives or kinsman of the second degree or persons with whom he has a personal relationship, he should abstain from participation in the settlement of such matters, and request for this to be noted in the Board's meeting protocol.

Management Board's resolutions are required only in respect of matters exceeding the scope of ordinary Company's activities including in particular:

1. the approval and amendment of the Management Board's Regulations
2. the approval and amendment of the Company's Organizational Regulations
3. the acceptance of applications referred to the Supervisory Board or General Meeting
4. convening of General Meetings and acceptance of proposed agendas
5. the acceptance of annual and long-term financial plans and development strategies for the Company
6. the grant of proxy or general power of attorney
7. taking out credit and loans
8. the grant of loans and donations
9. the disposal of a right or assumption of a liability exceeding the amount of PLN 500 thousand, excluding purchase and sales of raw materials, intermediate goods, and products related to the operations of the Company up to the value of PLN 6 million in a single transaction or series of related transactions
10. the application for bank guarantees, assumption of liabilities under promissory notes, the grant of all types of guarantees and the establishment of other securities.

A Board's resolution is also required in matters not exceeding the scope of ordinary Company's activities if its passing is requested by any of the Management Board's Members.

As at 1 January 2016, the Company's Management Board performed its function in an unchanged composition.

The body responsible for establishing the principles and level of remuneration for the Management Board members is the CIECH S.A. Supervisory Board.

TABLE 52: MANAGEMENT BOARD OF CIECH S.A.



#### MACIEJ TYBURA

President of the Management Board of CIECH S.A. since 22 July 2015, Member of the Management Board of CIECH S.A. since 13 October 2014

Graduated from Poznan University of Economics with a specialization in Corporate Finance and Accounting. In addition, he is a graduate of postgraduate MBA (University of Economics in Wrocław) and Management by Cost (Wrocław School of Economics).

At the beginning of his career, he was associated with the Hoghtief Group and Wrozamet (1997–2002), where he worked on strategic planning, investments and controlling. He served several management functions in companies of KGHM Group, including the position of the Vice President of the Management Board of KGHM Polska Miedź S.A. (2008–2012).

Member of numerous Supervisory Boards: CIECH S.A., PCC Exol, KGHM International, Telefonía Dialog, Pol-Miedz Trans, Walcowania Metali Nieżelaznych, PIGO. He still serves as the Chairman of the Supervisory Board of KGHM TFI and PHP Mercus, and sits on the Supervisory Board of Tauron Polska Energia.

Scope of responsibilities in CIECH S.A. – supervision over organisational units:

- Group Management Office
- Strategy Department
- Human Resources Department
- Audit and Control Department
- Legal Counsel team
- IT Department
- Assets Management Department
- Security Office
- Purchase Division, including:
  - Raw Materials Purchase Department
  - Investment and Technical Purchases Department
  - Administration and IT Purchase Department
- Finance and Accounting Division, including:

- o Accounting Department
- o Finance Management Department
- o Controlling Department
- o Inowrocław Branch
- o Nowa Sarzyna Branch
- Independent position: Risk Officer in the CIECH Group.

**ARTUR KRÓL**

Member of the Management Board of CIECH S.A. since 26 October 2015

He graduated from the Wrocław University of Technology, Faculty of Computer Science and Management, in Management and Marketing. He is also a graduate of post-graduate course at Warsaw School of Economics – “Value Based Management”.

He has been associated with KGHM Polska Miedź S.A. Group from the beginning of his career. He started his work in the Corporate Governance Department, next he was the Head of Implementation Department (later Marketing and Development) in Fundusz Inwestycji Kapitałowych KGHM Metale S.A. In 2006–2008 he worked in Wałbrzyskie Zakłady Koksoownicze “Victoria” S.A. where he served as the Investment and Development Director. In 2008–2012, he was the founder and General Manager of the Central Purchase Department at KGHM Polska Miedź S.A. He also served as the President of the Management Board in Przedsiębiorstwo Budowy Pieców Przemysłowych “PIEC-BUD” Wrocław Sp. z o.o. (2013–2014). Recently, the General Manager of the Branch of Huta Miedzi “Głogów” (2014–2015). Artur Król was the member of the following Supervisory Boards: KGHM Ecoren S.A., KGHM Shanghai Copper Trading Co. Ltd, PHP Mercus Sp. z o.o.

Scope of responsibilities in CIECH S.A. – supervision over organisational units:

- Production Division, including:
  - o Production Department
- Investment and Maintenance Division, including:
  - o Investment Management Department
  - o Facilities Maintenance Department
- Environmental Department
- Energy Department
- Department of Continuous Improvement of the Group Systems

**ARTUR OSUCHOWSKI**

Member of the Management Board of CIECH S.A. since 2 April 2008

Graduate of the Private Higher School of Business and Administration in Warsaw, Faculty of Economics, majored in Finance and Banking.

Completed professional courses in management of company value, appraisal of companies on the capital market, restructuring of company’s activity. Holder of the scholarship of the “Die Zeit” weekly, American Council of Germany, Dreager Foundation.

In 1996–1997, the analyst in the Management Accounting Department at Raiffeisen Bank Polska.

From 1998 to 2001, senior consultant in the Corporate Finance department at Ernst & Young (responsible for mergers and acquisitions on the capital market and strategic projects related to restructuring and reorganization of companies’ operations).

In 2001–2003, he was senior consultant at the Corporate Finance Department at Capgemini. Responsible for mergers and acquisitions on the capital market and strategic projects related to restructuring and reorganization of companies’ operations.

In 2003–2008, he acted as the manager at KPMG Advisory in the Economic Consulting Department. Responsible for the development of services in the scope of strategic projects, reorganization of companies’ operations and projects related to the financing of operations, as well as the support of direct investments.

Scope of responsibilities in CIECH S.A. – supervision over organisational units:

- Project Management and Entities Supervision
- Marketing and Communication Department
- European Funds Department



- Salt Product Sales and Development Office
  - Sales Division, including:
    - Soda Ash Sales Department
    - Baking Soda Sales Department
    - Sales Logistics and Administration Department
    - Sales Analysis Support Department
    - Business Development Position
  - Independent positions, including: Representative of the Management Board for the Integrated Quality and Information Security Management System, Chief Planner of the CIECH Group, Press Officer, Representative of the Management Board for Investor Relations.
- 

## 7.11 REMUNERATION FOR THE MANAGEMENT AND SUPERVISORY BODIES

Information on the remuneration for the management and supervisory bodies is provided in note 9.3.4 to the Consolidated Financial Statements of the CIECH Group for 2016 and note 9.3.4 to the Financial Statements of CIECH S.A. for 2016.

## 7.12 INFORMATION ABOUT AGREEMENTS SIGNED BETWEEN THE ISSUER AND PERSONS IN MANAGEMENT POSITIONS

In the case of dismissal of Board Members from their positions, they are entitled to a one-time cash severance package in the amount of six months remuneration. The non-competition agreement with Board Members after the termination of the employment provides a compensation in the amount of 50% of monthly remuneration for a period that does not exceed 24 months.

Other agreements, apart from those listed above, were not signed between the Company and Members of the Management Board of CIECH S.A.



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## GLOSSARY OF ABBREVIATIONS AND TERMS

ASEAN	Association of South-East Asian Nations
CAGR	Compound Annual Growth Rate
CEE	Central and Eastern Europe
CIT	Corporate income tax
CO <sub>2</sub>	Carbon dioxide
CSR	Corporate Social Responsibility
Dual listing	Listing of a company's shares on two or more stock exchanges
DZK-Komfort	Glass latch lid jars
EBITDA	Earnings before interest, taxes, depreciation and amortization
EBITDA (N)	EBITDA excluding one-off events
EPS	Earnings per share
EURIBOR	Euro Interbank Offered Rate
EV/EBITDA	Ratio of enterprise value (EV) and earnings before interest, taxes, depreciation and amortization (EBITDA)
GMO	Genetically modified organism
WSE	Warsaw Stock Exchange
Greenfield	Investments on areas with no prior industry or service facilities (e.g. farmlands or woodlands).
GUS	Central Statistical Office
Currency hedging	Strategy used to mitigate foreign exchange risk
S&G	Silicates and Glass — one of key operating segments of the CIECH Group
IFRS	International Financial Reporting Standards
P/BV	Price/book value ratio — allows to compare a company's current market price to its book value, that is, the difference between balance sheet assets and total liabilities of a company listed on a stock exchange
P/E	Price-earnings ratio — indicates how attractive a share is relative to other shares. Calculated by dividing the market value per share by earnings per share
GDP	Gross Domestic Product
PUR	Polyurethane foams
Rating	Evaluation of the credit risk of a securities issuer
ROA	Return on assets
ROE	Return on equity
ROS	Return on sales
REACH Regulation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
SO <sub>2</sub>	Sulphur dioxide
PPC	Plant protection chemicals
Ticker	Three-letter abbreviation used on a stock exchange to uniquely identify each company
EU	European Union
WIBOR	Warsaw Interbank Offered Rate
CIS	Commonwealth of Independent States

## RATIO CALCULATION METHODOLOGY

### Principles of ratio calculation (according to the data for continuing operations):

<b>EBITDA (%)</b>	(operating profit + amortization/depreciation for a given period)/ net revenues from sales of products, services, goods and materials in a given period
<b>Normalised EBITDA (%)</b>	EBITDA excluding one-off events, the more important of which were described in item 1.5.2.5 / net revenues from sales of products, services, goods and materials for a given period
<b>gross return on sales</b>	gross profit on sales for a given period / net revenues from sales of products, services, goods and materials for a given period
<b>return on sales</b>	profit for a given period / net revenues from sales of products, services, goods and materials for a given period
<b>EBIT margin</b>	operating profit for a given period / net revenues from sales of products, services, goods and materials for a given period
<b>EBITDA margin</b>	(operating profit + amortization/depreciation for a given period)/ net revenues from sales of products, services, goods and materials in a given period
<b>normalised EBIT margin</b>	operating profit for a given period excluding one-off events, the more important of which were described in section 1.5.2.5 / net revenues from sales of products, services, goods and materials for a given period
<b>normalised EBITDA margin</b>	EBITDA excluding one-off events, the more important of which were described in section 1.5.2.5 / net revenues from sales of products, services, goods and materials for a given period
<b>net return on sales (ROS)</b>	net profit for a given period / net revenues from sales of products, services, goods and materials for a given period
<b>return on assets (ROA)</b>	net profit for a given period/total assets at the end of a given period
<b>return on equity (ROE)</b>	net profit for a given period/total equity at the end of a given period
<b>debt ratio</b>	the ratio of current and non-current liabilities to total assets; measures the share of external funds in financing of a company's activity
<b>long-term debt ratio</b>	the ratio of non-current liabilities to total assets; measures the share of non-current liabilities in financing of company's activity
<b>debt to equity ratio</b>	the ratio of total liabilities to equity
<b>equity to assets ratio</b>	the ratio of equity to total assets; measures the share of equity in financing of a company's activity
<b>net financial liabilities</b>	liabilities from loans, bonds, borrowings (plus overdraft) and other debt instruments (finance lease + negative net valuation of liabilities from derivatives calculated separately for each derivative + reverse factoring liabilities + factoring liabilities) less cash and cash equivalents
<b>gross financial liabilities</b>	liabilities from loans, bonds, borrowings (plus overdraft) and other debt instruments (finance lease + negative net valuation of liabilities from derivatives calculated separately for each derivative + reverse factoring liabilities + factoring liabilities)



## STATEMENT OF THE MANAGEMENT BOARD

These consolidated financial statements of the CIECH Group were approved by the Management Board of the Company at its registered office on 20 March 2017.

Warsaw, 20 March 2017

Signed on the Polish original

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**Maciej Tybura - President of the Management Board of CIECH Spółka Akcyjna**

Signed on the Polish original

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**Artur Król – Member of the Management Board of CIECH Spółka Akcyjna**

Signed on the Polish original

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**Artur Osuchowski – Członek Zarządu CIECH Spółka Akcyjna**