



# MANAGEMENT BOARD REPORT

on activities of the CIECH Group  
and CIECH S.A. in 2017



We are providing a courtesy English translation of our audited financial statements which were originally written in Polish. We take no responsibility for the accuracy of our translation. For an accurate reading of our audited financial statements, please refer to the Polish language version of our financial statements attached hereto.



*Dear Sirs and Madams,*

The year 2017 has brought about a number of market challenges – first of all in the form of high prices of our key raw materials, lower prices of soda ash and strengthening of the Polish zloty and Romanian leu against the main currencies. Despite this, we managed to deliver robust financial performance – we have earned revenues of PLN 3,579.4 million and adjusted EBITDA (A) of PLN 808.1 million. Our margins were lower than last year, but they still remain very attractive. EBITDA (A) margin stood at 22.6% and net margin at 11.0%.

This performance is mainly the effect of consistent implementation of our strategy – developing towards more and more diversified chemical group. In 2017, our efforts in this area were mainly based on product development and international expansion in almost every area of our business. We have also implemented a number of investment projects and worked on the quality and stability of cooperation with our partners.

In the soda ash area, we have significantly enhanced our logistic competence and in the last months of the year we have successfully completed the contracting process for 2018. Negotiations were marked by expectations of increased supply on the market, but – at the same time – we saw some opportunity resulting from export restrictions imposed in China. We managed to contract the entire volume assumed for 2018 and achieve satisfactory prices. This is not only a result of market factors, but also of the efforts of our sales force.

As regards sodium bicarbonate and salt, our main focus was on investments in product development. I refer mainly to the construction of a new pharmaceutical soda production line, including soda for dialysis, and new saltworks. Both projects are located in Germany, but the final decision on salt has not yet been made – we are planning to make it in the coming quarters. Apart from that, we are also expanding our portfolio with completely new products – the production of salt licks for animals and salt granules for dishwashers will be launched soon in Poland. We are therefore consistently moving towards greater product specialisation, which is our idea to significantly increase margins in the long term.

One of the greatest successes in the past year was the performance of the AGRO business, for which the 2017 season (from 4<sup>th</sup> quarter of 2016 to 3<sup>rd</sup> quarter of 2017) was the best in history – despite the shrinking market, we recorded an increase in sales of crop protection products by over 20%. We have also consolidated our position as the market leader in grain herbicides, recording an increase in sales in this area by nearly 35% in 2017. The sales of glyphosate products also performed very well owing to which our market share increased to 43%. This is all the result of consistently implemented development strategy for CIECH Sarzyna S.A., including intensification of research and development activities, new registrations, expansion into foreign markets and strengthening of sales and marketing areas. What is important, we have also successfully started the 2018 season, with pre-season sales in the 4<sup>th</sup> quarter of 2017 even better than in the 4<sup>th</sup> quarter of 2016.

We also have something to boast about in the area of resins and foams. As regards resins, we have worked effectively to reorganise our customer portfolio and to prevent further increases in prices of raw materials. We also put a lot of effort into R&D activities which will result in expanding our portfolio with new, specialised products carefully tailored to customer needs. In turn, as regards foams, we extended our product portfolio to include, among others, reprocessed foams and dishwashing foams already in 2017. At the end of the year, we also completed the construction of a new warehouse for long blocks which significantly improved the efficiency of our production and, at the same time, increased our production capacity – which made the 4<sup>th</sup> quarter of 2017 the best quarter ever in terms of volumes.

In the Silicates and Glass segment, we had to face once again the noticeable price pressure on the lantern market, which affected, among other things, the decision to change the purpose of using one of our furnaces. In the near future, it will be used in the production of silicates, for which the demand is still growing.

At the same time, in 2017 we had to face high prices of raw materials, both in the soda and organic segments. I refer particularly to power coal and gas needed to produce heat, polyols – used in the production of resins and TDI – used in the production of foams. There is no denying that the market for energy raw materials is still demanding, but we are well positioned for this situation.

For us, 2017 was also marked by a number of efforts aimed at further reducing our impact on the environment, as well as by strengthening the image of CIECH S.A. as a solid and recommendable employer. We have also continued initiatives aimed at popularising modern art, e.g. by organising free exhibitions of works by the world-famous artist Magdalena Abakanowicz, created using our resins, and a competition for young artists inspired by the work of this sculptor. We also supported a number of local social initiatives, often with the participation of our employees.

We are optimistic about 2018, but we do not lose sight of the challenges. We continue our development strategy which is currently based on two pillars – further strengthening our position in the soda ash business and developing specialist products, especially in the areas of sodium bicarbonate, salt and crop protection products. To this end, we will continue our ongoing investment projects – including in the R&D area, further develop our product portfolio, strengthen our sales force,



maintain the high quality of our products and further improve our customer relations. We also remain open to new possibilities, and will consider any new, potentially interesting projects.

I would like to take this opportunity, on behalf of the entire Management Board of CIECH SA, to thank all our employees who work hard every day contributing to the shared success of the CIECH Group. I would also like to thank the Shareholders for their trust and the Supervisory Board for its day-to-day support. At the same time, I would like to declare that as the Management Board, we will continue to do our utmost to build the long-term value of CIECH SA together with our strategic shareholder.

Yours sincerely,

Maciej Tybura

CIECH S.A. Board President

*Dear Sirs and Madams,*

It has been another year of consistent implementation of the CIECH Group's development strategy. Owing to the determination of the entire Management Board of the Company, with the full support of the Supervisory Board and the strategic investor, we managed – despite challenging market conditions – to deliver robust financial performance. This is our great success, for which I would like to express my thanks to everyone.

The objective of the strategy is not only to build the CIECH Group's value in a sustainable manner, but also to redesign the company into a model example of management. We live in a time when the ability to use innovative solutions, operational excellence, high ethical standards, as well as the support of local communities, determine the success of a company just as much as its performance and financial indicators.

Companies such as CIECH – ambassadors of the Polish economy in the world – are expected to deliver more. That is why we implement the best management, business and ethical solutions. In 2017, the CIECH Group began to thoroughly redesign its organisational structure and, in the long run, its culture. Creating these conditions is essential for focusing on innovation, research and development. The potential unleashed in this manner will allow for building the company's value in the long term.

2017 was another year in which expenditures on research and development increased rapidly. This is particularly important for the development of a diversified chemical concern with an international presence. We rely on knowledge, strong relationships between science and business, establishing good conditions for the development of research activities and translating their outcomes into a business success.

At the same time, the company continues to implement the strategy of global expansion by penetrating new foreign markets and strengthening its presence on the international arena. 2017 was a crucial year in this respect, as the Management Board of the Company made a number of decisions which may affect the future of the entire Group.

Launching the next stage of expansion of the plant in Germany is of particular importance, as this will enable CIECH to become a player in the extremely attractive and important market for pharmaceutical-grade sodium bicarbonate. The salt business also decided to expand its product portfolio in Polish plants and launched the preparatory phase of an investment in completely new saltworks located in Stassfurt.

I would like to emphasize that the entire Supervisory Board 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. We also focus on knowledge and development, searching for new products and solutions that will help to respond to the challenges of the changing world.

On behalf of the Supervisory Board of CIECH S.A., I would like to sincerely thank all the Employees and the Management Board of CIECH S.A. for the enormous effort put into the implementation of our goals and plans.

Yours sincerely,



Sebastian Kulczyk

Chairman of the Supervisory Board of CIECH S.A.

# THE CIECH GROUP IN 2017

DESPITE DEMANDING MARKET ENVIRONMENT, THE CIECH GROUP GENERATED SOLID FINANCIAL RESULTS IN 2017, MAINTAINING MARGINS AT A HIGH LEVEL

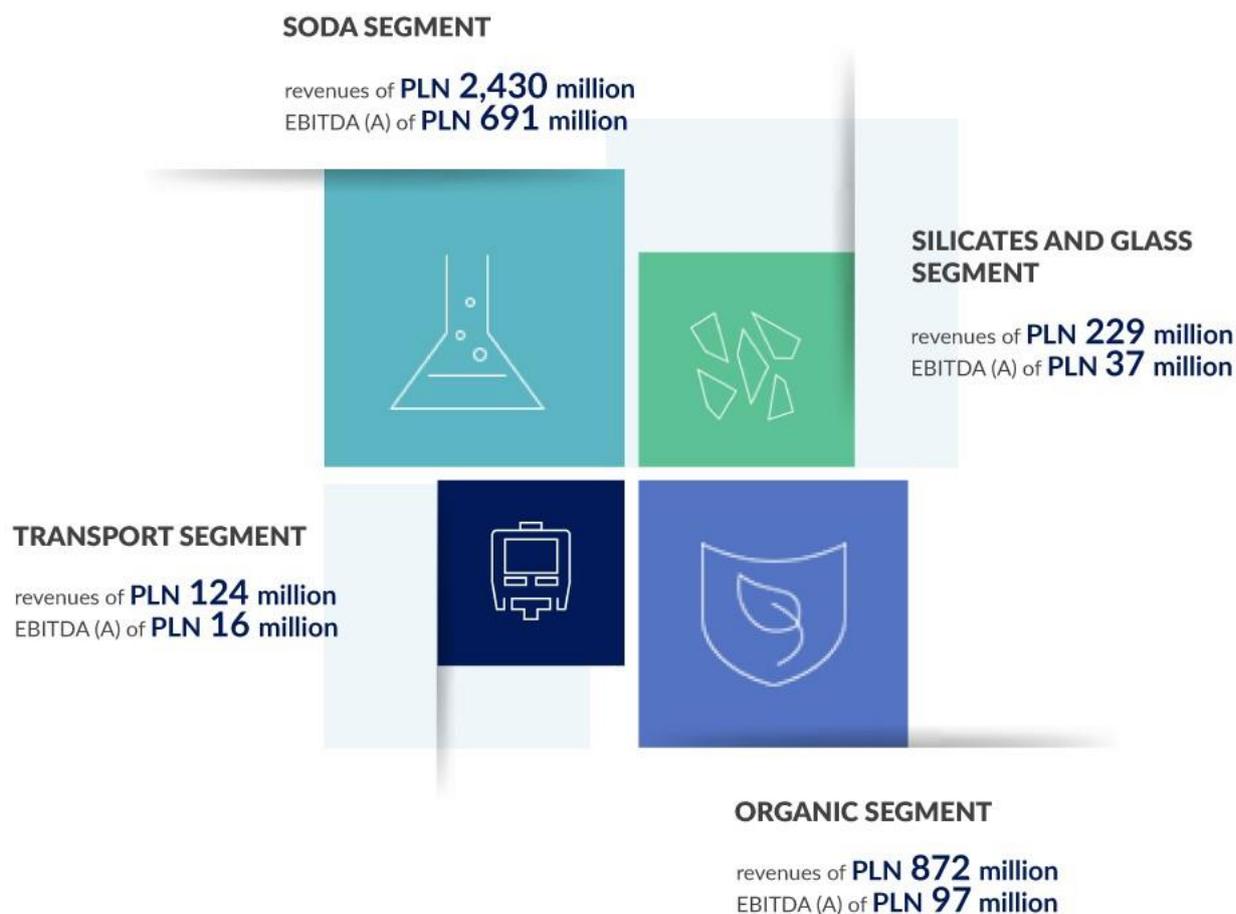
 PLN **3,579**  
REVENUES

 PLN **808**  
million  
EBITDA (A)

 **22.6%**  
EBITDA (A)  
margin

**Systematic decrease**  
in debt  
net debt / EBITDA (A)  
at the level of 1.2

EBITDA(A) – Adjusted EBITDA



IN 2017, THE GROUP FOCUSED ON PRODUCT DEVELOPMENT IN ALL BUSINESS SEGMENTS AND ON FURTHER INCREASE IN PRODUCTION EFFICIENCY.

- Continuation of the investment in sodium bicarbonate and the decision to start the preparatory phase of the investment in a new salt factory in Germany
- Decision to introduce new salt products to the portfolio – dishwasher salt and salt licks
- Registration of another crop protection products in Poland and abroad
- Increasing the share of crop protection products in the Polish market
- Completion of the construction of modern warehouses for salt and foam products that increase production capacity and improve customer service

# TABLE OF CONTENTS

1.	CIECH GROUP'S OPERATING ACTIVITIES	9
1.1	MAJOR EVENTS AND ACHIEVEMENTS IN 2017	9
1.2	CHARACTERISTICS OF THE CIECH GROUP	10
1.3	OPERATING SEGMENTS	12
1.4	SIGNIFICANT AGREEMENTS AND TRANSACTIONS	22
2.	EXTERNAL ENVIRONMENT	24
2.1	FACTORS WITH MAY IMPACT ON THE CIECH GROUP'S ACTIVITIES	24
2.2	CHARACTERISTICS OF THE MARKET AND POSITION OF THE CIECH GROUP	26
2.2.1	SODA SEGMENT	26
2.2.2	ORGANIC SEGMENT	33
2.2.3	SILICATES AND GLASS SEGMENT	40
3.	CIECH GROUP'S STRATEGY AND DEVELOPMENT CONDITIONS	44
3.1	STRATEGY OF THE CIECH GROUP for 2014-2019	44
3.2	STRATEGIC ACTIVITIES IN 2017	45
3.3	DEVELOPMENT PROSPECTS	46
3.4	RISKS TO OPERATIONS	49
3.5	CORPORATE SOCIAL RESPONSIBILITY (CSR)	59
3.5.1	CSR IN THE CIECH GROUP	59
3.5.2	KEY ISSUES RELATED TO ENVIRONMENTAL PROTECTION	59
3.5.3	SPONSORSHIP AND CHARITY POLICY	61
3.6	RESEARCH AND DEVELOPMENT	62
4.	FINANCIAL POSITION OF THE CIECH GROUP AND CIECH S.A.	64
4.1	PRINCIPLES FOR DRAWING UP THE ANNUAL FINANCIAL STATEMENTS OF THE CIECH GROUP AND CIECH S.A.	64
4.2	REVIEW OF KEY ECONOMIC AND FINANCIAL FIGURES CONCERNING THE CIECH GROUP	64
4.2.1	STATEMENT OF PROFIT OR LOSS OF THE CIECH GROUP	65
4.2.2	FINANCIAL PERFORMANCE BY OPERATING SEGMENT OF THE CIECH GROUP	67
4.2.3	ASSET POSITION OF THE CIECH GROUP	72
4.2.4	CASH POSITION OF THE CIECH GROUP	73
4.2.5	WORKING CAPITAL AND SELECTED FINANCIAL RATIOS OF THE CIECH GROUP	73
4.2.6	GROUP'S PERFORMANCE IN THE 4 <sup>TH</sup> QUARTER OF 2017	76
4.3	REVIEW OF KEY ECONOMIC AND FINANCIAL FIGURES CONCERNING CIECH S.A.	77
4.3.1	STATEMENT OF PROFIT OR LOSS OF CIECH S.A.	77
4.3.2	ASSET POSITION OF CIECH S.A.	81
4.3.3	CASH POSITION OF CIECH S.A.	81
4.3.4	WORKING CAPITAL AND SELECTED FINANCIAL RATIOS OF CIECH S.A.	82
4.3.5	CIECH S.A.'S PERFORMANCE IN THE 4 <sup>TH</sup> QUARTER OF 2017	84
4.4	INVESTING ACTIVITIES OF THE CIECH GROUP	84
4.5	STATE AID USED	86
4.6	FINANCIAL RESOURCE MANAGEMENT	87
4.6.1	EXTERNAL DEBT FINANCING OF THE GROUP	87
4.6.2	INTRAGROUP LOANS GRANTED	89
4.7	MATERIAL LITIGATION PENDING BEFORE A COURT, AN APPROPRIATE ARBITRATION AUTHORITY OR A PUBLIC ADMINISTRATION AUTHORITY	90
4.8	INFORMATION ON CHANGES IN CONTINGENT ASSETS AND LIABILITIES OF THE CIECH GROUP	90
4.9	TRANSACTIONS WITH RELATED PARTIES OTHER THAN ON AN ARM'S LENGTH BASIS	92
4.10	CONTRACT WITH THE ENTITY AUTHORISED TO AUDIT FINANCIAL STATEMENTS	93
5.	ORGANISATION, MANAGEMENT, STRUCTURE AND HUMAN RESOURCES IN THE CIECH GROUP	95
5.1	EQUITY AND ORGANISATIONAL LINKS	95
5.2	SCOPE OF ACTIVITIES OF CIECH S.A. AND CONSOLIDATED ENTITIES WITHIN THE GROUP	95
5.3	SCOPE OF ORGANISATION AND MANAGEMENT IN THE CIECH GROUP AND CHANGES IN 2017	97
5.4	OWNERSHIP CHANGES	97
5.5	EMPLOYMENT STRUCTURE AND HUMAN RESOURCES	98
6.	SHARES AND SHAREHOLDERS	103
6.1	SHAREHOLDER STRUCTURE OF CIECH S.A.	103
6.2	CIECH S.A. ON THE STOCK EXCHANGE	104
6.2.1	CIECH ON THE WARSAW STOCK EXCHANGE	104
6.2.2	CIECH S.A. ON THE FRANKFURT STOCK EXCHANGE	108

6.2.3	INVESTOR RELATIONS	108
6.3	RATINGS	110
6.4	OTHER INFORMATION CONCERNING SHARES AND SHAREHOLDERS	110
7.	CORPORATE GOVERNANCE	112
7.1	SET OF CORPORATE GOVERNANCE PRINCIPLES APPLIED BY CIECH S.A.	112
7.2	CORPORATE GOVERNANCE PRINCIPLES WHICH WERE NOT APPLIED BY THE ISSUER IN 2017	112
7.3	INTERNAL CONTROL SYSTEM WITH REGARD TO THE PROCESS OF PREPARING FINANCIAL STATEMENTS	115
7.4	SHAREHOLDERS OF CIECH S.A. HOLDING SIGNIFICANT BLOCKS OF SHARES	117
7.5	SHAREHOLDERS WITH SPECIAL CONTROL RIGHTS	117
7.6	RESTRICTIONS CONCERNING THE EXERCISE OF THE VOTING RIGHTS	117
7.7	RESTRICTIONS CONCERNING THE TRANSFER OF OWNERSHIP RIGHTS TO THE ISSUER'S SECURITIES	118
7.8	DESCRIPTION OF RIGHTS FOR MAKING DECISIONS ON THE ISSUE OR REDEMPTION OF SHARES	118
7.9	PRINCIPLES OF AMENDING THE ISSUER'S ARTICLES OF ASSOCIATION	118
7.10	CORPORATE BODIES OF CIECH S.A. AND PRINCIPLES GOVERNING THEIR OPERATION	118
7.11	REMUNERATION FOR THE MANAGEMENT AND SUPERVISORY BODIES	128
7.12	INFORMATION ABOUT AGREEMENTS SIGNED BETWEEN THE ISSUER AND PERSONS IN MANAGEMENT POSITIONS	128
	LIST OF TABLES	129
	LIST OF FIGURES	130
	GLOSSARY OF ABBREVIATIONS AND TERMS	131
	RATIO CALCULATION METHODOLOGY	132
	REPRESENTATION OF THE MANAGEMENT BOARD	133



# OPERATING ACTIVITIES

of the CIECH Group





## 1

## CIECH GROUP'S OPERATING ACTIVITIES

## 1.1 MAJOR EVENTS AND ACHIEVEMENTS IN 2017

New branding of soda products	1 <sup>st</sup> quarter	RELIABLE EMPLOYER Title
<p>The CIECH Group has introduced new brands for its soda products. They are to reflect rising standards in customer service, logistics and production processes, introduced in previous quarters. The new branding is also to differentiate the specialist product portfolio of the Group in the soda segment, including the pharmaceutical, feed or food grade soda.</p>		<p>SOLID EMPLOYER is a title awarded to the CIECH Group in February 2017, in the National "Solid Employer" Contest. The chamber of the contest decides which companies deserve the award for their effective and innovative HR policy, taking into account such criteria as: working conditions (observance of OHS regulations, labour law, etc.), timely payment of salaries, social conditions, career path (trainings for employees).</p>
Golden Website of the Issuer Contest Final	1 <sup>st</sup> quarter – 2 <sup>nd</sup> quarter	Appointment of the Management Board Members for the new term of office
<p>CIECH S.A. qualified for the final stage of the Golden Website X contest organised by the Association of Listed Companies, in which 889 websites of companies listed on the Warsaw Stock Exchange, including on the New-Connect market, were assessed.</p>		<p>On 24 May 2017, in connection with the expiry of the current term of office of Members of the Management Board as at the date of opening of the Annual Shareholders' Meeting of CIECH S.A., convened for the purpose of approval of the financial statements for the financial year 2016, the Supervisory Board of CIECH S.A. resolved to reappoint all current members of the Management Board for a new 3-year term of office. The Supervisory Board has entrusted members of the Management Board with their existing functions, i.e. Mr Maciej Tybura – the office of the President of the Management Board, and Mr Artur Król and Mr Artur Osuchowski – the office of Members of the Management Board.</p>
Introduction of new product groups in the AGRO business — specialised fertilisers, autumn products and BIO products	3 <sup>rd</sup> quarter	
<p>Specialised fertilisers are designed to combat macro- and micro-nutrient deficiencies and can be used in a wide range of development phases of cultivated plants. They are available in different types under the SARPLON® brand name.</p> <p>Autumn fertilisers include fertilisers for conifers, lawns, liquid fertiliser and universal fertiliser. Autumn ZIEMOVIT fertilisers increase the resistance of plants to frost and diseases, while ensuring better appearance of plants until late autumn.</p>		
Redemption of bonds	4 <sup>th</sup> quarter	Decision to initiate the preparatory stage of an investment in a new salt production plant in Germany
<p>On 5 December 2017, CIECH S.A. redeemed all 16,000 series 02 bonds with a nominal value of PLN 10,000 each. The bonds were issued by CIECH S.A. on 5 December 2012 and redeemed on the maturity date, as provided for in the Terms and Conditions of Bonds Issue. The redemption value (average unit price plus interest) of each Bond was PLN 10,336.42.</p>		<p>CIECH S.A. has decided to initiate the preparatory stage for the construction of a completely new evaporated salt production plant in Stassfurt, Germany. The planned location of the new factory is close to the existing soda plant of the Group. The final decision on the implementation of the investment project will be made within the next few quarters and will depend on, among other factors, market conditions, ability to obtain relevant administrative decisions and public aid from the German authorities. The value of the potential investment project is approximately EUR 100 million.</p>
Completion of the construction of a modern high-storage warehouse for salt products		Completion of the construction of a warehouse for long polyurethane foam blocks
<p>The construction of a new high-storage warehouse at CIECH Soda Polska S.A.'s plant in Janikowo was completed. The warehouse will be used to store finished dry salt products (table salt, industrial salt, feed salt and salt tablets).</p>		<p>In October 2017, CIECH Pianki Sp. z o. o. completed the extension of the warehouse for long blocks and the dispatch building. The investment project has significantly improved the efficiency of production and logistics processes.</p>



## 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

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

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 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 are also exported to overseas markets and sold mainly to customers in India, North Africa and the Middle East.



FIGURE1: 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
<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

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

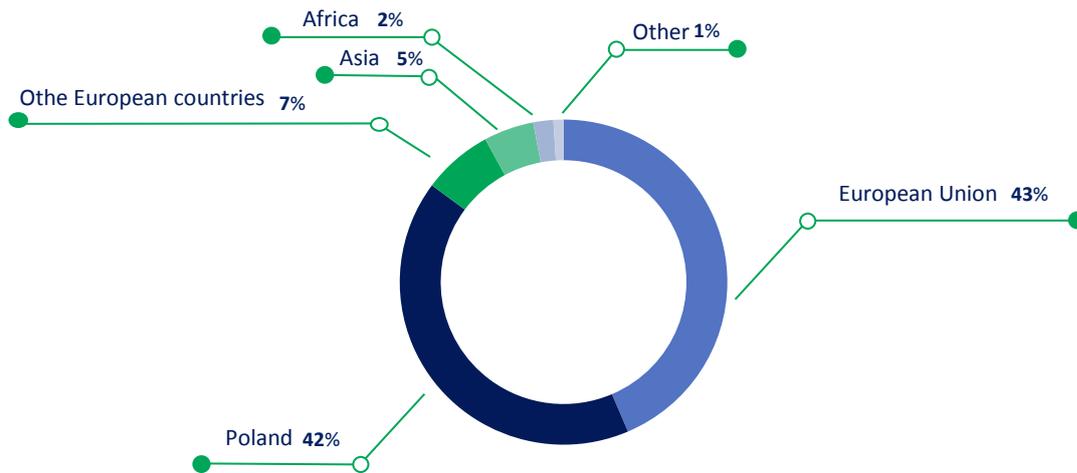


The CIECH Group is the exclusive Polish exporter of:

- Soda ash
- Sodium bicarbonate
- Calcium chloride
- Epoxy resins.

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

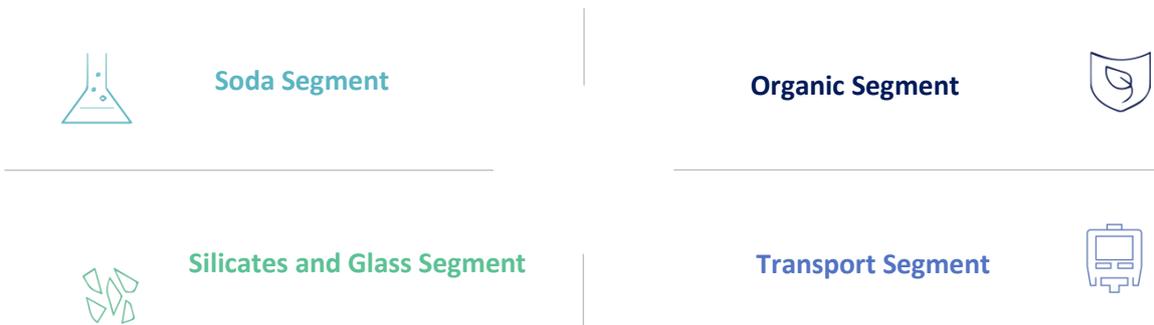
FIGURE 3: GEOGRAPHICAL STRUCTURE OF THE CIECH GROUP'S REVENUES IN 2017



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.



<p><b>SODA SEGMENT</b></p> <p>Soda ash   Sodium bicarbonate   Salt</p>	<p><b>68%</b>   of the CIECH Group's revenues in 2017</p>
--	---

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 2017, it accounted for 85% of adjusted EBITDA (adjusted by one-off events). The CIECH Group is focused on expanding its business potential and creating competitive advantages which result from, among other aspects, the Group's strong position on key markets and relations with customers, increase in production capacity, wide range of soda products, extension of the sodium bicarbonate portfolio and optimal distribution of production plants.

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:



Dense soda – used primarily in the production of glass.



Light soda – used primarily in the production of granular detergents.

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.

Soda ash is used primarily in production of:

- flat glass,
- glass packaging and glassware,
- detergents,
- technical application, other chemical applications, treatment plants, mineral extraction.

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

## Sodium bicarbonate

Sodium bicarbonate is used mainly in production of animal feed (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-grade soda – its acid neutralisation action, potential binding with other chemicals and cleaning properties help pharmaceutical grade soda find widespread use in the pharmaceutical sector.



Pharmaceutical-grade dialysis soda – a specially purified soda grade with specific granulometric parameters and complying with requirements set out in special regulations.



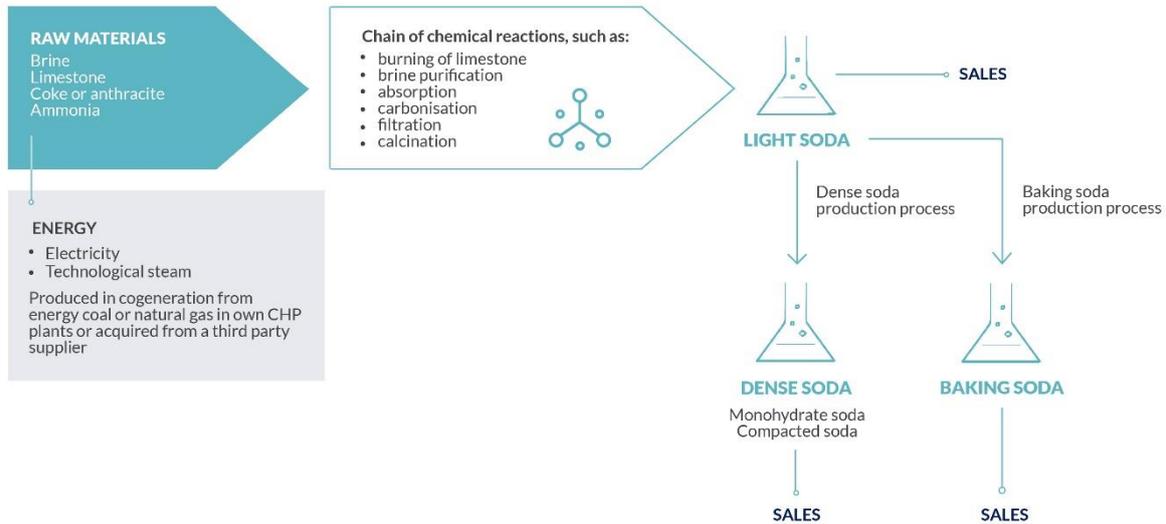
Industrial-grade soda – a product widely used in many branches of industry, including: in the production of detergents, in paper industry, flue gas desulphurization industry and chemical industry.

### 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 sodium bicarbonate – in Inowrocław and Stassfurt.

Presented below is a simplified schematic diagram of the soda ash and sodium bicarbonate 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 soda production process, coke can be replaced with anthracite which is slightly less efficient, but also cheaper than coke. The Group's soda plants can use a mixture of both fuel types, i.e. coke and 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 in the form of technological steam – production plants in Poland and Germany have their own CHP plants, and the Romanian company buys it 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 optimisation 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

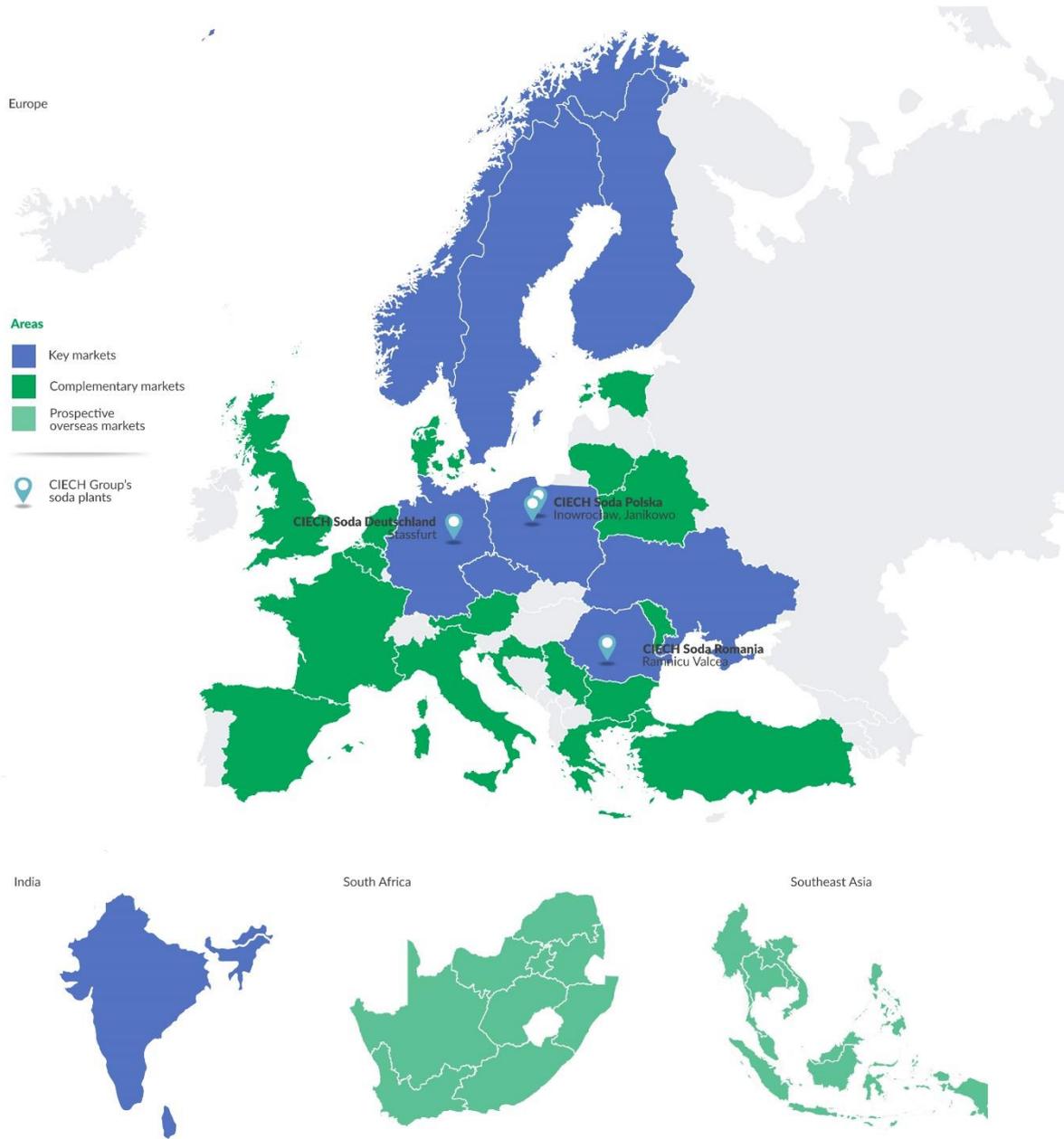


FIGURE 6: PRODUCTION CAPACITY OF THE CIECH GROUP'S SODA PLANTS  
SODA ASH



#### SODIUM BICARBONATE\*



\* Sodium bicarbonate 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

##### 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.

##### 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.

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

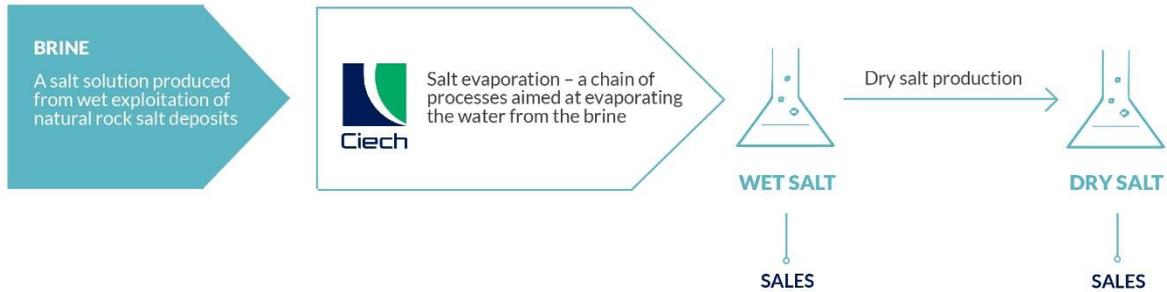


FIGURE 8: SALT PRODUCTION IN THE CIECH GROUP AND KEY MARKETS

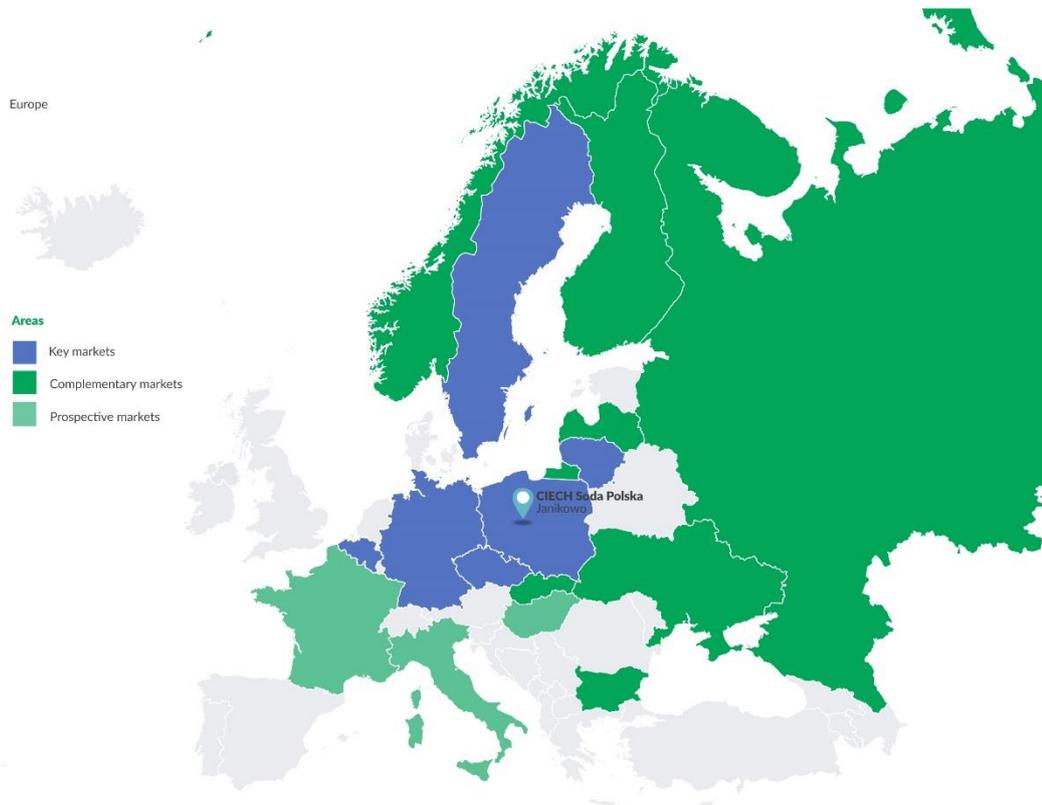
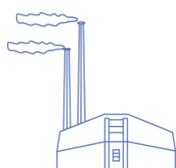




FIGURE 9: PRODUCTION CAPACITY OF THE CIECH GROUP'S PLANTS – SALT



**600 tt**

CIECH Soda Polska

- Janikowo

**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 SO<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.

	<b>ORGANIC SEGMENT</b>	<b>24%</b>	of the CIECH Group's revenues in 2017
Crop protection products   Resins   Polyurethane foams			

The organic segment is the second largest pillar of the business activity of the CIECH Group. In 2017, it generated 12% of adjusted EBITDA (adjusted for one-off events) Products falling within this segment are manufactured by the following two companies: CIECH Sarzyna S.A. (crop protection products and resins) and CIECH Pianki Sp. z o.o. (polyurethane foams).

The CIECH Group is the largest domestic producer of crop protection chemicals 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.

**Crop protection products**

The company that specialises in the production of crop 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, laminates and epoxy flooring systems.

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

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

### 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, construction industry and textile industry.



CIECH Pianki Sp. z o.o. has many years of experience in the production and sale of flexible PUR foams. It is one of the largest elastic foam producers in Poland. Recipients of the company's products include the largest furniture and mattress manufacturers in Poland and Europe. 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 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

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.

CIECH Sarzyna S.A. also introduced a new category of professional foliar fertilisers, SARPLON, which will be available in stores in spring 2018.

In the resins area, 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 sectors.

In the PUR foams area, CIECH Pianki Sp. z o.o. has been systematically expanding its product portfolio. The products offered are more and more often going beyond the furniture and upholstery industry. The company supplies foams for the production of cleaning products, gaskets, sports mats and other specialty products. In 2017, the warehouse for long blocks and a dispatch building were extended and this investment project will contribute positively to the company's production and logistics performance.



## SILICATES AND GLASS (S&G) SEGMENT

Glass products | Silicates | Water glass

6% of the CIECH Group's revenues in 2017

In 2017, it generated 5% of adjusted EBITDA (adjusted for one-off events). The operation of this segment is based on CIECH Vitrosilicon S.A., a company which has two production plants: in Łłowa and Źary, and on CIECH Soda Romania S.A. – a plant in Ramnicu Valcea. The Łłowa plant manufactures glass packaging products and water glass (sodium and potassium water glass), and the Źary 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.

### Glass products

CIECH Vitrosilicon S.A. specialises in the manufacturing of lanterns for vigil lights and is recognised as the leader of the Polish market. The full range covers approx. 100 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 and with a very diverse design.



The company is also the only Polish producer of COMFORT-type jars with glass cover and fastening clamps. On a small scale, the Company also produces standard Twist-off jars for the food processing industry.

### Silicates

The CIECH Group manufactures sodium and potassium silicates. Both types of silicates are produced in two forms – solid, offered under the brand name of VITROSIL (glassy sodium and potassium silicate) and liquid, offered under the brand name of VITROLIQ (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.

After the extension of sodium silicate production capacity and replacement of a worn out glass furnace with a modern end-fired glass furnace with capacity, CIECH Vitrosilicon S.A. now owns one of the most state-of-the-art glassy sodium silicate production furnaces in Europe. The company is in the process of further increasing the production capacity of glassy sodium silicate – the furnace in the Łłowa plant is being converted. This investment will increase the existing capacity by more than 20%.

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 2017

The operation of the transport segment is concentrated in CIECH Cargo Sp. z o.o., a company rendering rail transport services in Poland, within the scope of: rail cargo transport, rental of rail carriages 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 – as part of its continuous development – the Company has been increasing the share of transport services provided to companies from outside the Group.



### 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 segments also includes companies that support the Group's operations in terms of, among others, sale and management of real property (CIECH Nieruchomości S.A.), 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 the majority of soda segment products manufactured by the CIECH Group companies. Key products of this segment include: light and dense soda ash, sodium bicarbonate, 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., CIECH Sarzyna S.A. and – as of 2017 – also for CIECH Vitrosilicon S.A. and CIECH Trading 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 crop protection chemicals. Most crop protection chemicals are used in the first half of the year, during the period of intensive plant growth. However, sales of these products take place mainly in the 4<sup>th</sup> quarter of the preceding year. 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**

### **Agreement on the sale of thermal coal**

Following the fulfilment of the condition subsequent for the termination of an agreement on the sale of thermal coal between Polska Grupa Górnicza S.A. and CIECH Soda Polska S.A., the agreement was terminated on 31 December 2017. At the same time, Polska Grupa Górnicza S.A. submitted its offer that included significant terms and conditions of a new agreement, and CIECH Soda Polska S.A. confirmed its acceptance of the offer. The offer defines the price of the product, provides for indefinite time of agreement duration, ability to terminate the agreement with a 2-year period of notice, effective as of the end of the calendar year, and supplies of the product from 2018 onwards, in the volume of 250-300 thousand tonnes each calendar year.

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

CIECH Group's companies, to the best of their knowledge and belief, did not conclude transactions on the terms other than market ones. Sales to and purchases from related entities are realised at market prices that reflect market conditions.

For a description of transactions concluded between related parties, see note 9.3. to the Consolidated Financial Statements of the CIECH Group for 2017 and note 9.3 of the Financial Statements of CIECH S.A. for 2017.



## 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 2017 increased by 6.5% as compared with the corresponding period of the previous year (in 2016 — an increase by 3.2%). In 2017, 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 4.6%); rubber and plastic products (increase by 9.5%); manufacture of motor vehicles (increase by 7.7%); manufacture of furniture (increase by 7.5%); manufacture of food (increase by 6.6%); construction and assembly production (increase by 12.1%).

In the past year, clear improvement of economic situation in the Polish economy was noted (estimated GDP growth of 4.6% in 2017, compared to 2.9% in 2016). Poland's GDP growth rates were and should still be significantly higher than the average rates for the European Union.

The economic situation in Poland is expected to continue or weaken slightly in 2018 (the European Commission projects that GDP growth will amount to 4.2%). Similar trends should be expected in the chemical industry which usually develops similarly to the economy as a whole.

#### **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 on sales depends on the global economic situation in Europe and in the world. Global economic downturn usually results in the fall of the demand for raw materials on global markets and hence on the amount of export turnover of the Group.

According to the forecasts of International Monetary Fund, in 2018 the dynamics of global economic development should speed up slightly (increase in GDP by 3.9% vs. 3.7% projected for 2017). The largest Asian economies will grow relatively quickly (India, China, and ASEAN countries, for which the GDP growth indicators should be, respectively: 7.4%, 6.6%, 5.3%). Among large economies, the relatively weaker conditions are observed in Brazil, Russia and Japan (expected GDP growth rates in 2018 of 1.9%, 1.7% and 1.2% respectively). According to the IMF, a clear acceleration can be expected this year in India and Brazil, the Middle East and Africa.

The European Union, on the other hand, is expected to maintain last year's good economic situation (GDP growth by 2.3% in 2018 vs. 2.4% in 2017, according to the European Commission's forecasts).

For the chemical sector, the American Chemical Chamber (ACC) expects that this year the growth rate of global chemicals production will increase for another year in a row (and will amount to 3.2% in 2018 compared to 2.5% in 2017). According

to ACC, chemical production in North America is expected to grow by 3.4% this year and in Western Europe by 2%. After an exceptionally good 2017, the European Union's chemical industry in 2018 is expected to show a certain slowdown in the rate of growth (chemical production dynamics of 3% and 2% according to the European Chemical Industry Council - CEFIC).

As regards the European construction sector, the production rate is expected to decline slowly over the next 2-3 years (compared to the steadily growing dynamics over the past few years). According to Euroconstruct, construction output in Western Europe and Central Europe increased by 3.5% last year, but in 2018 and 2019 it can grow by 2.6% and 2.1% respectively. Much more optimistic forecasts are made for Central Europe, and particularly for Poland. Euroconstruct expects that in 2018-2019 the rate of growth of construction output in Poland will slightly accelerate or remain at the current level (ranging from 9% to 10%).

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>Hard 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>Furnace fuel – coke/antracite. 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. In its business activity, the Group may also use anthracite as a substitute for coke. The main suppliers of anthracite for Europe are Ukraine and Russia. Due to rising prices of coke, in 2017 the Group used anthracite to a large extent.</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 2017 was: EUR -253.3 million and USD 16.1 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 large soda ash and sodium bicarbonate 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 neighbouring regions which may have a negative impact on the Group's financial performance. On the other hand, it should be noted that the commissioning of new capacity in Turkey has been spread over 2017-2018 and coincides with strong demand and environmental constraints in the world's largest market, China. This situation provides a framework for greater globalisation of the soda ash market and an opportunity that the possible oversupply in Europe (as a result of Turkish investment projects) may be quite moderate in the coming years.</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 tonne 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>



Factors	Description
	<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

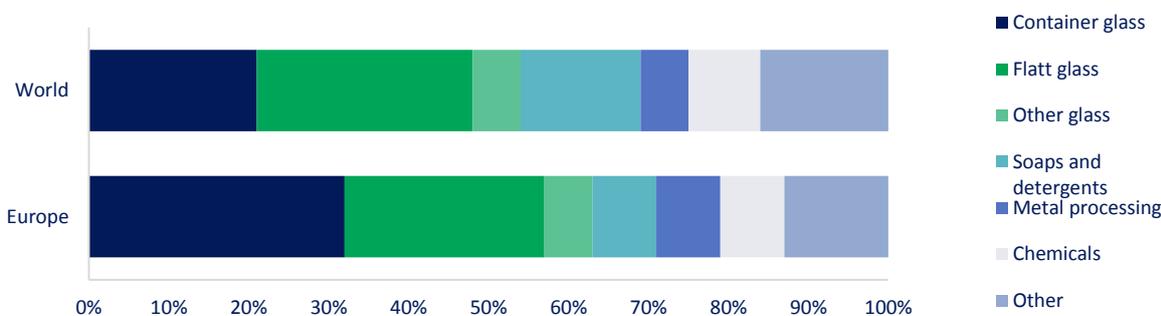


The CIECH Group is the **second European** and the largest in Central and Eastern Europe **producer of soda ash**. It is the eighth largest producer on the global market.

#### 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.

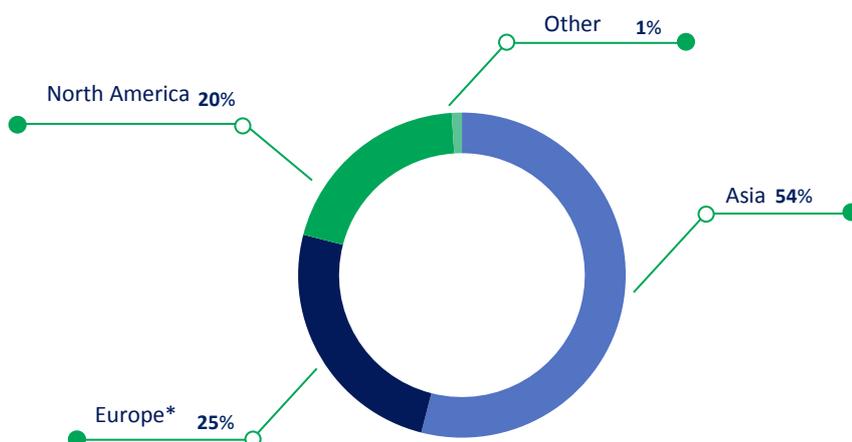
FIGURE 11: SODA ASH CONSUMPTION STRUCTURE



Source: Own compilation based on data from IHS Markit

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



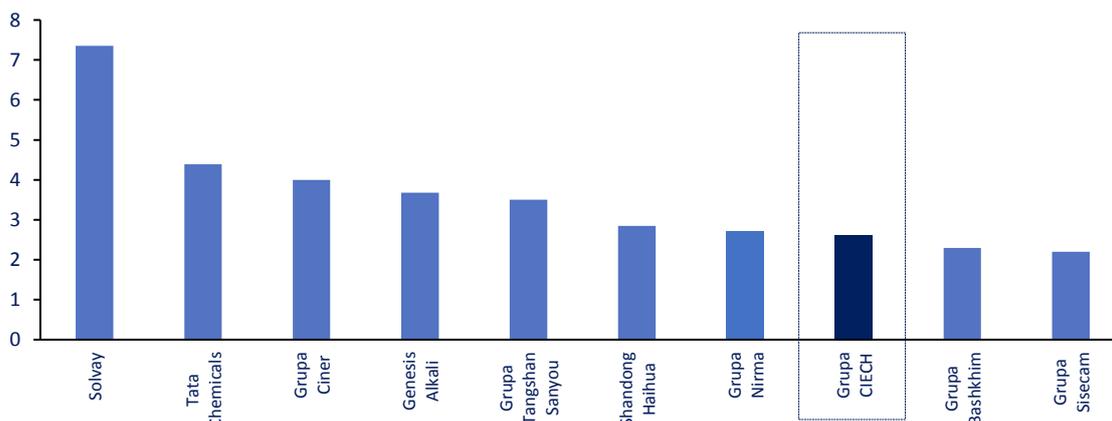
\*Europe including all of Russia and Turkey

Source: Own compilation based on data from IHS Markit

As at the end of the past year, the global production capacities of soda ash are stood at 67-68 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 4 million tonnes/year or more, are the following four concerns: Solvay, Tata Chemicals, Grupa Ciner and Genesis Alkali. As at the end of 2017, these companies represented about 30% of global production capacity.

FIGURE 13: LARGEST GLOBAL PRODUCERS OF SODA ASH BY PRODUCTION CAPACITIES IN 2017

million tonnes/year



Source: Own compilation based on IHS Markit and others

Last year, the production capacity of soda ash was increased mainly in China, Turkey and Indian subcontinent. The increase in demand on the largest soda ash market – China – requires continued investments in new production capacity given that some of the old and inefficient facilities have been closed for environmental reasons. By the end of this decade, significant increase in production capacity will also have taken place in the above-mentioned regions: in the Middle East (less than 3 million tonnes/year; mainly in Turkey – delayed implementation of a large project based on natural deposits) as well as in the Indian subcontinent and China (approximately 1.5 million tonnes/year each).

The main soda ash market for CIECH Group is Europe, especially Poland. The biggest producer in this region is Solvay company, which owned factories in 6 locations around Europe in 2017, 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 sales in Poland exceeds 95%, around 17% in Europe and about 4% globally (own estimates based on market data compiled by IHS Markit).

Demand for soda ash in Europe (including CIS) is estimated at more than 11 million tonnes per year. European (including Polish) soda ash market is a mature market with no rapid changes, with yearly growth rates ranging from 1-2 per cent. Growth dynamics in Central and Eastern Europe is usually higher by 1 percentage point 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.

We believe that the European soda market is now fairly well balanced. The commissioning of new significant production capacity in Turkey (spread over 2017-2018) coincides with strong demand and environmental constraints in the world's largest market, China. This situation provides a framework for greater globalisation of the soda ash market and an opportunity that the possible oversupply in Europe (as a result of Turkish investment projects) may be quite moderate in the coming years. Further investments in new capacity in different regions of the world should be balanced by a stable increase in demand for soda (capacity and demand are projected to growth at similar rates).

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.

**Sodium bicarbonate**

 The CIECH Group is one of the three largest sodium bicarbonate producers in Europe.

Sodium bicarbonate is used mainly in production of animal feed (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 sodium bicarbonate market is divided into the segments of low, high and very high quality sodium bicarbonate. The high quality segment covers food and pharmaceutical industries. Very high quality is required for medical purposes – e.g. in hemodialysis.

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

FIGURE 14: SODIUM BICARBONATE CONSUMPTION STRUCTURE

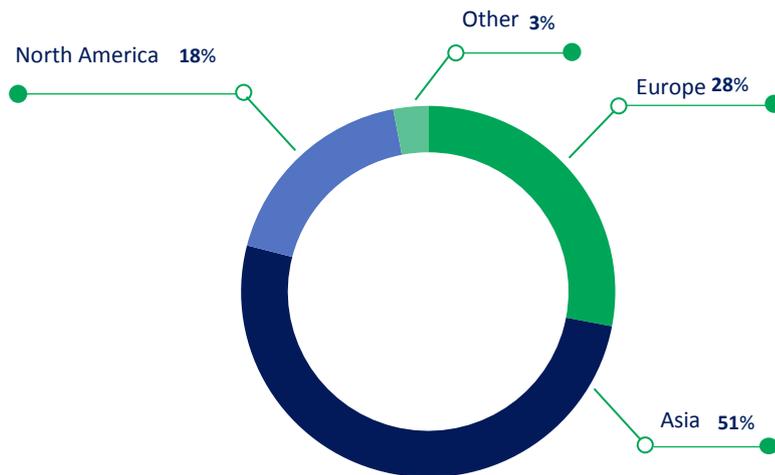


Source: Own compilation based on data from IHS Markit.

Global production capacities for sodium bicarbonate are estimated at about 6 million tonnes per year. Asia accounts for around 50% of these capacities. The share of Europe together with Russia and Turkey reaches 28% and North America – 18%.

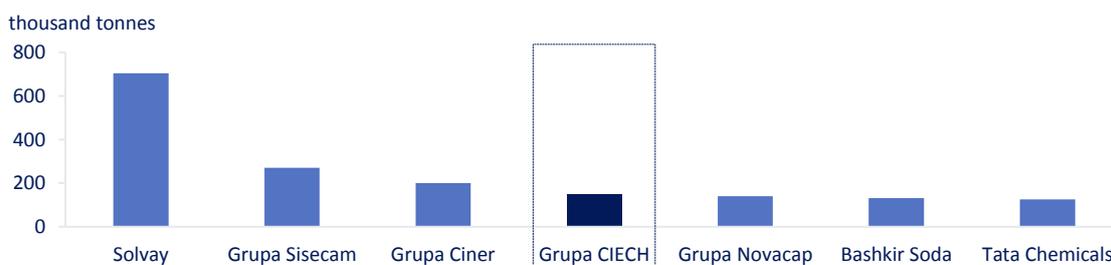
The target market for the CIECH Group for sodium bicarbonate is the local market and the foreign markets, especially Western Europe. The share in the sodium bicarbonate market of the CIECH Group is about 13% in Europe and 3% globally. Sodium bicarbonate is produced in two soda factories of the Group: in Inowrocław and in Stassfurt. CIECH Soda Polska S.A. is the only producer of sodium bicarbonate in Poland with about 70% share in the market. The CIECH Group’s share in the German market is about 25%.

FIGURE 15: PRODUCTION CAPACITIES OF SODIUM BICARBONATE BY REGION



Source: Own compilation based on data from IHS Markit

FIGURE 16: LARGEST PRODUCERS OF SODIUM BICARBONATE IN THE REGION COMPRISING EUROPE AND TURKEY BY PRODUCTION CAPACITY IN 2017



Source: Own compilation based on IHS Markit and others

In the European region (including Turkey) sodium bicarbonate production capacity is estimated at around 1.7 million tonnes per year; including the Ciner Group's new plant in Turkey with a capacity of 100 thousand tonnes/year, based on trona deposits, launched in early 2017. 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 the second largest producer in Europe (and fourth after Solvay, Sisecam Group and Ciner Group in the region, including Turkey).

Much like the soda ash markets, Polish and European markets for sodium bicarbonate 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 haemodialysis due to an increase in incidence of illnesses related with modern lifestyle in developed countries

An increase in demand for sodium bicarbonate is supported by global megatrends.

(primarily kidney diseases caused by diabetes). Due to growing requirements of environmental protection, a major increase in usage of sodium bicarbonate for fumes desulphurisation is expected.

The animal feed industry is usually the most vulnerable to economic shifts among the target sectors for sodium bicarbonate. 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.

As part of the Ciner Group's green field project concerning the soda ash plant in Turkey based on natural raw material (trona), the launch of new sodium bicarbonate production capacities (200 thousand tonnes/year) is also planned. This project may contribute to the periodical oversupply of the product in Europe and neighbouring regions. However, this will apply to the basic varieties of sodium bicarbonate (outside the health care segments).

Therefore, on the one hand, a response to the additional volumes of technical-grade sodium bicarbonate to be marketed by ETI, and on the other hand, as a result of the CIECH Group's strategy towards the development of highly processed products corresponding to global megatrends, the CIECH Group's Management Board decided to modernise and extend production lines for the manufacture of sodium bicarbonate at its plants in Germany. This will allow CIECH's portfolio to be expanded, among other things, to include purified soda for dialysis – the most specialised variety of this product used in the treatment of kidney diseases. Following the modernisation of the plant, which will be completed in 2019, CIECH Soda Deutschland will produce tens of thousands of tonnes of pharmaceutical-grade sodium bicarbonate annually.



#### Evaporated salt



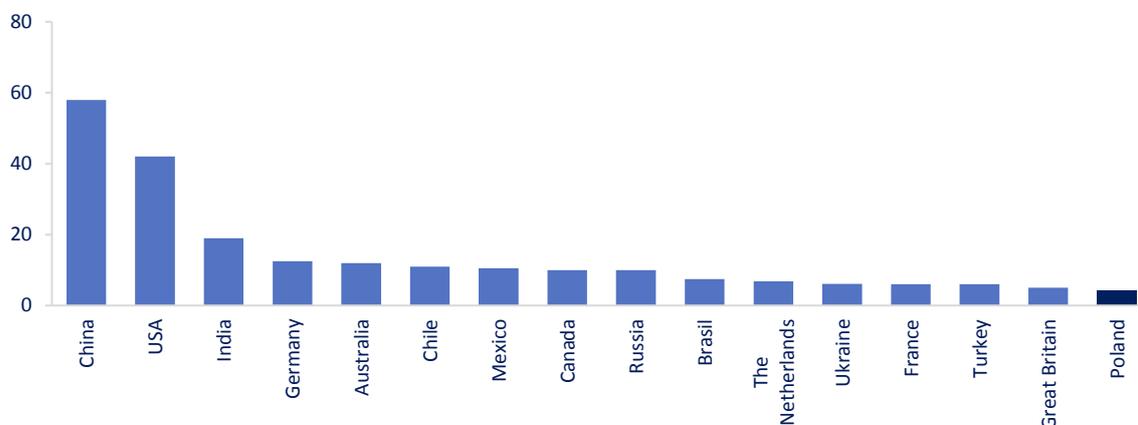
The CIECH Group is the largest Polish producer of **evaporated salt**, with a share in the Polish market of **approx. 55%**.

Worldwide salt production has been on an increasing trend over the last 5 years, and in 2017 it has probably exceeded 320 million tonnes. 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 Russia, producing 10 million tonnes per year). Poland (producing more than 4 million tonnes of salt a year) is ranked among the second tenth in the global ranking, with a share in total production of 1.3%.

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

Source: Own compilation based on USGS

million tonnes/year



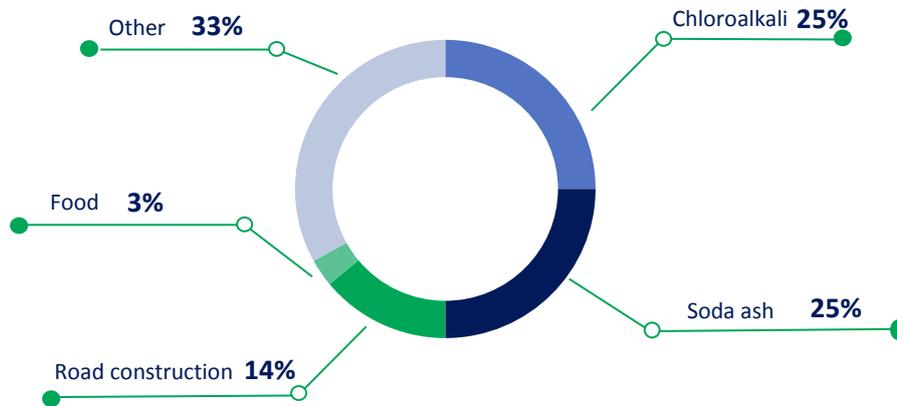
European salt production capacities are estimated at approximately 90 million tonnes per year (including producers using salt only for the purposes of their own chemical production, such as Solvay and Dow Chemical). The largest producer in Europe operating in the free market is Esco from the K+S Group, with capacities of 9-10 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 (more than 7 million tonnes per year; capacities used recently to a small extent) and a chemical concern, Akzo Nobel (more than 6 million tonnes per year).

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, feed, water treatment, and chemical industry.

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 the soda ash and chlorine-alkali industries (approx. half of the demand). In recent years, much less salt has been used for highway maintenance. Globally, use of salt in highway maintenance is significant only in North America (about 1/3). In other regions of the world, chemical sector (chlorine-alkali industry and soda ash industry) is the main buyers of salt. In Asia (outside China, where salt is used mainly by the chemical industry), Latin America, Africa and the Middle East salt is used primarily for direct consumption and food production.

FIGURE 18: SALT CONSUMPTION STRUCTURE IN EUROPE



Source: own estimates 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 2007-2017



Source: Own compilation based on the Central Statistical Office; \* estimates based on data for 11 months

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 and water treatment (food industry and direct consumption use majority of total salt produced by CIECH Soda Polska S.A.) and chemical industry.

The CIECH Group with its production capacity of 600 thousand tonnes per year is the biggest producer of evaporated salt on the Polish market, with a market share of approximately 55%.

In the coming year, the directions and further development of the global salt market 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 synthetic chlorine-alkali and soda ash) will be especially important for the chemical sector. The projected rate of growth of salt consumption on a global scale should be comparable to that of previous years, i.e. amount to 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 salt tablets from many industries and from households is visible. In turn, increasing volumes of evaporated salt of pharmacological 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.

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

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

### Crop protection chemicals (CPC)



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

More than 40% of sales of global crop protection chemicals is attributable to herbicides. Insecticides and fungicides represent less than 30% (each) of the global market value.

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



Source: Own compilation based on Phillips McDougall.

In 2017, as in previous years, the global market for crop protection agrochemicals was dominated by six major global producers: Syngenta (almost entirely acquired last year by ChemChina), Bayer CropScience and Monsanto (Monsanto is currently in the process of being acquired by Bayer CropScience) Dow AgroScience and DuPont (finally merged in August 2017) and BASF. 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%.

It is estimated that in 2017, the value of sales in the global market of crop protection chemicals reached USD 54 billion and was comparable to that of the previous year. Factors that contributed to the growth of sales were good economic conditions in Asia (especially in India) and North America. In contrast, the decline in demand in Brazil (increased use of genetically modified soya and high stocks of crop protection products) and unfavourable weather conditions in Europe had a negative impact.

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

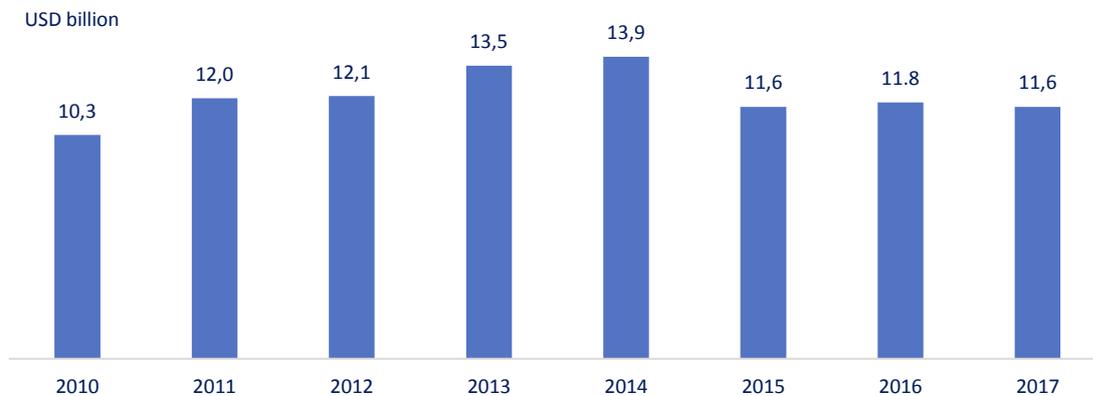


Source: Own compilation based on Phillips McDougall.

Asia and Latin America are currently the largest regional markets of crop protection chemicals with shares in global sales amounting to approx. 30% and 24% respectively. Slightly smaller markets are Europe and North America (about 20% each). The value of the European market in 2017 is estimated at approx. USD 11.6 billion. Consumption of crop protection chemicals in the other regions amounts to the remaining few percent of global consumption.

Since the beginning of the 21<sup>st</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). After a marked decline in 2015 in USD terms, largely linked to the appreciation of this currency, in 2016-2017 it has shown some stabilisation that is characteristic of very mature markets. It is estimated that in 2017 sales in Europe fell slightly due to adverse weather conditions. In general, prospects for further development of the European market of crop protection chemicals can be assessed as positive, especially in the area of generic products manufactured by the CIECH Group.

FIGURE 22: SALES OF PLANT CROP CHEMICALS IN EUROPE IN 2010-2017



Source: Own compilation based on Phillips McDougall.

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

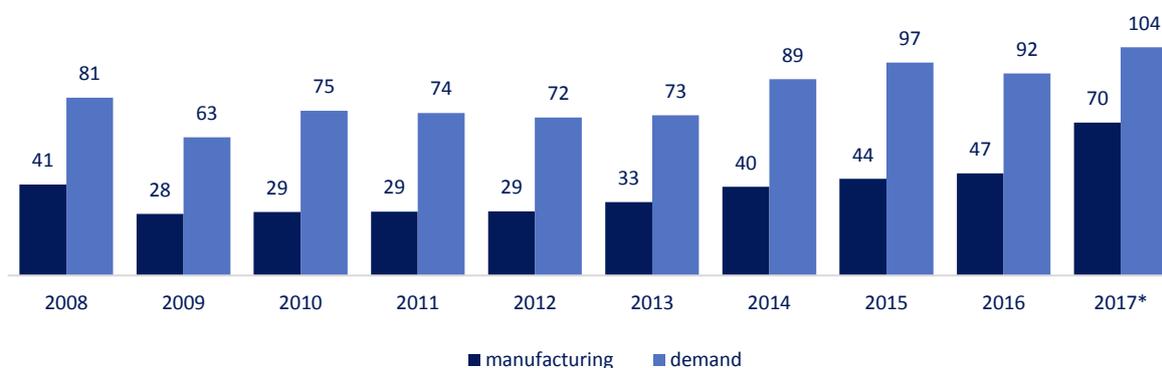
In Poland, since the beginning of this decade, the consumption of crop protection products has been following a growing trend with some fluctuations between 70-100 thousand tonnes/year. Despite the overall upwards trend in local CPC production, the Polish market is dominated by foreign suppliers with a very wide range of products.

Significantly more herbicides and fungicides are used in Poland compared to world consumption because of high percentage of grains in general cultivated area and considerable importance of gardening. Insecticides are used in much smaller quantities.

The long-term growth prospects for the CPC market remain attractive, especially in terms of generic products manufactured by the CIECH Group.

FIGURE 23 : VOLUME OF PRODUCTION AND CONSUMPTION OF CROP PROTECTION CHEMICALS IN POLAND IN THE YEARS 2008-2017

(in thousand tonnes)



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

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 crop 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%. Over the last 2 years, the CIECH Group has increased its share in the domestic market of crop protection chemicals and herbicides in general, despite the negative dynamics of its value. These results are the consequence of consistently implemented development strategy: intensification of research and development activities, expansion of product range, strengthening of sales and marketing areas. Further expansion into foreign markets is to be one of the foundations of further development.

High level of import is specific to Polish market and amounts to approximately 2/3 of demand 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.

In the next few years, the domestic market for crop protection products should return to its growth path (by value). Unit consumption of products per 1 ha is still much lower in Poland than in Western European countries. Moreover, it can be

The CIECH Group's development strategy in the field of crop protection products includes intensive research and development activities, the expansion of its product portfolio and progressive foreign

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 crop protection chemicals.

For the next 5 years, the global demand for crop protection products is also expected to grow moderately, with an average annual growth rate of 2.5%-3% (by value). Growth will mainly be driven by markets in China, Brazil, India, USA, Australia, Russia and Canada.

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 the consumption of crop protection chemicals in order to lower their negative influence on the natural environment will stimulate the uncontrolled consumption of crop protection chemicals.

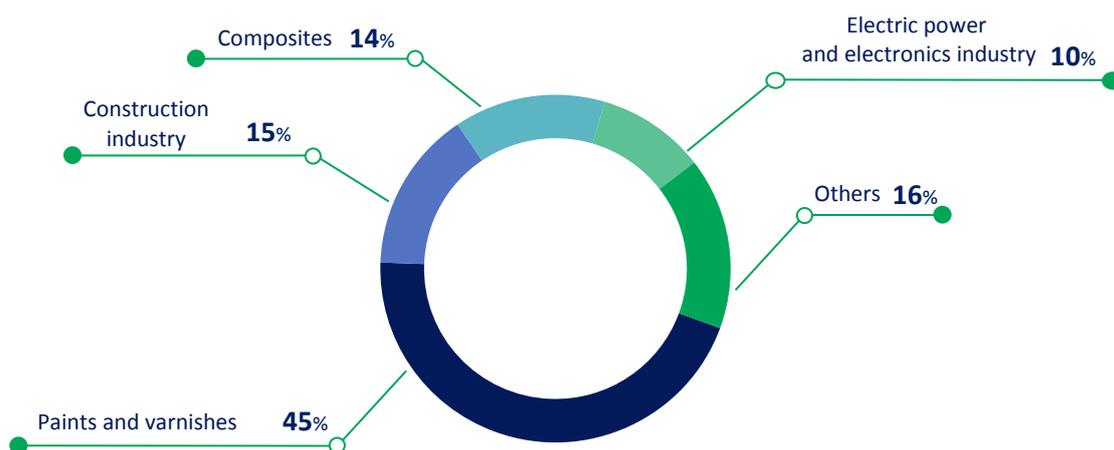
### Epoxy and saturated polyester resins



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

The global consumption of epoxy resins is concentrated in the coating industry (mainly powder coatings) as well as in the electrical and electronic industries – approximately 80% in total. In Europe, these resins are used primarily – in approx. 45% – for the production of powder paints and varnishes (chemically resistant, insulation, electrical insulation). Approx. 15% of the volume of resins is used in the construction sector (screeds, sealants, fillers, binders, coatings, wall coverings). A further dozen or so percent of epoxy resins is consumed for the production of composites, and approx. 10% – in electric and electronic sectors. In Central Europe is the share of the coatings segment (paints, etc.) in the entire market for these resins reaches 50%.

FIGURE 24: APPLICATION SEGMENTS OF EPOXY RESINS IN EUROPE

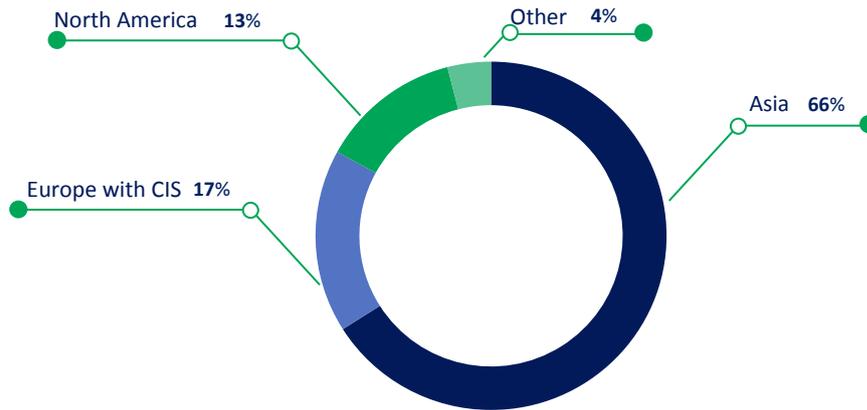


Source: Own compilation based on the IHS Markit data.

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). Due to the general oversupply, there have been no investment projects in recent years that have significantly increased capacity on a global scale. The largest global resin manufacturers are: Hexion (previously: Momentive), Olin (previously: 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 and one of a dozen or so in Europe (as regards base resins). Production capacity of the Group is estimated at 30 thousand tonnes per year. 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 Markit data.

The global market size of epoxy resins (liquid and solid) in 2017 is estimated at 3.3-3.4 million tonnes per year. The demand in Europe is estimated at about 360 thousand tonnes per year and the CIECH Group's share in the European market – at 4%. Respectively, domestic consumption is estimated at around 20 thousand tonnes/year, and our share is estimated at around 30%.

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 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 Europe. Above average growth prospects (CAGR of 4%–5%) are also assumed for a relatively small market of Central and Eastern Europe.

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, estimated at 220–230 thousand tonnes/year, is developing at the rate of 2%–3% on average per year.

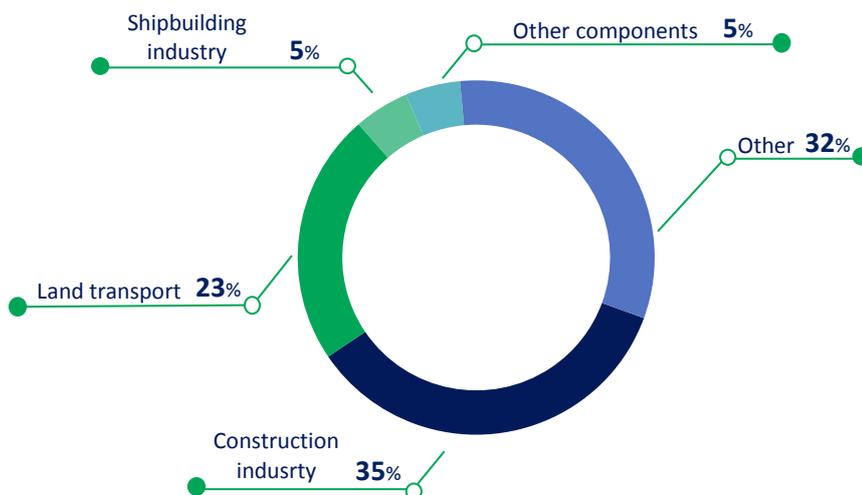
The saturated polyester resins market is largely concentrated. Trade within Europe is intensive, while inter-continental trade remains insignificant. The largest net importers are Germany and UK, while the largest net exporters are the Netherlands, Spain and Italy. Growth of the saturated polyester resin 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 and other Western and Central European countries.

### Unsaturated polyester resins

The global market for unsaturated polyester resins is related to their consumption in the construction industry (more than 50%) as well as the production of yachts and means of transport on land (around a dozen percent in each segment). The majority of these resins in Europe is used in construction and transport industries. The demand of these two segments accounts for around 60% of the market.

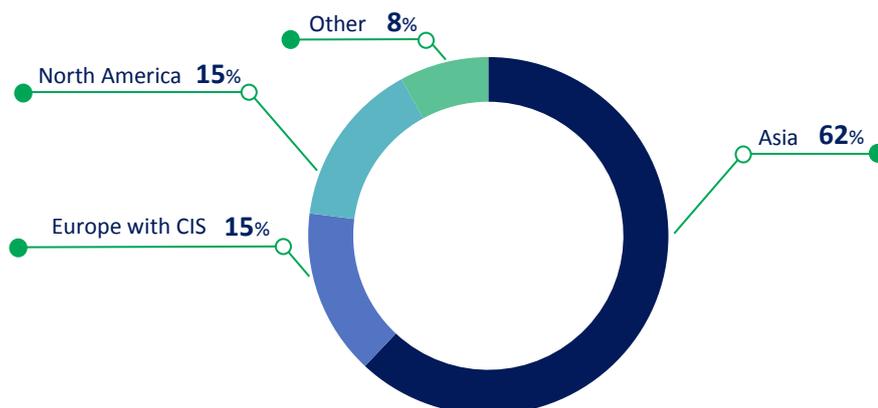
FIGURE 26: APPLICATION SEGMENTS OF UNSATURATED POLYESTER RESINS IN EUROPE



Source: Own compilation based on the IHS Markit data.

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 27: GEOGRAPHIC STRUCTURE OF UNSATURATED POLYESTER RESINS PRODUCTION CAPACITY



Source: Own compilation based on the IHS Markit data.

About 30 producers of these resins are active in Europe. The biggest four international concerns own about 60% of the European production capacity. These include international concerns: The Polynt-Reichhold Group (after the merger in 2017), 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. 20%. 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 the Czech Republic, Finland, Germany, France, Italy, UK and the Netherlands. The unsaturated polyester resins markets in Europe (including CIS) is estimated at about 550 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

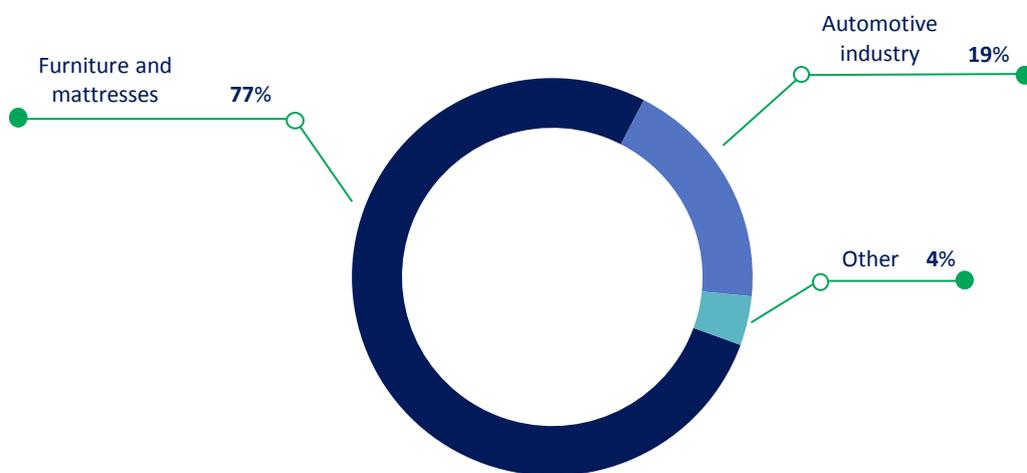
the other hand, exceptionally fast demand increase is expected from currently not very important segment of wind power plants. This will depend mainly on support for development of renewable energy sources by the European governments.

**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 75% of consumption of this material. Another 20% is used in automotive industry for production of seats and interiors. As a result, demand for foams is very sensitive to economic cycles.

FIGURE 28: APPLICATION SEGMENTS OF FLEXIBLE POLYURETHANE FOAMS IN EUROPE



Source: Own compilation based on the IAL Consultants and Europur 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 6 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.

Over the next few years, the global market for flexible polyurethane foams is expected to grow at a rate of 4%-5% (i.e. at a rate similar to the current one). This will mainly result from rising standards of living in developing countries (especially in Asia). European demand for polyurethane foams used in the furniture industry only is estimated at 1.30-1.35 million tonnes per year (including Turkey). Polish market is estimated at 185-190 thousand tonnes per year.

The furniture industry, which is one the key recipient of foams produced by the CIECH Group, has been in a very good economic situation for several years.

In general, demand for flexible polyurethane 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 domestic furniture industry, a very good economic situation has been observed for about 5 years. The previous year was another year in which this industry achieved an above-average increase in output sold compared to other industrial sectors

(+7.5% in 2017 compared to 12.1% in 2016 according to the Central Statistical Office (GUS)). 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.

## 2.2.3 SILICATES AND GLASS SEGMENT

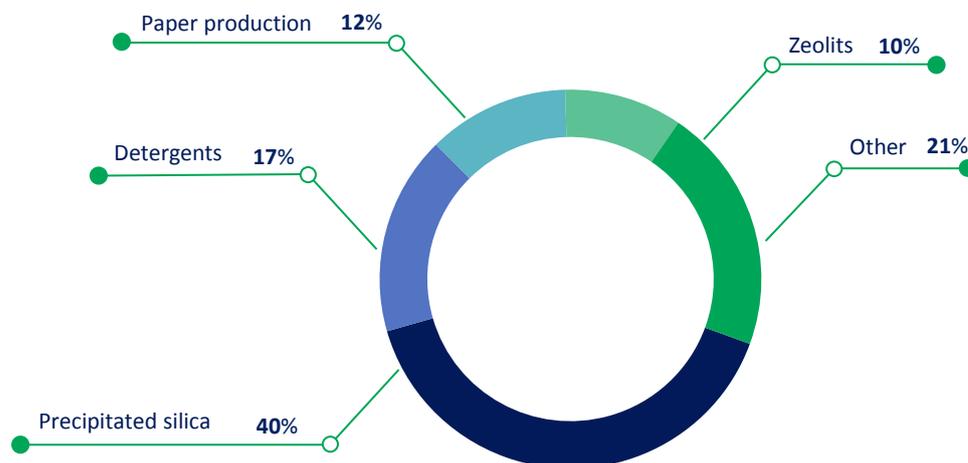
### Sodium silicates (glassy sodium silicate and sodium water glass)

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 40% 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 depends to a large extent on the number of citizens.

FIGURE 29: APPLICATION SEGMENTS OF SODIUM SILICATES IN EUROPE

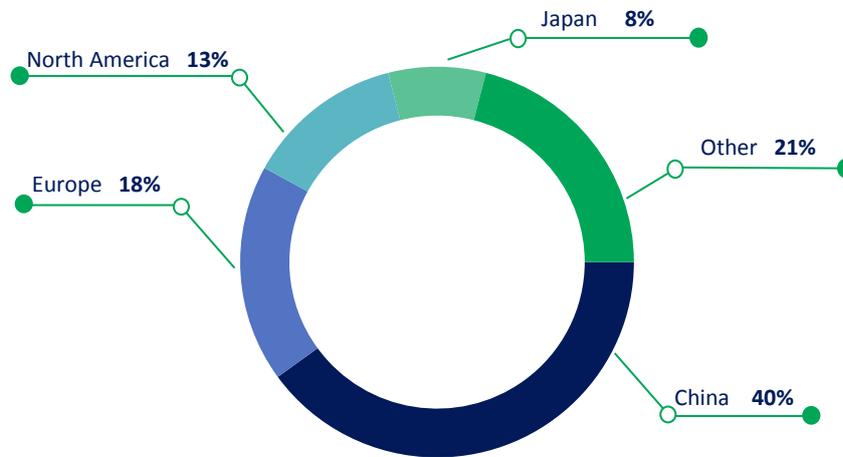


Source: Own compilation based on the IHS Markit data.

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%) and the most developed regions of the world (Europe, North America, Japan) are responsible for another approx. 40% of global production capacities in total.

Sodium silicates are one of the most popular non-organic chemicals, and are manufactured all over the world.

FIGURE 30: GEOGRAPHIC STRUCTURE OF PRODUCTION CAPACITIES OF SODIUM SILICATES



Source: Own compilation based on the IHS Markit data.

Sodium silicate production capacities in Europe (including Russia) are estimated at approx. 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 CIECH Vitrosilicon from the CIECH Group, are leaders of the European market. The Group's share in total production capacities in Europe (including Russia) is estimated at more than 7% for glassy sodium silicate (third largest producer).

The total demand for sodium silicates in Europe including CIS countries is estimated at nearly 1.8 million tonnes per year (expressed in glassy sodium silicate), and its annual average growth dynamics is 1.5%–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 2017 at the level of approx. 35% and 100%, respectively.

### Potassium silicates

Potassium silicates (in the form of glassy silicates or potassium water glass) are used as a raw material in the production of plaster and facade paints for construction, welding (production of electrodes), production of detergents, molecular sieves, fertilisers and crop protection chemicals.

The European market for potassium silicate is a mature market with a small growth rate of around 1% per year. The growth of this area is positively affected by segments which are growing at above-average rates: the market of coatings for construction (including plaster) and the market of molecular sieves (used for gas cleaning in various chemical processes). There are several glassy potassium silicates producers in the European market, with Van Baerle and PQ holding the dominant market share. We estimate that the production capacity in Europe is around 60 thousand tonnes per annum, including CIECH Group's capacity in CIECH Vitrosilicon S.A. of up to 3 thousand tonnes per year.

FIGURE 31: APPLICATION SEGMENTS OF POTASSIUM SILICATES IN EUROPE



Source: Own compilation based on the IHS Markit data.



CIECH Vitrosilicon S.A. specialises in the manufacturing of lanterns for vigil lights and is recognised as the leader of the Polish market.

### 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. has been without any doubt a leader of this market for 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 specialises in the manufacture of Comfort-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 Comfort-type jars is estimated by the CIECH Group at about 3.4 million pieces per year. The Group with a share of about 25% 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 32: 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 are implemented through:

TABLE 2: IMPLEMENTATION OF STRATEGIC OBJECTIVES

	<p>Strengthening of the leader's position in the soda segment in the key European markets through, among other things:</p> <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 sodium bicarbonate.</li> </ul>
	<p>Consistent strengthening of the market position in the organic segment through, among other things:</p> <ul style="list-style-type: none"> <li>• an increase of the production effectiveness</li> <li>• an increase in the use of the production capacity (resins and crop 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	<ul style="list-style-type: none"> <li>• Optimisation of the product portfolio.</li> <li>• Development of highly processed products to meet the customer requirements (resins).</li> <li>• Geographical expansion (crop protection products), with the support of CIECH R&amp;D Sp. z o.o., a company which is the Group's R&amp;D centre.</li> <li>• Active steps taken for the purpose of identification and implementation of new development initiatives focusing on the building of the CIECH Group's value.</li> </ul>

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 value. 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 2017

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 2017:

TABLE 3: ACTIVITIES OF THE CIECH GROUP IN 2017

 Soda segment	<ul style="list-style-type: none"> <li>• Increasing the share of sales to end customers</li> <li>• Taking over servicing of customer warehouses</li> <li>• Increase in carriage management as a service provided to customers with greater use of rail transport</li> <li>• Termination of ineffective agency agreements</li> <li>• Signing of medium-term trade agreements</li> <li>• Increased presence on Asian markets</li> <li>• Increasing the share of the Polish feed market (sodium bicarbonate)</li> <li>• Inter-segment diversification through introduction of new, highly processed products into the product portfolio – launch of an investment in pharmaceutical-grade soda for dialysis commencement of new investment projects to introduce new salt products such as salt granulate and salt licks.</li> <li>• Improvement in logistics with regard to salt following the construction of a high-storage warehouse.</li> </ul>
 Organic segment	<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 and foreign markets for crop protection chemicals (CPC). This programme includes increasing the level of product registrations on key markets and work on ensuring direct access to key active substances.</li> </ul>

- Development of the “Home and Garden” – ZIEMOVIT line which will allow for reaching new users.
- Increasing the production capacity of foams by building long block’s warehouse. Implementation of the development programme in CIECH Pianki Sp. z o.o. aimed at introducing new types of foams into the product portfolio, searching for new applications for current and new products as well as eliminating production bottlenecks after the construction of a long block warehouse, which will significantly increase production capacity.



Silicates and Glass segment

- Completion of the investment project in the Żary Plant, i.e. construction of a new furnace for sodium silicate glass for a long-term contract – reaching the planned capacity, adapting the Żary Plant to receive soda supplies by rail (reconstruction of the railway siding).



Optimisation and development

- Continued development of the R&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&D projects aimed at improving the efficiency of plants.

### 3.3 DEVELOPMENT PROSPECTS

The prospects for CIECH S.A.’s 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 the CIECH Group and CIECH S.A. in individual segments of its operations are discussed below. More information about market factors affecting the CIECH S.A.’s and 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:

- 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,
- Market conditions – including conditions on the raw material market and currency situation,
- Global economy situation, in particular, the direction of the Chinese economy GDP’s changes being difficult to foresee,
- EU banking system situation (affecting the credit activity of banks),
- Legal and regulatory environment.

TABLE4: DEVELOPMENT PROSPECTS OF THE CIECH GROUP AND CIECH S.A. IN INDIVIDUAL BUSINESS SEGMENTS

**Soda Segment**

Soda ash

Key trends in the market environment

Strategic activities of the CIECH Group

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Perspective of oversupply of soda and drop in prices in the European region in the years 2018-2019 in the face</li> </ul> | <ul style="list-style-type: none"> <li>• Maintaining the position on key markets (CEE, Indian subcontinent).</li> </ul> |
|--|---|

<p>of the planned launch of new generation capacity in Turkey.</p> <ul style="list-style-type: none"> <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>• 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>• 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>• Intensification of sales in prospective markets (South-East Asia, Africa).</li> <li>• Developing direct sales.</li> <li>• Further increase in carriage management.</li> <li>• Building strong, long-term relationships with key customers.</li> </ul>
---	--

#### Sodium bicarbonate

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Perspective of oversupply of soda and drop in prices of mainstream types (apart from dialysis soda) in the European region in the years 2018-2019 in the face of the planned launch of new generation capacity in Turkey.</li> <li>• Global megatrends supporting the increasing demand for sodium bicarbonate:                             <ul style="list-style-type: none"> <li>✓ Increased availability of treatment through haemodialysis 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 consumption 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 feed.</li> </ul> </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 sodium bicarbonate 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>• 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> </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 of existing products.</li> </ul>

- 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.
- Growing market of salt for feed and salt licks – development of agriculture in the country.
- Moderate increase in European and global demand for salt.
- Decreasing importance of rock salt with increasing importance of evaporated salt in the European industry.

## Organic Segment

### Crop protection products

Key trends in the market environment	Strategic activities of the CIECH Group
<ul style="list-style-type: none"> <li>• Expected further systematic growth (over the next few years) of the Polish market of crop protection products, where the unit consumption of products per 1 ha is still lower than in Western European countries with more developed agriculture.</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, 2016 and 2017 among the largest companies – suppliers of raw materials used by the AGRO business).</li> <li>• Controversies concerning genetically modified plants (GMO) in Europe which should effectively influence the higher demand level for traditional crop protection chemicals.</li> <li>• Decreasing arable land area on the global scale and increasing population – necessity of constant increase in the volume and quality of food.</li> <li>• Significant reduction in the supply of active substances and other additives by Chinese plants in connection with the “Blue Sky” policy to improve air quality. Rapid increase in prices and decrease in the availability of raw materials for the CPC industry.</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthening the position on the Polish market, development of distribution on foreign strategic markets for which a product portfolio is being prepared.</li> <li>• Development of new distribution channels, strengthening sales and marketing forces.</li> <li>• Extension of the product portfolio, access to technical documentation for selected active substances and continuous improvement of the product range, which is the responsibility of CIECH R&amp;D Sp. z o.o.</li> <li>• Intensification of marketing communication, further strengthening in the AGRO segment of the CIECH brand and strong product brands (CHWASTOX, AGROSAR).</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> <li>• Leveraging lower supply of active substances from China and increasing the share of CIECH Sarzyna in the global technical MCPA market (Europe, Australia and Oceania, North America).</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.</li> <li>• Expansion of the product portfolio – introduction of products e.g. for technical applications.</li> <li>• Enhancing cooperation with existing customers and searching for new prospective customers.</li> <li>• Further increase in production efficiency, e.g. through the utilisation of waste (reprocessed foams).</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 due to an increase in production of precipitated silica and a short-term increase in demand due to an increase in the price of soda lye.</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 a decrease in the consumption of sodium silicates in this area.</li> <li>• Continuous trend of rich and diverse design of lanterns for vigil lights accompanied by a simultaneous increase in the share of sales of vigil lights by retail chains.</li> <li>• Persistently low level of sales prices of standard twist-off jars for the food processing market.</li> </ul>	<ul style="list-style-type: none"> <li>• Further increase in the production capacity of glassy sodium silicate – conversion of the furnace in the Ilowa plant, increasing production capacity by more than 20%.</li> <li>• Focusing on the use of new applications of silicates and development of high-margin products.</li> <li>• Continuous expansion of the range of lanterns for vigil lights, intensification of efforts aimed at obtaining network contracts.</li> <li>• Development of the COMFORT product line – unique jars with glass cover.</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's value, so that they 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 that are of key importance for the CIECH Group, 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 high quality requirements set by the CIECH Group.

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.

It cannot be ruled out that the existing difficulties in the transport of bulk raw materials related to limited availability of rolling stock and limitations in connection with ongoing infrastructure repairs will affect the availability of raw materials to the CIECH Group.

**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. In order to minimise the risk related to the availability of rail transport, the CIECH Group actively utilises its own transport capacity.

---

##### 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, unfavourable 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.

---

##### 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.

---

---

### Operational risks

---

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 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.

---

#### Risk of personnel disputes

---

The CIECH Group employs 3,876 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.

---

### Business risks

---

#### 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 depends on many factors, including: demand, product prices, stability of supply, relevant production capacity, customer service quality, product quality, and availability of substitutes.

As regards the soda segment, the CIECH Group identifies a key risk related to the expansion of capacities in the Middle East, and particularly, to the competition from manufacturers of soda based on natural raw materials – trona. A Turkish capital group, CINER Group, has built new trona-based plants in Turkey of the total capacity of 3.3 million tonnes of soda ash and sodium bicarbonate annually, of which 500 tt was commissioned in the 1<sup>st</sup> quarter of 2017 and gradual start-up of the remaining volume has started in the second half of 2017.

A significant increase in product supply intensifies competition and may contribute to the adjustment of prices in Europe and its neighbouring regions, which may have an impact on the Group's financial performance in 2018, and this trend may continue for the years to come.

**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 own production capacity, improving the quality of all products, enhancing the efficiency of production processes, developing new soda-based products, expanding sales to new markets, optimising its customer portfolio and strengthening customer relations.

---

## Business risks

The Group puts considerable emphasis on the development of specialist products in the soda area, such as sodium bicarbonate 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, developments in China, the world's largest soda industry, involving a significant reduction in capacity expansion and production restrictions linked to the Blue Sky policy, should have a positive impact on the global balance of supply and demand.

### 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 cyclical, experiencing alternating periods of increased demand combined with an increase in prices and margins, followed by periods of decreased 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 cyclical 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.

### 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 dependent 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.

The upward trend in the price of coal used to produce steam and electricity at CIECH Soda Polska S.A.'s plants in Janikowo and Inowrocław continued in 2017. 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. This is caused by rising coking coal prices on the Polish market, as opposed to coking coal prices on world markets, which are still higher than in Poland. It cannot be ruled out that the price increase on the coal and coke market will not be stopped in 2018.

**The risk is estimated to be moderate**

---

## Business risks

---

### 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 (using anthracite as a cheaper substitute for coal), 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 alternative suppliers.

---

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

---

Large corporations are the leaders in the area of crop 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 crop 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 crop 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.

---

## Financial risks

---

### Tax risk

---

The CIECH Group companies tax burdens may increase as a result of current and future tax inspections as well as currently planned or potential changes in binding tax regulations as well as changes in the interpretation of existing 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 tax remitters, are introduced quickly and often in an unpredictable manner and impose additional extensive documentation obligations, the failure to comply with which may result in tax sanctions. 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

---

---

## Financial risks

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.

---

### Foreign exchange risk

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 to which the Group companies are exposed 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 -273.2 million, EUR -301.4 million and EUR -253.3 million, as at 31 December 2015, 31 December 2016 and 31 December 2017 respectively; in USD: USD 8.9 million, USD -18 million and USD 16.1 million, as at 31 December 2015, 31 December 2016 and 31 December 2017 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.

---

### Risk of insufficient insurance coverage

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.

---

---

## Financial risks

---

### Risk associated with debt financing

---

The Group finances its activities, to a large extent, with interest-bearing debt, i.e. with loans, finance leases. As at 31 December 2017, the debt on this account amounted to approximately PLN 1,355 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 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.

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 favourable provisions concerning conditions that limit the financing.

---

### 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.

---

### 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**

---

---

## Financial risks

---

### 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.

---

### 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:

- 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 favourable provisions concerning conditions that limit the financing.

---

## 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' credit-worthiness 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.

---

## 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 cross currency interest rate swaps or interest rate swaps.

### Legal and regulatory risks

---

#### 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.

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.

The CIECH Group's activity, in particular that of its soda companies, will be significantly affected by legal changes in the scope of the emissions trading system and amendments to the Water Law Act.

The process of implementing the new ETS Directive is planned to start in 2018. Despite the relatively favourable provisions for industry, allowances under the MSR (Market Stability Reserve) will expire above a certain level from 2023. The completion of works related to the revision of the Carbon Leakage List and the redefinition of new benchmarks are also scheduled for 2019.

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 industry 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.

---

#### Risk related to changes in regulations concerning registration of crop 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

---

---

### Legal and regulatory risks

---

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 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 crop protection products on the market imposes an increasing number of requirements on entities who place crop protection products on the market. The scope of registration tests required for the registration of crop protection products 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 crop protection products are cyclically assessed in terms of risk, which entails a re-evaluation of crop 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

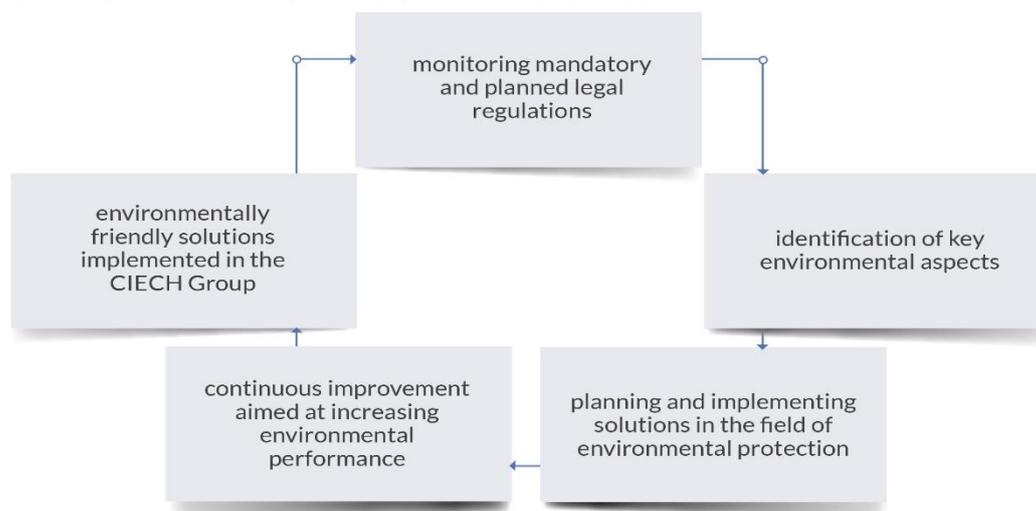
Information on corporate social responsibility was presented in detail in the **Non-financial Report of the CIECH Group for 2017**.

This report complements the data disclosed by the Group with environmental, social, employee and ethical issues. Key issues in the areas of environmental protection, sponsorship activities as well as research and development are presented below.

#### 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 33: 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 boilers and construction of an exhaust gas desulphurisation plant in Janikowo CHP plant
- establishment of a system for channelling 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 (CHP plants), 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 plants (LCP).

It should also be emphasized that in 2017 work on the so-called BAT Conclusions for LCP was completed. The installations have 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 on the emissions trading system, the ETS Directive has been revised, discussions have also started on the revision of the Carbon Leakage List, and there are plans to redefine benchmarks. The coming months will therefore be crucial for establishing the rules that will apply in the 4<sup>th</sup> accounting period, i.e. in the years 2021-2030.

#### 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, sodium bicarbonate, 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 sodium bicarbonate.	Indefinite

Company	Permit for	Validity period
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 crop 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 2017 amounted to PLN 71,716 thousand and as at 31 December 2016 – to PLN 80,128 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), 5 marketed substances in the quantity of 1-100 Mg/y are planned to be registered.

#### 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.

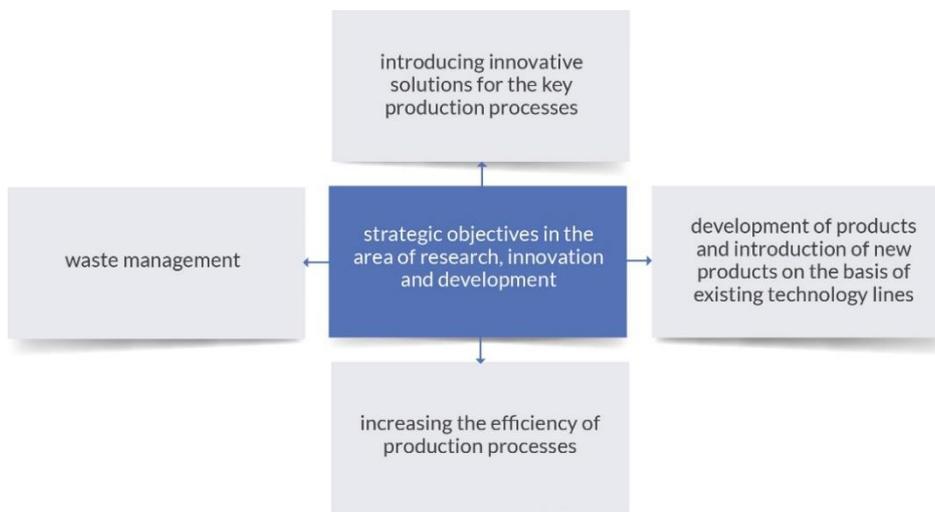
### 3.6 RESEARCH AND DEVELOPMENT

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 production processes 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 34: STRATEGIC OBJECTIVES IN THE AREA OF RESEARCH, INNOVATION AND DEVELOPMENT



#### Achievements in research and development

The Group runs a number of R&D projects in virtually all segments. These projects are implemented by a specially established company – CIECH R&D Sp. z o.o. These projects are implemented with the use of various support programmes.

#### Cooperation with universities and institutes

In 2017, CIECH R&D Sp. z o.o. implemented research and development projects in cooperation with renowned universities and institutes, including:

##### Universities

- Warsaw University of Technology
- Rzeszów University of Technology
- Nicolaus Copernicus University in Toruń

##### Institutes

- New Chemical Synthesis Institute Inorganic
- Institute For Chemical Processing of Coal – ICHPW in Zabrze
- Institute of Industrial Organic Chemistry – IPO in Warsaw

STB UNZWIG 51+51



**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.

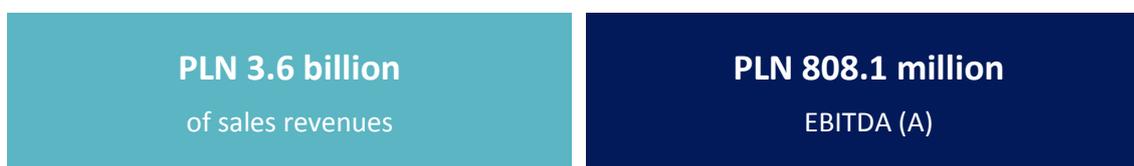
The consolidated financial statements of the CIECH Group and separate financial statements of CIECH S.A. have been prepared in accordance with accounting principles consistent with the International Financial Reporting Standards (IFRS) that were approved by the European Union (EU) and were effective as at 31 December 2017.

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 2017, results of their operations and cash flows for the year ended 31 December 2017. 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 2017, the CIECH Group generated:



In 2017, the Group's results were most significantly shaped by:

- increased sales of soda ash volume, despite growing supply from Turkish competitors,
- declining soda and salt prices,
- increased prices of basic raw materials for soda production,
- strengthening of PLN and RON against EUR and USD,
- good season for crop protection products, in particular very successful pre-season sales.

In 2017, the CIECH Group generated sales revenues in the amount of PLN 3,579,393 thousand and adjusted EBITDA of PLN 808,137 thousand. Net profit on continuing operations reached PLN 393,975 thousand, net cash increased by PLN 73,922 thousand and total assets amounted to PLN 4,643,511 thousand as at the end of 2017.

### Forecast performance of the CIECH Group

The CIECH Group did not publish any forecasts for 2017.

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

TABLE 7: CONSOLIDATED STATEMENT OF PROFIT OR LOSS

	2017	2016	2015	Change 2017/2016
<b>CONTINUING OPERATIONS</b>				
Sales revenues	3,579,393	3,455,335	3,273,014	3.6%
Cost of sales	(2,662,729)	(2,415,670)	(2,407,469)	(10.2%)
<b>Gross profit/(loss) on sales</b>	<b>916,664</b>	<b>1,039,665</b>	<b>865,545</b>	<b>(11.8%)</b>
Selling costs	(263,481)	(231,462)	(194,866)	(13.8%)
General and administrative expenses	(141,402)	(157,990)	(145,214)	10.5%
Other operating income/expense	77,027	10,107	(35,649)	662.1%
<b>Operating profit/(loss)</b>	<b>588,808</b>	<b>660,320</b>	<b>489,816</b>	<b>(10.8%)</b>
Net financial income/expenses	(73,288)	(36,044)	(212,597)	(103.3%)
Share of profit of equity-accounted investees	225	674	163	(66.6%)
Income tax	(121,770)	(30,814)	68,623	(295.2%)
<b>Net profit / (loss)</b>	<b>393,975</b>	<b>594,136</b>	<b>346,005</b>	<b>(33.7%)</b>
including:				
Net profit/(loss) attributed to non-controlling interest	562	623	3,018	(9.8%)
Net profit/(loss) attributable to shareholders of the parent company	393,413	593,513	342,987	(33.7%)
EBITDA from continuing operations	833,196	883,794	707,538	(5.7%)
Adjusted EBITDA from continuing operations*	808,137	876,832	748,456	(7.8%)

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

### Sales revenues

Consolidated sales revenues net from continuing operations of the CIECH Group for 2017 amounted to PLN 3,579,393 thousand. Compared to the previous year, revenues increased by PLN 124,058 thousand (i.e. by 3.6%). The changes were mainly due to market factors.

### Gross profit on sales

Cost of goods sold for 2017 amounted to PLN 2,662,729 thousand, which represents an increase by PLN 247,059 thousand (i.e. by 10.2%) compared to the cost of goods sold in 2016, amounting to PLN 2,415,670 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 2017 amounted to PLN 263,481 thousand which represents an increase by PLN 32,019 thousand (i.e. by 13.8%), compared to PLN 231,462 thousand in 2016. Selling costs accounted for 7.4% of sales revenues for 2017 (compared to 6.7% for 2016). This increase resulted mainly from higher transport costs due to higher sales volume, increased share of carriage management and increased transport rates in some markets.

General and administrative expenses for 2017 amounted to PLN 141,402 thousand which is a decrease by PLN 16,588 thousand (i.e. by 19.3%) as compared to PLN 157,990 thousand in 2016. The decrease in these costs as compared to 2016 resulted mainly from lower expenditures on strategic projects implemented by the Group and lower costs of employee benefits.

Other operating income for 2017 amounted to PLN 116,560 thousand which represents an increase by PLN 29,950 thousand (i.e. by 34.6%), compared to the amount of PLN 86,610 thousand for 2016. The increase in other operating income in 2017 resulted primarily from a positive revaluation of investment property to fair value, reversal of provisions for liabilities, reversal of impairment write-downs on receivables and sale of surplus CO<sub>2</sub> certificates held by the Romanian company.

Other operating expenses for 2017 amounted to PLN 39,533 thousand which represents a decrease by PLN 36,970 thousand from 2016, when these expenses amounted to PLN 76,503 thousand. The lower level of other operating expenses results, among others, from lower costs of disposal of non-financial non-current assets, lower amounts of provisions for liabilities and write-downs on receivables.

Operating profit for 2017 reached PLN 588,808 thousand, while in the comparable period it amounted to PLN 660,320 thousand.

### Financing activities and net profit/loss

Financial income for 2017 amounted to PLN 13,499 thousand and recorded a decrease compared to the corresponding period of the preceding year, when it amounted to PLN 23,551 thousand.

Financial expenses for 2017 amounted to PLN 86,787 thousand and recorded a significant increase as compared to the corresponding period of the preceding year, when they amounted to PLN 59,595 thousand.

The contributors in the area of financing activities included mainly negative exchange differences related to positive currency exposure in EUR and USD on trading activities and valuation of loans denominated in EUR. Costs of servicing external debt remained at a level similar to the one recorded in the corresponding period.

The consolidated net profit for 2017 amounted to PLN 393,975 thousand (of which PLN 393,413 thousand was a net profit attributable to the shareholders of the parent company and PLN 562 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 121,770 thousand.



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

TABLE 8: CONSOLIDATED EBITDA OF THE CIECH GROUP

	2017	2016	2015	Change 2017/2016
Net profit/(loss) on continuing operations	393,975	594,136	346,005	(33.7%)
Income tax	121,770	30,814	(68,623)	295.2%
Share of profit of equity-accounted investees	(225)	(674)	(163)	66.6%
Financial expenses	86,787	59,595	219,003	45.6%
Financial income	(13,499)	(23,551)	(6,406)	42.7%
Amortisation/depreciation	244,388	223,474	217,722	9.4%
<b>EBITDA from continuing operations</b>	<b>833,196</b>	<b>883,794</b>	<b>707,538</b>	<b>(5.7%)</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 financial costs/income plus profit/loss on sale of a discontinued operation plus amortisation and depreciation. 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 2017 amounted to PLN 833,196 thousand which represents a decrease by PLN 50,598 thousand from the amount of PLN 883,794 thousand earned in 2016. EBITDA decreased mainly due to a decrease in gross profit on sales, higher level of selling expenses which was offset by a lower level of general administrative expenses and improved result on other operating activities.

The EBIT margin ratio amounted to 16.4% at the end of 2017 (19.1% in the preceding year) and the EBITDA margin ratio amounted to 23.3% (25.6% in the preceding year). The EBIT margin ratio excluding one-off events amounted to 10.5% at the end of 2017 (14.0% in the preceding year), and the EBITDA margin ratio excluding one-off events amounted to 22.6% (25.4% in the preceding year).

### Adjusted EBITDA

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

TABLE 9: ADJUSTED EBITDA OF THE CIECH GROUP

	2017	2016	2015
<b>EBITDA on continued operations</b>	<b>833,196</b>	<b>883,794</b>	<b>707,538</b>
One-offs including:	(25,059)	(6,962)	40,918
Impairment (a)	1,238	1,612	2,119
Cash items (b)	(2,017)	(3,371)	1,143
Non-cash items (without impairment) (c)	(24,280)	(5,203)	37,656
<b>Adjusted EBITDA from continuing operations</b>	<b>808,137</b>	<b>876,832</b>	<b>748,456</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 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 2017, 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, corporate functions and consolidation exclusions. The structure of sales revenues, by business segment, has not changed significantly in comparison with 2016. Invariably, the largest share in revenues was attributed to the sales of soda segment products (soda ash, sodium bicarbonate and salt), i.e. 67.9%.



<sup>2</sup>Other companies may calculate adjusted EBITDA in a manner different from the manner applied by the CIECH Group. Adjusted 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 35: REVENUES AND ADJUSTED EBITDA IN THE SODA SEGMENT OF THE CIECH GROUP



In 2017, the Group's results in the soda segment were most significantly shaped by:

**Positive developments:**

- increased volume of production and sales of soda, in particular increased sales of soda from Romania (unit stopped in August 2016 due to the lack of steam supplies from CET Govora),
- increase in sale prices on dollar markets in fourth quarter,
- development of specialist products in the area of sodium bicarbonate,
- improved results on energy sold from Germany, mainly as a result of higher volumes and partial hedging of prices of energy and gas used for energy production.

**Negative developments:**

- drop in prices of soda ash caused by pressure from competitors, mainly from Turkey,
- increased prices of basic raw materials, mainly energy fuels (coal, gas) and furnace fuels (coke and anthracite),
- strengthening of PLN and RON against EUR and USD (negative effect partially offset by hedging),
- decreased volume and prices of salt sales.

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

	2017	2016	2015	Change 2017/2016	Change %	% of total revenues in 2017	% of total revenues in 2016	% of total revenues in 2015
<b>Sales revenues</b>	<b>2,429,920</b>	<b>2,446,568</b>	<b>2,241,985</b>	<b>(16,648)</b>	<b>(0.7%)</b>	<b>67.9%</b>	<b>70.8%</b>	<b>68.5%</b>
Dense soda ash	1,371,834	1,432,439	1,267,148	(60,605)	(4.2%)	38.3%	41.5%	38.7%
Light soda ash	490,220	448,085	436,637	42,135	9.4%	13.7%	13.0%	13.3%
Salt	169,909	181,374	170,203	(11,465)	(6.3%)	4.7%	5.2%	5.2%
Sodium bicarbonate	158,309	162,390	153,580	(4,081)	(2.5%)	4.4%	4.7%	4.7%
Energy	97,645	90,853	64,237	6,792	7.5%	2.7%	2.6%	2.0%
Gas*	7,645	20,124	37,885	(12,479)	(62.0%)	0.2%	0.6%	1.2%
Calcium chloride	25,614	23,256	18,282	2,358	10.1%	0.7%	0.7%	0.6%
Other products	60,310	58,732	66,928	1,578	2.7%	1.8%	1.7%	2.0%
Revenues from inter-segment transactions	48,434	29,315	27,085	19,119	65.2%	1.4%	0.8%	0.8%
<b>Gross profit /(loss) on sales</b>	<b>756,073</b>	<b>879,214</b>	<b>721,811</b>	<b>(123,141)</b>	<b>(14.0%)</b>			
<b>EBITDA</b>	<b>704,370</b>	<b>799,437</b>	<b>625,098</b>	<b>(95,067)</b>	<b>(11.9%)</b>			
<b>Adjusted EBITDA</b>	<b>690,667</b>	<b>793,921</b>	<b>651,002</b>	<b>(103,254)</b>	<b>(13.0%)</b>			

\* Resale of surplus gas.

Sales in the soda segment for 2017 amounted to PLN 2,429,920 thousand which represents a decrease by PLN 16,648 thousand (i.e. by (0.6%)) as compared to sales for 2016, amounting to PLN 2,446,568 thousand. The slight decrease was mainly due to a decline in sales prices of soda ash and was partly offset by higher sales volumes.

The gross profit on sales in the soda segment for 2017 amounted to PLN 756,073 thousand compared to PLN 879,214 thousand for 2016. This decrease was driven by a decline in product sales prices and an increase in manufacturing costs as a result of higher prices of basic raw materials (furnace fuel, natural gas, hard coal).

	<b>ORGANIC SEGMENT</b>	<b>24%</b>	of the CIECH Group's revenues in 2017
	Crop protection products   Polyurethane foams   Resins		

FIGURE 36: REVENUES AND ADJUSTED EBITDA IN THE ORGANIC SEGMENT OF THE CIECH GROUP



In 2017, the Group's results in the organic segment were most significantly shaped by:

**Positive developments:**

- increased sales volume of crop protection products, despite a drop in demand on the domestic market,
- efficient pre-season sales of crop protection chemicals earned in the 4<sup>th</sup> quarter of 2017,
- increased volume of foam sales, among others as a result of the utilisation of increased storage potential in the production process,
- increased prices of PUR foams as a result of both increases in raw material prices and increased demand.

**Negative developments:**

- less favourable market conditions affecting the deterioration of the relationship between product prices and raw material prices,
- increased prices of raw materials for the production of PUR foams,
- limited availability of raw materials,
- decreased volume of resins sales.

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

	2017	2016	2015	Change 2017/2016	Change %	% of total revenues in 2017	% of total revenues in 2016	% of total revenues in 2015
<b>Sales revenues</b>	<b>871,557</b>	<b>766,119</b>	<b>769,877</b>	<b>105,438</b>	<b>13.8%</b>	<b>24.3%</b>	<b>22.2%</b>	<b>23.5%</b>
Resins	316,452	297,891	343,080	18,561	6.2%	8.8%	8.7%	10.5%
Polyurethane foams	314,174	245,120	218,881	69,054	28.2%	8.8%	7.1%	6.7%
Crop protection chemicals	224,032	208,903	192,678	15,129	7.2%	6.3%	6.0%	5.9%
Other	14,531	10,063	12,101	4,468	44.4%	0.3%	0.3%	0.3%
Revenues from inter-segment transactions	2,368	4,142	3,137	(1,774)	(42.8%)	0.1%	0.1%	0.1%
<b>Gross profit /(loss) on sales</b>	<b>153,068</b>	<b>136,888</b>	<b>134,548</b>	<b>16,180</b>	<b>11.8%</b>			
<b>EBITDA</b>	<b>96,768</b>	<b>77,832</b>	<b>86,101</b>	<b>18,936</b>	<b>24.3%</b>			
<b>Adjusted EBITDA</b>	<b>96,517</b>	<b>79,543</b>	<b>85,751</b>	<b>16,974</b>	<b>21.3%</b>			

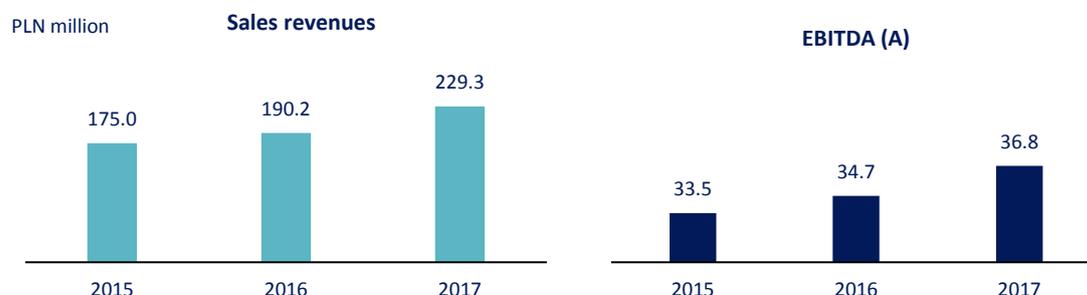
Sales in the organic segment for 2017 amounted to PLN 871,557 thousand which represents an increase by PLN 105,438 thousand (i.e. by 13.8%) as compared to sales for 2016, amounting to PLN 766,119 thousand. The increase was driven mainly by the higher volume of sales of PUR foams.

The gross profit on sales in the organic segment for the year ended 31 December 2017 amounted to PLN 153,068 thousand compared to PLN 136,888 thousand for 2016. This increase resulted from improved performance in each product group.


**SILICATES AND GLASS SEGMENT**

Glass products | Water glass | Silicates

**6%** | of the CIECH Group's revenues in 2017

**FIGURE 37: REVENUES AND ADJUSTED EBITDA IN THE SILICATES AND GLASS SEGMENT OF THE CIECH GROUP**


In 2017, the Group's results **in the silicates and glass segment** were most significantly shaped by:

**Positive developments:**

- increased sales volume of sodium silicate due to the implementation of the contract with Solvay – full year of sales of the product from the facility launched in July 2016,
- stable sales of sodium silicates.

**Negative developments:**

- aggressive competition in the sodium silicate market mainly due to significant under-utilisation of production capacity among other producers,
- increased competition in the glass packaging area and the resulting decrease in prices.

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

	2017	2016	2015	Change 2017/2016	Change %	% of total revenues in 2017	% of total revenues in 2016	% of total revenues in 2015
<b>Sales revenues</b>	<b>229,345</b>	<b>190,168</b>	<b>175,012</b>	<b>39,177</b>	<b>20.6%</b>	<b>6.4%</b>	<b>5.5%</b>	<b>5.3%</b>
Sodium silicates	144,291	106,562	81,093	37,729	35.4%	4.0%	3.2%	2.5%
Potassium silicates	5,696	5,048	5,431	648	12.8%	0.2%	0.1%	0.1%
Container glass	78,578	77,279	85,156	1,299	1.7%	2.2%	2.2%	2.6%
Other	771	1,275	3,318	(504)	(39.5%)	0.0%	0.0%	0.1%
Revenues from inter-segment transactions	9	4	14	5	125.0%	0.0%	0.0%	0.0%
<b>Gross profit /(loss) on sales</b>	<b>52,400</b>	<b>51,050</b>	<b>45,437</b>	<b>1,350</b>	<b>2.6%</b>			
<b>EBITDA</b>	<b>36,844</b>	<b>34,675</b>	<b>33,615</b>	<b>2,169</b>	<b>6.3%</b>			
<b>Adjusted EBITDA</b>	<b>36,768</b>	<b>34,676</b>	<b>33,462</b>	<b>2,092</b>	<b>6.0%</b>			

Sales in the silicates and glass segment for 2017 amounted to PLN 229,345 thousand which represents an increase by PLN 39,177 thousand (i.e. by 20.6%) as compared to sales for 2016, amounting to PLN 190,168 thousand. The increase resulted primarily from higher sales of sodium silicates.

The gross profit on sales in the silicates and glass segment for 2017 amounted to PLN 52,400 thousand compared to PLN 51,050 thousand for the year ended 31 December 2016.



**TRANSPORT SEGMENT**

Transport services | Railway transport | Transhipment

**3%** of the CIECH Group's revenues in 2017

FIGURE 38: REVENUES AND ADJUSTED EBITDA IN THE TRANSPORT SEGMENT OF THE CIECH GROUP



In 2017, 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 rail services provided to the Group,

**Negative developments:**

- large number of railway line repairs causing drop in an average commercial speeds and as a result, a decline in business efficiency.

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

	2017	2016	2015	Change 2017/2016	Change %	% of total revenues in 2017	% of total revenues in 2016	% of total revenues in 2015
<b>Sales revenues</b>	<b>124,454</b>	<b>119,220</b>	<b>122,628</b>	<b>5,234</b>	<b>4.4%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>3.7%</b>
Transport services	11,097	11,393	13,205	(296)	(2.6%)	0.3%	0.3%	0.4%
Revenues from inter-segment transactions	113,357	107,827	109,423	5,530	5.1%	3.2%	3.1%	3.3%
<b>Gross profit /(loss) on sales</b>	<b>16,855</b>	<b>14,465</b>	<b>13,613</b>	<b>2,390</b>	<b>16.5%</b>			
<b>EBITDA</b>	<b>15,610</b>	<b>8,854</b>	<b>15,535</b>	<b>6,756</b>	<b>76.3%</b>			
<b>Adjusted EBITDA</b>	<b>16,064</b>	<b>13,976</b>	<b>12,720</b>	<b>2,088</b>	<b>14.9%</b>			

Sales in the transport segment for 2017 amounted to PLN 124,454 thousand which represents an increase by PLN 5,234 thousand (i.e. by 4.4%) as compared to sales for 2016, amounting to PLN 119,220 thousand.

The gross profit on sales in the transport segment for the year ended 31 December 2017 amounted to PLN 16,855 thousand compared to PLN 14,465 thousand for the year ended 31 December 2016.



**OTHER ACTIVITIES SEGMENT**

Services | Distribution | Sale and management of real property

Sales in the other activities segment for 2017 amounted to PLN 122,792 thousand which represents a decrease by PLN 14,599 thousand (i.e. by 13.5%) as compared to sales for 2016, amounting to PLN 108,193 thousand.

The gross profit on sales in the other activities segment for the year ended 31 December 2017 amounted to PLN 28,098 thousand compared to PLN 32,287 thousand for the year ended 31 December 2016.

### 4.2.3 ASSET POSITION OF THE CIECH GROUP

TABLE 14: BASIC CONSOLIDATED BALANCE SHEET DATA

	2017	2016	2015	Change 2017/2016
<b>Total assets</b>	<b>4,643,511</b>	<b>4,501,892</b>	<b>3,951,251</b>	<b>3.1%</b>
Total non-current assets	3,204,963	3,209,515	2,901,325	(0.1%)
Total current assets	1,438,548	1,292,377	1,049,926	11.3%
Inventory	364,517	299,265	293,631	21.8%
Current receivables	523,068	515,542	499,196	1.5%
Cash and cash equivalents	489,754	414,369	202,935	18.2%
Short-term financial assets	57,979	59,971	50,781	(3.3%)
Non-current assets held for sale	3,230	3,230	3,383	0.0%
<b>Total equity</b>	<b>2,184,645</b>	<b>1,763,492</b>	<b>1,341,504</b>	<b>23.9%</b>
Equity attributable to shareholders of the parent	2,187,596	1,766,827	1,345,576	23.8%
Non-controlling interest	(2,951)	(3,335)	(4,072)	11.5%
Total non-current liabilities	1,369,282	1,695,514	1,844,005	(19.2%)
Total current liabilities	1,089,584	1,042,886	765,742	4.5%

#### Assets

As at the end of 2017, the Group's non-current assets amounted to PLN 3,204,963 thousand. As compared to the balance as at 31 December 2016, the value of non-current assets decreased slightly by PLN 4,552 thousand. The change is mainly related to the investments in property, plant and equipment (partially offset by depreciation), valuation of financial instruments and measurement of investment properties to fair value.

The Group's current assets amounted to PLN 1,438,548 thousand as at 31 December 2017. The largest components of non-current assets included: short-term receivables accounting for 35.4%, inventory accounting for 25.3% as well as cash and cash equivalents accounting for 34.0% of total current assets. Compared to the end of December 2016, the value of current assets increased by PLN 146,171 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 crop protection chemicals as well as the increased volume of sales of PUR foams in the organic segment and silicates in the Silicates and Glass segment.

#### Capital 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 2017, the CIECH Group's liabilities (non-current and current) amounted to PLN 2,458,866 thousand, which is a decrease compared to the end of December 2016 by PLN 279,534 thousand (i.e. by -10.2%).

The debt ratio amounted to 53.0% as at 31 December 2017 (at the end of December 2016 to 60.8%). The consolidated net debt of the Group amounted to PLN 936,674 thousand as at 31 December 2017 and decreased in comparison to the balance as at the end of December 2016 by PLN 259,824 thousand. The Group's debt decreased due to the redemption on 5 December 2017 of domestic bonds issued by CIECH SA in the amount of PLN 160,000 thousand.

#### Debt instruments currently used

The Group's sources of debt financing include: 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

	2017	2016	2015	Change 2017/2016
Net cash from operating activities	628,832	836,871	457,090	(24.9%)
Net cash from investment activities	(389,137)	(445,582)	(486,100)	12.7%
Net cash from financial activities	(165,773)	(177,545)	182,887	6.6%
<b>Total net cash flows</b>	<b>73,922</b>	<b>213,744</b>	<b>153,877</b>	<b>(65.4%)</b>
free cash flows	239,695	391,289	(29,010)	(38.7%)

In 2017, total net cash flows were positive and amounted to PLN 73,922 thousand. Compared to the same period of the previous year, the cash flows generated by the Group were lower by PLN 139,822 thousand. Cash flows from operating activities amounted to PLN 628,832 thousand and decreased as compared to the same period in 2016 by PLN 208,039 thousand. In 2017, the net cash flows from investing activities were negative, which was mainly the result of expenses for an investment programme implemented by the Group. The net cash from financial activities was negative and amounted to PLN 165,773 thousand. In comparison to 2016, they were higher by PLN 11,772 thousand. The balance of financial activities was mainly driven by redemption of issued bonds in the amount of PLN 160,000 thousand.

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

	2017	2016	2015
Financial surplus ((net profit/(loss) on continuing operations + depreciation)	638,363	817,610	563,727
Other adjustments to net profit/(loss) on continuing operations	38,364	(72,968)	9,710
<b>Adjusted financial surplus (1+2)</b>	<b>676,727</b>	<b>744,642</b>	<b>573,437</b>
Change in working capital	(47,895)	92,229	(116,347)
<b>Net cash from operating activities (3+4)</b>	<b>628,832</b>	<b>836,871</b>	<b>457,090</b>
Net cash from investing activities	(389,137)	(445,582)	(486,100)
<b>Free cash flow (5+6)</b>	<b>239,695</b>	<b>391,289</b>	<b>(29,010)</b>

In 2017, 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

Liquidity ratios as at 31 December 2017 increased as compared to their level as at 31 December 2016. The current ratio, calculated as the ratio of total current assets to total current liabilities, amounted to 1.32 as at 31 December 2017, while the quick liquidity ratio amounted to 0.99.

TABLE 17: LIQUIDITY RATIOS OF THE CIECH GROUP

	2017	2016	2015
Current ratio	1.32	1.24	1.37
Quick ratio	0.99	0.95	0.99

### Working capital of the CIECH Group

As at the end of 2017, working capital, defined as the difference between current assets and short-term liabilities, adjusted by relevant balance sheet items (cash and cash equivalents and short-term loans) was positive and amounted to PLN 35,714 thousand, which is an increase by PLN 61,496 thousand compared to the end of 2016.

TABLE18: WORKING CAPITAL OF THE CIECH GROUP

	2017	2016	2015
1. Current assets, including:	1,438,548	1,292,377	1,049,926
Inventory	364,517	299,265	293,631
Trade receivables and services and advances for deliveries	339,092	298,449	277,308
2. Cash and cash equivalents and short-term investments	547,733	474,340	253,716
<b>3. Adjusted current assets (1-2)</b>	<b>890,815</b>	<b>818,037</b>	<b>796,210</b>
4. Current liabilities, including:	1,089,584	1,042,886	765,742
Trade liabilities and advances taken	387,331	368,937	273,332
5. Short-term credits and other current financial liabilities*	234,483	199,067	46,274
<b>6. Adjusted current liabilities (4-5)</b>	<b>855,101</b>	<b>843,819</b>	<b>719,468</b>
<b>7. Working capital including short-term credits(1-4)</b>	<b>348,964</b>	<b>249,491</b>	<b>284,184</b>
<b>8. Working capital (3-6)</b>	<b>35,714</b>	<b>(25,782)</b>	<b>76,742</b>

\* 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 anticipated capital expenditures, potential working capital requirements and timely service of debt.

### The CIECH Group's profitability ratios

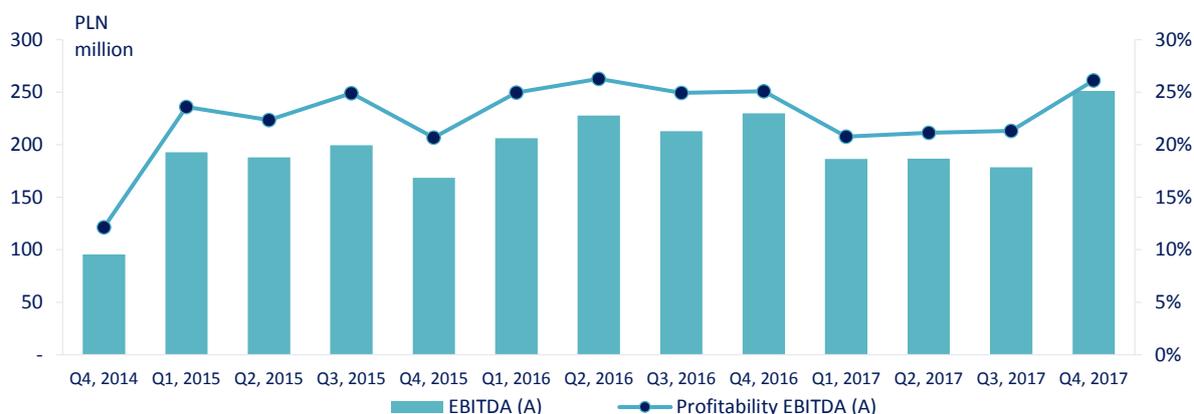
In 2017, profitability ratios of the CIECH Group in respect of the continuing operations were at a lower level than in 2016.

TABLE 19: THE CIECH GROUP'S PROFITABILITY RATIOS

	2017	2016	2015	Change 2017/2016
<b>CONTINUING OPERATIONS</b>				
Gross return on sales	25.6%	30.1%	26.4%	(4.5) p.p.
Return on sales	14.3%	18.8%	16.1%	(4.5) p.p.
EBIT margin	16.4%	19.1%	15.0%	(2.7) p.p.
EBITDA margin	23.3%	25.6%	21.6%	(2.3) p.p.
Adjusted EBIT margin	10.5%	14.0%	9.4%	(3.5) p.p.
Adjusted EBITDA margin	22.6%	25.4%	22.9%	(2.8) p.p.
Net return on sales (ROS)	11.0%	17.2%	10.6%	(6.2) p.p.
Return on assets (ROA)	8.5%	13.2%	8.8%	(4.7) p.p.
Return on equity (ROE)	18.0%	33.7%	25.8%	(15.7) p.p.
Earnings/(loss) per share (in PLN) from continuing operations	7.47	11.26	6.51	(3.79)

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

FIGURE 39: PROFITABILITY LEVELS OF THE CIECH GROUP



EBITDA (A) – adjusted EBITDA – excluding one-off events reported in particular quarters.

### Indebtedness

The debt ratio decreased in comparison to December 2016 and amounts to 53.0%. At the same time, the relative level of net debt (net financial liabilities in relation to EBITDA) improved as compared to the end of 2016. The ratio adjusted by one-off events is at a similar level in comparison to the previous year (net financial liabilities in relation to adjusted EBITDA).

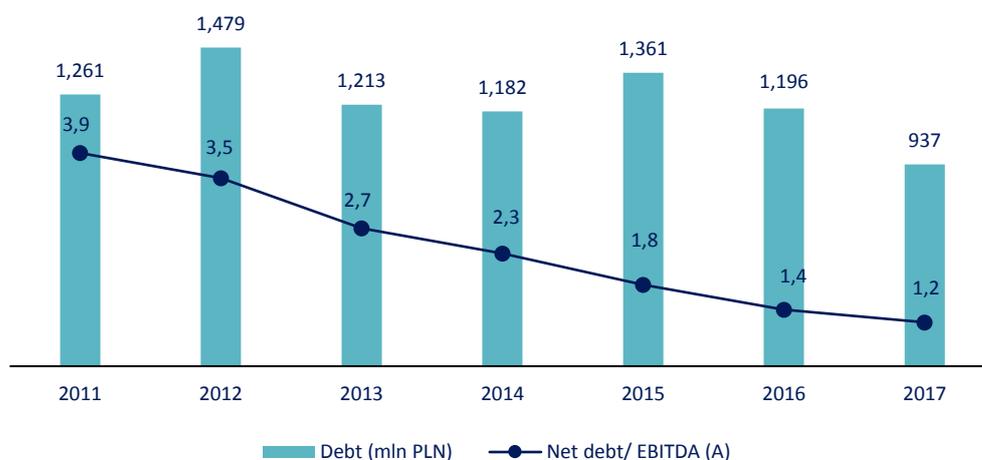
TABLE 20: CIECH GROUP'S DEBT RATIOS

	2017	2016	2015	Change 2017/2016
Debt ratio	53.0%	60.8%	66.0%	(7.8) p.p.
Long term debt ratio	29.5%	37.7%	46.7%	(8.2) p.p.
Debt to equity ratio	112.6%	155.3%	194.5%	(42.7) p.p.
Equity to assets ratio	47.0%	39.2%	34.0%	7.8 p.p.
Gross debt	1,426,428	1,610,867	1,564,247	(11.4%)
Net debt	936,674	1,196,498	1,361,312	(21.7%)
EBITDA annualized	833,196	883,794	707,538	(5.7%)
Adjusted EBITDA (annualised)	808,137	876,832	748,456	(7.8%)
Net debt / EBITDA annualized	1.1	1.4	1.9	(21.4%)
Net debt / Adjusted EBITDA (annualised)	1.2	1.4	1.8	(14.3%)
Gross debt / EBITDA annualised	1.7	1.8	2.2	(5.6%)
Gross debt / Adjusted EBITDA (annualised)	1.8	1.8	2.1	-

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

The CIECH Group is consistently reducing its net debt in relation to adjusted EBITDA. The strategic objective is to achieve the net debt to EBITDA ratio below 1 in 2019.

FIGURE 40: DEBT OF THE CIECH GROUP (IN PLN MILLION) AND NET DEBT/EBITDA (A) RATIO



#### 4.2.6 GROUP'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2017

 TABLE 21: CIECH GROUP'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2017

	01.10-31.12.2017*	01.10-31.12.2016*	01.10-31.12.2015*
<b>CONTINUING OPERATIONS</b>			
Sales revenues	961,743	907,802	814,171
Cost of sales	(680,549)	(626,987)	(600,600)
<b>Gross profit/(loss) on sales</b>	<b>281,194</b>	<b>280,815</b>	<b>213,571</b>
Other operating income	54,985	30,186	21,271
Selling costs	(73,984)	(61,664)	(50,214)
General and administrative expenses	(42,957)	(51,743)	(48,990)
Other operating expenses	(11,873)	(35,480)	(26,189)
<b>Operating profit/(loss)</b>	<b>207,365</b>	<b>162,114</b>	<b>109,449</b>
Financial income	7,127	14,465	705
Financial expenses	(31,478)	(20,384)	(123,723)
<b>Net financial income/(expenses)</b>	<b>(24,351)</b>	<b>(5,919)</b>	<b>(123,018)</b>
Share of profit / (loss) of equity-accounted investees	63	246	88
<b>Profit/(loss) before tax</b>	<b>183,077</b>	<b>156,441</b>	<b>(13,481)</b>
Income tax	(45,411)	17,808	101,371
<b>Net profit/(loss) on continuing operations</b>	<b>137,666</b>	<b>174,249</b>	<b>87,890</b>
<b>DISCONTINUED OPERATIONS</b>			
Net profit/(loss) on discontinued operations	-	-	-
<b>Net profit / (loss) for the year</b>	<b>137,666</b>	<b>174,249</b>	<b>87,890</b>
including:			
Net profit/(loss) attributable to shareholders of the parent company	137,466	174,014	87,729
Net profit/(loss) attributed to non-controlling interest	200	235	161
<b>Earnings per share (in PLN):</b>			
Basic	2.61	3.30	1.66
Diluted	2.61	3.30	1.66

\*Unaudited data

A strong performance in the fourth quarter of 2017 is a result of good performance in virtually all segments in particular: very successful pre-seasonal sales of crop protection products – higher volumes and prices; high sales volumes of soda ash; higher selling prices of soda ash in overseas markets.

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

During 2017, CIECH S.A. generated net profit from continuing operations of PLN 243,907 thousand, net cash increased by PLN 31,323 thousand and total assets as at the end of 2017 amounted to PLN 3,652,664 thousand.

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

CIECH S.A. did not publish any forecasts for 2017.

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

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

	2017	2016	2015	Change 2017/2016
<b>CONTINUING OPERATIONS</b>				
Sales revenues	2,365,764	2,193,357	2,038,491	7.9%
Cost of sales	(1,863,346)	(1,651,553)	(1,592,087)	(12.8%)
<b>Gross profit/(loss) on sales</b>	<b>502,418</b>	<b>541,804</b>	<b>446,404</b>	<b>(7.3%)</b>
Selling costs	(207,112)	(167,804)	(145,914)	(23.4%)
General and administrative expenses	(55,327)	(68,524)	(64,755)	19.3%
Other operating income/expense	2,234	(4,702)	79,490	-
<b>Operating profit/(loss)</b>	<b>242,213</b>	<b>300,774</b>	<b>315,225</b>	<b>(19.5%)</b>
Net financial income/expenses	59,258	(106,096)	(36,693)	-
Income tax	(57,564)	(42,237)	53,046	(36.3%)
<b>Net profit/(loss) on continuing operations</b>	<b>243,907</b>	<b>152,441</b>	<b>331,578</b>	<b>60.0%</b>
<b>DISCONTINUED OPERATIONS</b>				
Net profit/(loss) on discontinued operations	-	-	-	-
<b>Net profit / (loss)</b>	<b>243,907</b>	<b>152,441</b>	<b>331,578</b>	<b>60.0%</b>
EBITDA from continuing operations	247,426	305,422	319,132	(19.0%)
Adjusted EBITDA from continuing operations*	246,185	310,404	327,913	(20.7%)

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

#### Sales revenues

Net sales revenues net from continuing operations of CIECH S.A. for 2017 amounted to PLN 2,365,764 thousand. Compared to the previous year, revenues increased by PLN 172,407 thousand (i.e. by 7.9%). The changes were mainly due to market factors.

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

- increased sales of soda ash volume, despite growing supply from Turkish competitors,
- increase in sales prices on dollar markets in fourth quarter,
- development of specialist products in the area of sodium bicarbonate, increased sales prices,
- increased sales of raw materials for the production of plastics and crop protection chemicals.

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

- drop in prices of soda ash,
- decreased in volume and prices of salt sales,
- appreciation of PLN and RON against EUR and USD (partially offset by hedging).

TABLE 23: CIECH S.A.'S SALES BY BUSINESS SEGMENT

	2017	2016	2015	Change 2017/2016	Change %	% of total revenues in 2017
<b>Soda segment, including:</b>	<b>1,817,739</b>	<b>1,772,601</b>	<b>1,595,087</b>	<b>45,138</b>	<b>2.5%</b>	<b>76.8%</b>
Dense soda ash	1,053,263	1,061,175	922,851	(7,912)	(0.7%)	44.5%
Light soda ash	445,528	387,534	374,043	57,994	15.0%	18.8%
Salt	169,968	180,185	169,337	(10,217)	(5.7%)	7.2%
Sodium bicarbonate	94,998	98,829	90,048	(3,831)	(3.9%)	4.0%
Calcium chloride	19,829	15,144	12,388	4,685	30.9%	0.8%
Other goods and services	34,153	29,734	26,420	4,419	14.9%	1.5%
<b>Organic segment, including:</b>	<b>505,095</b>	<b>392,897</b>	<b>429,057</b>	<b>112,198</b>	<b>28.6%</b>	<b>21.4%</b>
Raw materials for production of plant protection products	117,596	70,345	72,381	47,251	67.2%	5.0%
Raw materials for production of plastics	235,199	198,899	234,911	36,300	18.3%	9.9%
Raw materials for the production of polyurethane foams	142,961	115,513	113,757	27,448	23.8%	6.0%
Other goods and services	9,339	8,140	8,008	1,199	14.7%	0.5%
<b>Silicates and Glass segment, including:</b>	<b>15,108</b>	<b>15,192</b>	<b>11,501</b>	<b>(84)</b>	<b>(0.6%)</b>	<b>0.6%</b>
Sodium silicates	13,868	14,103	10,768	(235)	(1.7%)	0.5%
Other goods and services	1,240	1,089	733	151	13.9%	0.1%
<b>Transport segment</b>	<b>25,128</b>	<b>9,169</b>	<b>575</b>	<b>15,959</b>	<b>174.1%</b>	<b>1.1%</b>
Transport services	25,128	9,169	575	15,959	174.1%	1.1%
<b>Other segment, including:</b>	<b>2,694</b>	<b>3,498</b>	<b>2,271</b>	<b>(804)</b>	<b>(23.0%)</b>	<b>0.1%</b>
Revenues from third parties	2,694	3,498	2,271	(804)	(23.0%)	0.1%
<b>TOTAL</b>	<b>2,365,764</b>	<b>2,193,357</b>	<b>2,038,491</b>	<b>172,407</b>	<b>7.9%</b>	<b>100.0%</b>

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

Sales in the soda segment for the year ended 31 December 2017 amounted to PLN 1,817,739 thousand, which is an increase by PLN 45,138 thousand, compared to sales for the year ended 31 December 2016 which amounted to PL 1,772,601 thousand. This increase was driven primarily by a higher volume of soda sales.

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

Sales in the organic segment for the year ended 31 December 2017 amounted to PLN 505,095 thousand, which is an increase by PLN 112,198 thousand, compared to sales for the year ended 31 December 2016 which amounted to PLN 392,897 thousand. The increase resulted from higher sales of raw materials for the production of plastics and crop protection chemicals.

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

Sales in the silicates and glass segment for the year ended 31 December 2017 amounted to PLN 15,108 thousand, which means that the last year's level of PLN 15,192 thousand was maintained.

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

Sales in the transport segment for the year ended 31 December 2017 amounted to PLN 25,128 thousand, which is an increase from the previous year's sales of PLN 9,169 thousand. This increase was driven by an increase services provided to the Group companies.

#### Cost of sales

Cost of goods sold for the year ended 31 December 2017 amounted to PLN 1,863,346 thousand, which is an increase by PLN 211,793 thousand (or 12.8%) compared to PLN 1,651,553 thousand in the cost of goods sold in 2016. The increase stemmed

from higher sales volumes of soda, higher purchase prices of soda from the Group and higher prices of raw materials for the organic segment.

### Gross profit on sales

TABLE 24: CIECH S.A.'S GROSS PROFIT ON SALES BY BUSINESS SEGMENT

	2017	2016	2015	Change 2017/2016
Soda segment	485,937	530,741	436,676	(8.4%)
Organic segment	14,224	9,178	8,834	55.0%
Silicates and glass segment	1,329	1,108	582	19.9%
Transport segment	527	235	27	124.3%
Other	401	542	285	(26.0%)
<b>Gross profit /(loss) on sales</b>	<b>502,418</b>	<b>541,804</b>	<b>446,404</b>	<b>(7.3%)</b>

#### Soda segment

The gross profit on sales in the soda segment for the year ended 31 December 2017 amounted to PLN 485,937 thousand compared to PLN 530,741 thousand for the year ended 31 December 2016. The decrease was mainly caused by higher prices of soda purchased from the Group companies as a result of increasing production costs (mainly driven by higher prices of power and furnace fuel).

#### Organic segment

The gross profit on sales in the organic segment for the year ended 31 December 2017 amounted to PLN 14,224 thousand compared to PLN 9,178 thousand for the year ended 31 December 2016. The increase is caused by the increase in volumes and the increase in prices of raw material purchases for CIECH Sarzyna S.A. and CIECH Pianki Sp. z o.o.

#### Silicates and Glass segment

The gross profit on sales in the silicates and glass segment for the year ended 31 December 2017 amounted to PLN 1,329 thousand compared to PLN 1,108 thousand for the year ended 31 December 2016.

### Operating profit

Other operating income for 2017 amounted to PLN 4,461 thousand which represents an increase by PLN 1,074 thousand compared to the amount of PLN 3,387 thousand for 2016. The increase in other operating income was attributable mainly to the release of provisions.

Selling costs for 2017 amounted to PLN 207,112 thousand which represents an increase by PLN 39,308 thousand (i.e. by 23.4%), compared to PLN 167,804 thousand in 2016. This increase resulted mainly from higher transport costs due to higher sales volume, increased share of carriage management and increased transport rates in some markets.

General and administrative expenses for 2017 amounted to PLN 55,327 thousand which is a decrease by PLN 13,197 thousand (i.e. by 19.3%) as compared to PLN 68,524 thousand in 2016. The decrease in general and administrative expenses resulted mainly from, among other factors, lower expenditures on strategic projects implemented by the Group and lower costs of employee benefits.

Other operating expenses for 2017 amounted to PLN 2,227 thousand which is a decrease by PLN 5,862 thousand from PLN 8,089 thousand in 2016.

Operating profit for 2017 reached PLN 242,213 thousand, while in the comparable period it amounted to PLN 300,774 thousand.

### Financing activities and net profit/loss

Financial income for 2017 amounted to PLN 342,793 thousand and recorded an increase from the previous year, when it amounted to PLN 190,327 thousand. Financial expenses for 2017 amounted to PLN 283,535 thousand and recorded a slight decline as compared to the preceding year, when they amounted to PLN 296,423 thousand.

The contributors in the area of financing activities included write-downs on CIECH S.A.'s interests in subsidiaries, valuation of derivatives and dividend received from subsidiaries.

The Company's separate net profit for 2017 amounted to PLN 243,907 thousand. The net result for 2017 amounted to PLN 243,907 thousand and was higher by PLN 91,466 thousand compared to the 2016 net result. This was mainly due to lower operating results and a higher level of income tax. The improved result on financial activities had a positive impact on the net result.

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

TABLE 25: CIECH S.A.'S EBITDA IN 2017

	2017	2016	2015	Change 2017/2016
Net profit/(loss) on continuing operations	243,907	152,441	331,578	60.0%
Income tax	57,564	42,237	(53,046)	36.3%
Financial expenses	283,535	296,423	346,437	(3.3%)
Financial income	(342,793)	(190,327)	(309,744)	(81.8%)
Amortisation/depreciation	5,213	4,648	3,907	12.2%
<b>EBITDA from continuing operations</b>	<b>247,426</b>	<b>305,422</b>	<b>319,132</b>	<b>(19.0%)</b>

EBITDA from continuing operations in the year ended 31 December 2017 amounted to PLN 247,426 thousand, which represents a decrease by PLN 57,996 thousand, compared to PLN 305,422 thousand for the year ended 31 December 2016. The decrease in EBITDA was mainly caused by higher prices of soda purchased from the Group companies as a result of increasing production costs (mainly driven by higher prices of power and furnace fuel) and higher selling costs.

### Adjusted EBITDA<sup>4</sup>

TABLE 26: ADJUSTED EBITDA OF CIECH S.A.

	2017	2016	2015
<b>EBITDA on continued operations</b>	<b>247,426</b>	<b>305,422</b>	<b>319,132</b>
One-offs including:	(1,241)	4,982	8,781
Cash items (a)	(84)	547	(1,837)
Non-cash items (without impairment) (b)	(1,157)	4,435	10,618
<b>Adjusted EBITDA from continuing operations</b>	<b>246,185</b>	<b>310,404</b>	<b>327,913</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 and depreciation. 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>Adjusted EBITDA is another additional ratio of operating performance. Adjusted EBITDA is EBITDA adjusted for costs/revenues that were classified by the management as one-off due to their nature. We believe that adjusted EBITDA is an important ratio when estimating and measuring the Company's recurring business performance. Other companies may calculate adjusted EBITDA in a manner different from the manner applied by CIECH S.A. Adjusted 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.

	2017	2016	2015	Change 2017/2016	Change 2017/2016
<b>Total assets</b>	<b>3,652,664</b>	<b>3,599,972</b>	<b>3,268,739</b>	<b>1.5%</b>	<b>52,692</b>
Total non-current assets	1,952,407	2,593,182	2,526,919	(24.7%)	(640,775)
Total current assets	1,700,257	1,006,790	741,820	68.9%	693,467
Inventory	31,795	37,450	19,673	(15.1%)	(5,655)
Current receivables	280,765	394,711	331,991	(28.9%)	(113,946)
Cash and cash equivalents	375,393	342,607	174,745	9.6%	32,786
Short-term financial assets	1,012,304	232,022	215,411	336.3%	780,282
<b>Total equity</b>	<b>1,549,028</b>	<b>1,296,766</b>	<b>1,297,223</b>	<b>19.5%</b>	<b>252,262</b>
Equity attributable to shareholders of the parent	1,549,028	1,296,766	1,297,223	19.5%	252,262
Total non-current liabilities	1,172,446	1,467,349	1,578,807	(20.1%)	(294,903)
Total current liabilities	931,190	835,857	392,709	11.4%	95,333

#### Assets

As at the end of 2017, the CIECH S.A.'s non-current assets amounted to PLN 1,952,407 thousand. As compared to the balance as at 31 December 2016, the value of non-current assets decreased by PLN 640,775 thousand. This change is related primarily to a decrease 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 1,700,257 thousand as at 31 December 2017. Compared to the end of December 2016, the value of current assets increased by PLN 693,467 thousand. This increase resulted 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 2017, liabilities (non-current and current) of CIECH S.A. amounted to PLN 2,103,636 thousand, which is a decrease compared to the end of December 2016 by PLN 199,570 thousand.

The debt ratio amounted to 57.6% as at 31 December 2017 (at the end of December 2016 to 64.0%). CIECH S.A.'s standalone net debt amounted to PLN 1,110,621 thousand as at 31 December 2017 and decreased from the end of December 2016 by PLN 179,845 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

CIECH S.A.'s sources of debt financing include, among others, a term loan and revolving credit.

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

TABLE 28: CIECH S.A.'S CASH FLOWS

	2017	2016	2015	Change 2017/2016
Net cash from operating activities	300,288	344,602	56,987	(12.9%)
Net cash from investment activities	(131,486)	(86,973)	(186,185)	(51.2%)
Net cash from financial activities	(137,479)	(87,457)	293,785	(57.2%)
<b>Total net cash flows</b>	<b>31,323</b>	<b>170,172</b>	<b>164,587</b>	<b>(81.6%)</b>
free cash flows	168,802	257,629	(129,198)	(34.5%)

In 2017, total net cash flows were positive and amounted to PLN 31,323 thousand. Compared to the same period of the previous year, the cash flows generated by CIECH S.A. were lower by PLN 138,849 thousand. The cash flows from operating activities amounted to PLN 300,288 thousand and decreased by PLN 44,314 thousand as compared to the same period in 2016.

In 2017, the net cash flows from investing activities were negative. Investment outflows were higher than investment inflows by PLN 131,486 thousand. The excess of loans granted over total repayments of these loans and expenses on increasing the share capital in subsidiaries had the main impact on net cash flows from investing activities. The amount of cash flows from loans granted/repaid was partially offset by dividends received in the amount of PLN 127,874 thousand.

Net cash from financing activities was negative and amounted to PLN 137,479 thousand. As compared to the corresponding period of 2016, they were lower by PLN 50,022 thousand and resulted primarily from the repayment of PLN-denominated bonds in the amount of PLN 160,000.

#### Ability to generate cash flows

In 2017, 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: CIECH S.A.'S ABILITY TO GENERATE CASH FLOWS

	2017	2016	2015
Financial surplus ((net profit/(loss) on continuing operations + depreciation)	249,120	157,089	335,484
Other adjustments to net profit/(loss) on continuing operations	(57,538)	105,228	(161,140)
<b>Adjusted financial surplus (1+2)</b>	<b>191,582</b>	<b>262,317</b>	<b>174,344</b>
Change in working capital	108,706	82,285	(117,357)
<b>Net cash from operating activities (3+4)</b>	<b>300,288</b>	<b>344,602</b>	<b>56,987</b>
Net cash from investing activities	(131,486)	(86,973)	(186,185)
<b>Free cash flow (5+6)</b>	<b>168,802</b>	<b>257,629</b>	<b>(129,198)</b>

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

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

In 2017, profitability ratios of CIECH S.A. in respect of continuing operations, below the level of profit on sales, were at a lower level than in 2016.

TABLE 30: CIECH S.A.'S PROFITABILITY RATIOS

	2017	2016	2015	Change 2017/2016
<b>CONTINUING OPERATIONS</b>				
Gross return on sales	21.2%	24.7%	21.9%	(3.5) p.p.
Return on sales	10.1%	13.9%	11.6%	(3.8) p.p.
EBIT margin	10.2%	13.7%	15.5%	(3.5) p.p.
EBITDA margin	10.5%	13.9%	15.7%	(3.4) p.p.
Adjusted EBIT margin	10.2%	13.9%	6.6%	(3.7) p.p.
Adjusted EBITDA margin	10.4%	14.2%	16.1%	(3.8) p.p.
Net return on sales (ROS)	10.3%	7.0%	16.3%	3,3 p.p.
Return on assets (ROA)	6.7%	4.2%	10.1%	2,5 p.p.
Return on equity (ROE)	15.7%	11.8%	25.6%	3,9 p.p.
Earnings/(loss) per share (in PLN) from continuing operations	4.63	2.89	6.29	1.74

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

### CIECH S.A.'s liquidity and working capital

Liquidity ratios as at 31 December 2017 increased as compared to their level as at 31 December 2016. The current ratio, calculated as the ratio of total current assets to total current liabilities, amounted to 1.83 as at 31 December 2016, while the quick liquidity ratio amounted to 1.79.

TABLE 31: CIECH S.A.'S LIQUIDITY RATIOS

	31.12.2017	31.12.2016	31.12.2015
Current ratio	1.83	1.20	1.89
Quick ratio	1.79	1.16	1.84

### CIECH S.A.'s working capital

As at the end of 2017, 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 186,669 thousand, which is a decrease by PLN 152,269 thousand compared to the end of 2016.

TABLE 32: CIECH S.A.'S WORKING CAPITAL

	31.12.2017	31.12.2016	31.12.2015
1. Current assets, including:	1,700,257	1,006,790	741,820
Inventory	31,795	37,450	19,673
Trade receivables and services and advances for deliveries	217,339	314,853	276,117
2. Cash and cash equivalents and short-term investments	1,387,697	574,629	390,156
<b>3. Adjusted current assets (1-2)</b>	<b>312,560</b>	<b>432,161</b>	<b>351,664</b>
4. Current liabilities, including:	931,190	835,857	392,709
Trade liabilities and advances taken	398,885	385,404	201,393
5. Short-term credits and other current financial liabilities*	431,961	369,296	126,592
<b>6. Adjusted current liabilities (4-5)</b>	<b>499,229</b>	<b>466,561</b>	<b>266,117</b>
<b>7. Working capital including short-term credits(1-4)</b>	<b>769,067</b>	<b>170,933</b>	<b>349,111</b>
<b>8. Working capital (3-6)</b>	<b>(186,669)</b>	<b>(34,400)</b>	<b>85,547</b>

\* Other current financial liabilities include current derivative liabilities + factoring liabilities + cash pooling 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 2017, the debt ratio decreased in comparison to December 2016 and amounts to 57.6%.

TABLE 33: CIECH S.A.'S DEBT RATIOS

	2017	2016	2015	Change 2017/2016
Debt ratio	57.6%	64.0%	60.3%	(6.4) p.p.
Long term debt ratio	32.1%	40.8%	48.3%	(8.8) p.p.
Debt to equity ratio	135.8%	177.6%	152.0%	(41.8) p.p.
Equity to assets ratio	42.4%	36.0%	39.7%	8,0 p.p.

### 4.3.5 CIECH S.A.'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2017

 TABLE 34: CIECH S.A.'S PERFORMANCE IN THE 4<sup>TH</sup> QUARTER OF 2017

	01.10.-31.12.2017*	01.10.-31.12.2016*	01.10.-31.12.2015*
<b>CONTINUING OPERATIONS</b>			
Sales revenues	602,562	577,614	515,017
Cost of sales	(460,970)	(441,604)	(388,485)
<b>Gross profit/(loss) on sales</b>	<b>141,592</b>	<b>136,010</b>	<b>126,532</b>
Other operating income	1,801	1,196	675
Selling costs	(58,450)	(45,304)	(38,473)
General and administrative expenses	(17,415)	(23,888)	(27,545)
Other operating expenses	(1,160)	(4,828)	(1,273)
<b>Operating profit/(loss)</b>	<b>66,368</b>	<b>63,186</b>	<b>59,916</b>
Financial income	236,519	(4,816)	85,180
Financial expenses	(214,602)	(213,298)	(189,774)
<b>Net financial income/(expenses)</b>	<b>21,917</b>	<b>(218,114)</b>	<b>(104,594)</b>
<b>Profit/(loss) before tax</b>	<b>88,285</b>	<b>(154,928)</b>	<b>(44,678)</b>
Income tax	(19,954)	(7,903)	28,201
<b>Net profit/(loss) on continuing operations</b>	<b>68,331</b>	<b>(162,831)</b>	<b>(16,477)</b>
<b>DISCONTINUED OPERATIONS</b>	-	-	-
Net profit/(loss) on discontinued operations	-	-	-
<b>Net profit / (loss)</b>	<b>68,331</b>	<b>(162,831)</b>	<b>(16,477)</b>
including:			
Net profit/(loss) attributable to shareholders of the parent company	68,331	(162,831)	(16,477)
Net profit/(loss) attributed to non-controlling interest	-	-	-
<b>Earnings per share (in PLN):</b>			
Basic	1.30	(3.09)	(0.31)
Diluted	1.30	(3.09)	(0.31)

\*Unaudited data

The performance in the fourth quarter of 2017 was driven primarily dividends and changes in write-downs on CIECH S.A.'s interests in subsidiaries.

## 4.4 INVESTING ACTIVITIES OF THE CIECH GROUP

### Investments implemented in 2017

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 2017 amounted to approx. PLN 411 million. Major capital expenditures were spent on several large-scale projects, including the extension and modernisation of plants in the soda segment, increase in the salt product range, construction of a high-storage warehouse for salt and a warehouse for long foam blocks. Furthermore, in 2017 CIECH Soda Polska S.A. continued the implementation of large projects relating to development of flue gas desulphurisation and denitrification systems in Polish CHP plants. In 2017, the Group also incurred significant expenditures on R&D activities, where activities were mainly focused on the registration of new active substances, new products in the organic segment (mainly crop protection products, but also resins and foams), as well as on the search for new applications for currently manufactured products. 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. An example

of such a comprehensive approach to development projects can be the Feasibility Study of constructing new production capacities for salt, prepared in 2017, which takes into account both market analyses and growth opportunities for the salt business, as well as technological considerations.

Key projects implemented in 2017 are presented below:

TABLE 35: KEY INVESTMENT PROJECTS OF THE CIECH GROUP IMPLEMENTED IN 2017

	Investment project	Implementation status
	<p><b>Development investments in the Soda segment – CIECH Soda Deutschland</b></p> <p>The Stassfurt plant is implementing a two-stage project to build a facility for the production of a highly specialised product, i.e. soda for dialysis. In 2017, key tender procedures were completed, technological and construction designs were prepared and a number of administrative decisions were obtained. Construction will start in 2018 and full capacity will be reached in the half-year of 2019.</p>	Project in implementation.
	<p><b>Salt – increase of product range</b></p> <p>As part of continued development of the salt business in 2017, further investment projects were started which will result in the introduction of new, high-margin products (granulate, licks) and improvement of product packaging methods in line with the needs of the market.</p>	Project in implementation.
	<p><b>Salt – increase of production capacity</b></p> <p>In 2017, a number of market and technological analyses were carried out in order to determine the future direction of development of the salt business. Based on the data collected, it was decided to start the preparatory phase for the construction of a new salt plant in Stassfurt with a capacity of 450 thousand tonnes.</p>	Project in implementation (preparatory Phase).
	<p><b>Salt – high-storage warehouse</b></p> <p>The construction of a new high-storage warehouse at CIECH Soda Polska S.A.'s plant in Janikowo was completed. The warehouse will be used to store finished dry salt products (table salt, industrial salt, feed salt and salt tablets).</p>	
	<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 Inowrocław 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 Inowrocław</li> <li>• Construction of flue gas denitrification plant – CHP Janikowo</li> <li>• Construction of flue gas desulphurisation plant – CHP Inowrocław</li> </ul> <p>Construction of flue gas desulphurisation plant – CHP Janikowo.</p>	Project in implementation.
	<p><b>R&amp;D projects</b></p> <p>In 2017, the Group also incurred significant expenditures on R&amp;D activities:</p> <ul style="list-style-type: none"> <li>• registrations of new active substances,</li> <li>• registration of new products in the organic segment (mainly crop protection products, but also resins and foams),</li> <li>• search for new applications for currently manufactured products.</li> </ul>	
	<p><b>Construction of a warehouse for long PUR foam blocks</b></p> <p>In 2017, CIECH Pianki Sp. z o. o. completed the construction of the warehouse for long blocks. This project will allow for increasing production capacity, extending the product portfolio and improving the efficiency of production and logistics processes.</p>	Project completed.

	Investment project	Implementation status
	<b>Furnace for sodium silicate production</b> This project included the replacement of a worn out glass furnace with a new furnace with more two times higher efficiency. 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. In 2017, optimisation of process parameters was carried out.	Project completed.
	<b>Energy Project Package</b> In 2017, the implementation of multi-annual investment programme in the energy area, was commenced. Replacement and modernisation projects implemented under the programme will contribute to increasing the efficiency and reliability of energy generation sources, which will have a positive impact on the annual output, especially in the Inowrocław and Janikowo plants.	Project in implementation.

### Capital expenditures planned for the upcoming 12 months

As part of the investment expenditure plan for 2018, the CIECH Group assumes further implementation of the aforementioned projects and execution of new development projects that are currently in the preparatory phase. The construction of a dialysis soda plant in Stassfurt is one of the most important projects. Further preparatory work related to the construction of a new salt plant will be carried out in Germany. Projects concerning desulphurisation and de-nitrogenation facilities will be finalised and energy modernisation programmes will be continued in CIECH Soda Polska S.A.'s energy plants. The CIECH Group will also continue a number of R&D activities aimed at increasing plant efficiency and implementing modern products responding to the growing needs of the market (in particular, increasing the efficiency of soda ash production and improving efficiency through the reuse of waste streams in the production process, as well as work on the extension and optimisation of the agro product portfolio). Drawing on the successfully completed projects, plans for 2018 include the reconstruction of one of the division of the production of glassy sodium silicate in CIECH Vitrosilicon S.A. and construction of a second long block warehouse in CIECH Pianki Sp. z o.o. Moreover, the investment plan of the Group for 2018-2022 includes the implementation of modernisation and replacement investments needed to maintain the current production infrastructure. The CIECH Group has also 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,
- external sources of funding in the form of European Union funds.

## 4.5 STATE AID USED

In 2017, the CIECH Group consistently pursued its strategy of strengthening its market position and developing its product portfolio that ensures high profitability. The Group's value growth is possible, among other things, owing to continuous investments in innovative solutions and technologies.

Research and development which enables the Group to offer innovative products is an important tool for successful competition on the market. It is the implementation of research and development projects that allows the Group to continuously expand its product portfolio and respond to emerging market trends. The CIECH Group companies, which are beneficiaries of EU Funds, received in 2017 an amount of approximately PLN 1.4 million for the implementation of R&D projects on the basis of agreements concluded in 2016.

Further development of products in the area of crop protection chemicals and resins will be based on own research carried out in a modern research and development centre in Nowa Sarzyna. The investment is co-financed with funds from the Operational Programme Smart Growth. Under the co-financing agreement signed in 2017, CIECH R&D Sp. z o.o. will receive over PLN 8 million of aid for the implementation of the project: "Establishment of a Research and Development Center of Ciech R&D Sp. z o.o."

Also investment projects in the production area are implemented with the participation of funds from public sources. The CIECH Group uses both financial support and income tax exemptions. CIECH Soda Deutschland GmbH & Co.KG, operating in Stassfurt (Germany), has received a decision on granting a co-financing in the amount of approximately PLN 46.9 million (EUR 11.25 million) for an investment project aimed at the construction of a new evaporated salt production plant. In turn, CIECH Soda Polska S.A. benefits from the exemption from corporate income tax due to conducting business activities in the Pomeranian Special Economic Zone. The amount of CIT [corporate income tax] unpaid in 2017 was PLN 3.6 million.

## 4.6 FINANCIAL RESOURCE MANAGEMENT

### 4.6.1 EXTERNAL DEBT FINANCING OF THE GROUP

#### Debt financing of the Group

The Group's debt financing is secured mainly through loans made available to CIECH S.A. under the Loans Agreement dated 29 October 2015:

- o 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 2017 was PLN 1,335,630 thousand),
- o 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 2017 was PLN 0).

#### 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 Warszawie 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 resulting 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"). As at 31 December 2017, the amount drawn under the facility was PLN 0.0.

#### Interest rate:

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%.

#### 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 pay-out 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.

As at 31 December 2017, loans granted pursuant the Loans Agreement are secured 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.

Pursuant to the terms of the Loans Agreement, after the repayment of domestic bonds which took place on 5 December 2017, the Company had the right to apply to creditors for partial release of the collateral. The Company applied for the release on 12 December 2017 and the deed of release of collateral was signed on 9 January 2018.

#### 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.

Pursuant to the terms of the Intercreditor Agreement, after the repayment of domestic bonds which took place on 5 December 2017, CIECH S.A. signed an annexe to this agreement on 9 January 2018.

## 4.6.2 INTRAGROUP LOANS GRANTED

TABLE 36: SUMMARY OF LOANS GRANTED BY CIECH S.A. TO SUBSIDIARIES IN 2017

Borrower	Repayment date	The amount of loan granted and paid in PLN thousand as at 31 December 2017 (gross amount)		Conditions of granting
		in the currency in thousands	in PLN thousand	
		CSD GmbH & CO KG	2018-12-29	
Ciech Trading S.A.	2018-12-31	20,000 PLN	20,000	interest of WIBOR 6M + 2.4% margin
CIECH Soda Polska S.A.	2018-12-31	100,000 PLN	100,000	interest of WIBOR 6M + 2.4% margin
CIECH Sarzyna S.A.	2018-12-31	65,000 PLN	65,000	interest of WIBOR 6M + 2.4% margin
CIECH Pianki Sp. z o.o.	2018-12-31	18,000 PLN	18,000	interest of WIBOR 6M + 2.4% margin

TABLE 37: SUMMARY OF LOANS CONCLUDED BETWEEN SUBSIDIARIES IN THE CIECH GROUP IN 2017

Lender	Borrower	Repayment date	The amount of loan granted and paid in PLN thousand as at 31 December 2017 (gross amount)		Conditions of granting
			in the currency in thousands	in PLN thousand	
			Gamma Finanse Sp. z o.o.	CIECH S.A.	
Gamma Finanse Sp. z o.o.	CIECH S.A.	2018-12-31	15,000 PLN	15,000	interest of WIBOR 6M + 2.4% margin
Algete Sp. z o.o.	CIECH Sarzyna S.A.	2018-12-31	4,000 PLN	4,000	interest of WIBOR 6M + 2.4% margin

Sureties and guarantees granted as at 31 December 2017 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 2017, 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 2017, 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 OF THE CIECH GROUP

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

TABLE 38: CONTINGENT ASSETS AND LIABILITIES OF THE CIECH GROUP

	31.12.2017	31.12.2016
<b>Contingent assets</b>	<b>23,527</b>	<b>18,864</b>
Other contingent receivables*	23,527	18,864
<b>Contingent liabilities</b>	<b>568,733</b>	<b>698,180</b>
Guarantees and sureties granted**	396,408	533,056
Other***	172,325	165,124

\*Including:

- *\*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.*
- *CIECH Soda Polska S.A. recognised a contingent asset in the amount of PLN 4,663 thousand – it is the value of energy efficiency certificates received from the President of the Energy Regulatory Office in 2017 that have not been recorded yet in the account kept by the Polish Power Exchange.*

\*\* Including:

- *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 72,650 thousand.*

\*\*\* Including mainly:

- *contingent liability in the SDC Group relating to environmental protection in the amount of PLN 15,190 thousand (EUR 3,642 thousand),*
- *contingent liability in CIECH Soda Polska S.A. regarding environmental penalty fees in the amount of PLN 36,474 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,*
- *contingent liabilities in CIECH Sarzyna S.A. resulting from promissory notes: relating to grants received for the construction of an innovative MCPA and MCPP-P substance production installation in the amount of PLN 39,997 thousand; relating to a grant received for developing and testing a group of agro-chemical preparations in the amount of PLN 14,645 thousand,*
- *contingent liabilities in CIECH R&D Sp. z o.o. resulting from promissory notes relating to grants received for investment projects aimed at developing and optimising production processes in the amount of PLN 19,070 thousand.*



As at 31 December 2017, contingent liabilities amounted to PLN 568,733 thousand and decreased as compared to 31 December 2016 by PLN 129,447 thousand. The change results primarily from the expiry of guarantees related to the issued domestic bonds (redeemed on 6 December 2017) in the amount of PLN 88,000 thousand, and expiry on 12 March 2017 of a guarantee in the amount of PLN 44,240 thousand (EUR 10,000 thousand) for certain obligations and warranties made by Infrastruktura Kapuściska S.A. in liquidation, as a part of the agreement for sale and transfer of TDI assets on BASF. The remaining decrease in liabilities resulted mainly from foreign exchange gains and expiration of employee claims.

Information on contingent assets and liabilities of CIECH S.A. is presented in Note 9.2 to the Separate Financial Statements of CIECH S.A. for 2017.

TABLE 39: SURETIES AND GUARANTEES GRANTED AS AT 31 DECEMBER 2017

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>				
Landesamt fuer Geologie und Bergwesen Sachsen-Anhalt	EUR 3,933 thousand	16,405 thousand	Commission of 1.5% p.a. of the guaranteed liability; collateral pertaining to liability; no time limit	CIECH Soda Deutschland (subsidiary)
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	6,256 thousand	Commission of 1.5% p.a. of the guaranteed liability; collateral pertaining to liability. Liabilities incurred and outstanding by 31.12.2018	CIECH Trading S.A. (subsidiary)
Siemens Industrial Turbo- machinery s.r.o	EUR 1,753 thousand	7,312 thousand	Commission of 0.4% p.a. of the guaranteed liability, lease instalments outstanding by 30.04.2019	CIECH Energy Deutschland 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 115,008 thousand</b>	
<b>Selected subsidiaries in Poland, Germany and Romania</b>				
Banks:	PLN 1,618,789 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)		1,982,039 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
Bank Handlowy w Warszawie S.A., Bank Millennium S.A., BZWBK S.A., Bank PKO BP S.A., Credit Agricole 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 1,982,039 thousand</b>	

In 2017, the CIECH Group companies did not receive any guarantees from third parties.

### Letters of support

As at 31 December 2017, 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 39.5 million from RWE by 31 December 2017. 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

In 2017, five Polish companies from the CIECH Group were subject to tax inspections and one was subjected to control proceedings in parallel. The aim of the audits was to review the accuracy of the declared tax base and the correctness of calculations and payments of corporate income tax for the year 2015 (four companies) or 2013 (one company). All the audited companies received the Audit reports and one of them received the an Assessment decision. The irregularities identified concern mainly the incorrect settlement of income from a participation in a partnership (this resulted in the reduction of the tax loss by PLN 313 million).

All Companies have submitted objections to the audit reports or their parts. In response to the objections submitted, the auditors maintained their position on key issues (of significant value), while acknowledging the Companies' position or their additional explanations on other issues. Further control proceedings were initiated in three companies. One of the companies, in which tax inspection was carried out in parallel with the control proceedings, received an Assessment decision from which it filed an appeal.

The Management Boards of the companies and their tax advisors do not agree with the findings presented in the audit reports and with responses to objections to the reports or the decision issued. However, if decisions are taken in which the findings contained in the responses to objections to the Report are included and the decision of the Head of the Tax Administration Chamber is upheld, each of the companies may be required to pay tax liabilities in the total amount of PLN 15.1 million for 2015 together with default interest from 1 April 2016, and in the amount of PLN 1.8 million for 2013 (taking account of the tax loss incurred in the audited year) together with default interest from 1 April 2014.

As at the date of the report, control proceedings are pending in four companies and as regards the fifth company, tax proceedings has not started. Three companies have not received Assessment decision by the date of the financial statements, in one case Head of the Tax Administration Chamber's decision.

In 2017, one of the Group's companies was also subject to follow-up activities resulting from CIT inspections for 2010 in the form of a hearing before the Regional Administrative Court in Warsaw. The Regional Administrative Court fully agreed with the Company's position. The Company received a written justification for the judgment after the balance sheet date. By the date of the financial statements, there is no information whether the Head of the Tax Administration Chamber in Warsaw appealed to the Supreme Administrative Court.

After the balance sheet date, a tax audit in the area of corporate income tax for 2016 was also started in one of the Group's companies. The audit is underway as at the date of the report.

The Group estimated that the potential impact on the income tax charge (in the form of additional tax liabilities or the inability to realize an asset for deferred income tax calculated on tax losses), in connection with the above-described issues would amount to PLN 92.1 million if it was no longer probable that the Group will be able to uphold its tax interpretations adopted by the tax authorities.

In addition, as a result of the ongoing audit of the German CIECH Group companies for the years 2007-2009 and 2010-2015, in case of a different assessment by the auditing authorities of economic events, an obligation may arise to recalculate and potentially increase the tax liability and to pay interest on tax arrears. At the time of publication of the financial statements, the audit result is not known.

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

CIECH Group's companies, to the best of their knowledge and belief, did not conclude significant transactions on the terms other than market ones. Sales to and purchases from related entities are realised at market prices that reflect market conditions.



Description of transactions concluded between related entities is provided in note 9.3 to the Consolidated Financial Statements of the CIECH Group for 2017 and in note 9.3 to the Financial Statements of CIECH S.A. for 2017.

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

Information about contracts concluded with the entity authorised to audit the consolidated financial statement is presented in note 9.4 to the Consolidated Financial Statements of the CIECH Group for 2017 and in note 9.4 to the Financial Statements of CIECH S.A. for 2017.



**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 and Romania.

<b>Parent company</b>	<b>CIECH Spółka Akcyjna</b>
Registered office	00-684 Warsaw, Wspólna Street 62
KRS (National Court Register number)	0000011687 (District Court for the Capital City of Warsaw in Warsaw, 12 <sup>th</sup> Commercial Division of the National Court Register)
Website	www.ciechgroup.com
IR Contact	ri@ciechgroup.com

As at 31 December 2017, the CIECH Group comprised 38 business entities, including:

- parent company,
- 32 subsidiaries, of which:
  - 24 domestic subsidiaries,
  - 8 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.

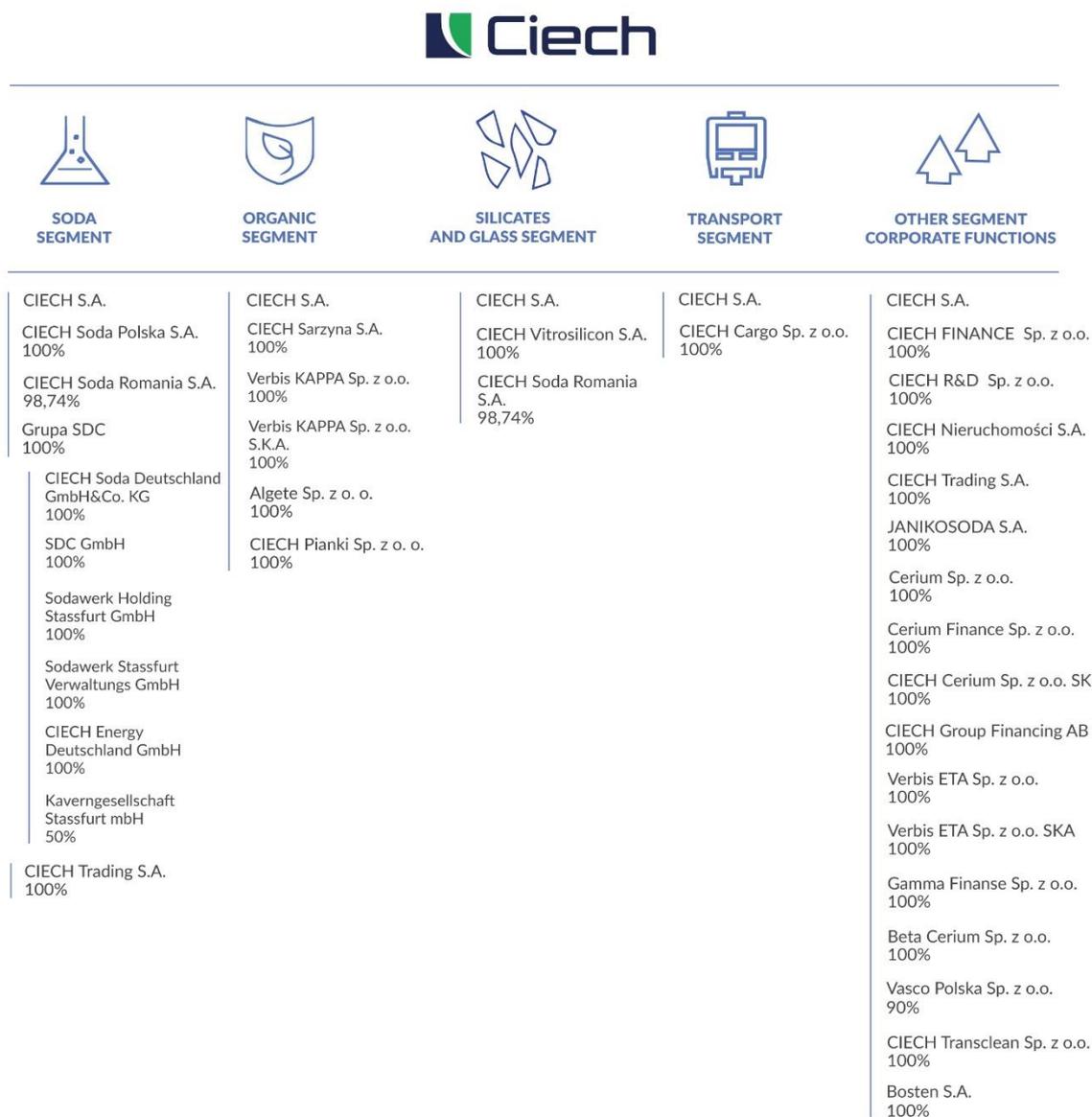
The trading activity is carried out mostly by CIECH S.A., domestic and foreign trading subsidiaries of CIECH S.A., as well as selected manufacturing companies (CIECH Sarzyna S.A., CIECH Vitrosilicon S.A., Grupa SDC, CIECH Pianki Sp. z o.o.) while the manufacturing activity is carried out by production 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 4 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 business segments, including in 2017: 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 2017.



FIGURE 41: SEGMENT STRUCTURE OF THE CIECH GROUP AS AT 31 DECEMBER 2017



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 for 2017.

### 5.3 SCOPE OF ORGANISATION AND MANAGEMENT IN THE CIECH GROUP AND CHANGES IN 2017

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 2017, 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**

On 5 October 2017, CIECH S.A. established a special purpose vehicle, BOSTEN S.A. The share capital of this company amounts to PLN 100 thousand and is divided into 10 thousand shares with the nominal value of PLN 10 each. The issue price of shares is equal to their nominal value. The entire share capital was covered with a cash contribution and acquired by CIECH SA. The company will be involved in R&D activities.

#### **Phasing out and liquidation of businesses**

On 8 November 2017, Polcommerce GmbH was deleted from the Commercial Register pursuant to decision of the General Meeting of Shareholders of the Company dated 18 October 2017 which concluded that the liquidation of the Company – opened on 31 December 2016 – had been completed. The liquidation of the Company resulted from changes in the CIECH Group's business model in the area of sales.

#### **Transformation of legal form of companies**

On 12 October 2017, a Partners' Meeting of the limited partnership under the business name Beta Cerium spółka z ograniczoną odpowiedzialnością spółka komandytowa was held to resolve on the transformation of the partnership's legal form into a limited liability company. Partners of Beta Cerium Sp. z o.o. Sp. k., having reviewed the Plan of Transformation of the Partnership's legal form into a limited liability company dated 10 July 2017, resolved to transform the Partnership into a limited liability company.

#### **Changes in the share capital of companies**

On 23 February 2017, the Extraordinary Shareholders' Meeting of Cerium Finance Sp. z o.o. adopted a resolution on voluntary redemption, effected against payment, of 28,483 shares in this Company held by Gamma Finanse Sp. z o.o., with the nominal value of PLN 50 each and the total nominal value of PLN 1,424 thousand, accounting for 98.99% of the share capital of Cerium Finance Sp. z o.o. The market value of all shares subject to redemption was determined based on a valuation prepared by an independent expert and amounted to PLN 206,757 thousand. Following the redemption, the share capital of Cerium Finance

Sp. z o.o. decreased from PLN 1,439 thousand to PLN 15 thousand. Following the redemption of shares and decrease of the share capital of Cerium Finance Sp. z o.o., the sole shareholder of the company is CIECH Soda Polska S.A.

Pursuant to resolution of the Extraordinary Shareholders' Meeting of CIECH R&D Sp. z o.o. of 28 February 2017 on the increase of the share capital, CIECH S.A., in accordance with the declaration dated 3 March 2017, took up 90,000 new shares in CIECH R&D Sp. z o.o. with the nominal value of PLN 50 each. Shares in CIECH R&D Sp. z o.o. taken up by CIECH S.A. were covered in whole with a cash contribution in the amount of PLN 4,500 thousand, constituting the equivalent of the total nominal price of new shares in CIECH R&D Sp. z o.o. Following the above, the share capital of the Company, registered by the Court on 8 May 2017, increased to PLN 40,000 thousand and is divided into 800,000 shares with the nominal value of PLN 50 each. CIECH S.A. remains the sole shareholder of the Company.

On 26 October 2017, the Extraordinary Shareholders' Meeting of JANIKOSODA S.A. adopted resolution No 1 on increasing the Company's share capital, pursuant to which:

- 1) the share capital is to be increased by the amount of PLN 7,800 thousand, i.e. from PLN 36,530 thousand to PLN 44,330 thousand;
- 2) the share capital was to be increased by way of issue of 260 million series E bearer shares with the nominal value of PLN 0.03 each;
- 3) the issue price of series E shares was to amount to PLN 0.30 per share;
- 4) the shares in the increased share capital of JANIKOSODA S.A. were to be taken up by way of an offer placed by JANIKOSODA S.A. and accepted by CIECH S.A. with its registered office in Warsaw.

The agreement on taking up 260 million series "E" shares in JANIKOSODA S.A., with the nominal value of PLN 0.03 each, by CIECH S.A. was concluded on 26 October 2017. The shares were taken up by CIECH S.A. at the issue price of PLN 0.30 per share and the share premium (agio) was allocated to the Company's supplementary capital. The total issue price of the series "E" shares was PLN 78,000 thousand. CIECH acquired the ownership title to series "E" shares on 22 November 2017 (the date of registration of the increase of the Company's share capital by the District Court).

On 9 November 2017, the Extraordinary General Meeting of Ciech Nieruchomości S.A. resolved to increase the Company's share capital, i.e.:

- the Company's share capital was increased by PLN 18,000 thousand, i.e. from PLN 148 thousand to PLN 18,148 thousand by way of issue of 900 million series D bearer shares with the nominal value of PLN 0.02 per share and issue price of PLN 0.02 per share,
- the issue of series D shares was addressed to CIECH S.A.,
- the pre-emptive right to series D shares held by the sole shareholder of the Company was waived,
- series D shares were taken up by CIECH S.A. in consideration for cash contribution; the agreement on the subscription of shares through a private placement was signed on 9 November 2017. On 3 January 2018, the Court registered the increase of the Company's share capital.

#### **Acquisition of shares in other companies**

On 10 March 2017, the Court registered the change of the sole owner of shares in JANIKOSODA S.A., i.e. registered CIECH FINANCE Sp. z o.o. as the owner, following the sale of the Company's shares under an agreement dated 23 December 2016 concluded between CIECH Trading S.A. and CIECH FINANCE Sp. z o.o.

In 2017, the CIECH Group did not discontinue its activities in any significant area. After the reporting date, there were no material changes in the Group's organisation.

## **5.5 EMPLOYMENT STRUCTURE AND HUMAN RESOURCES**

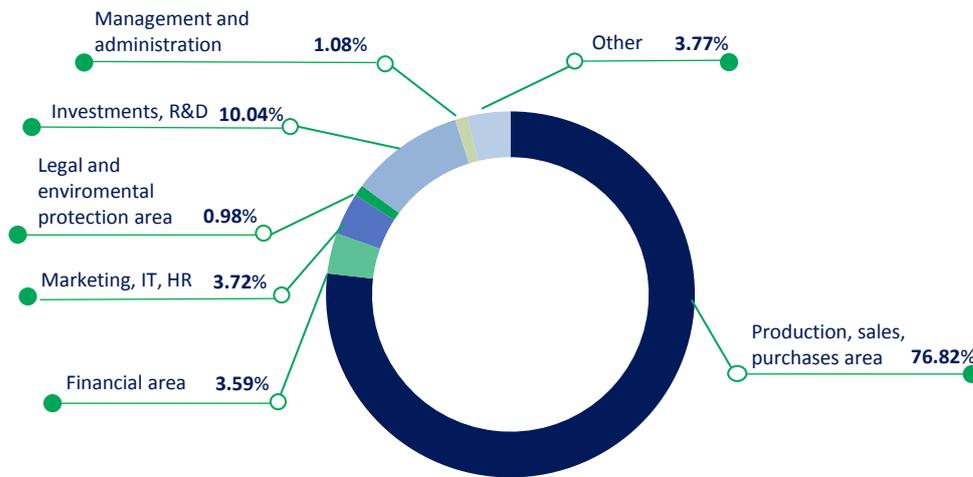
### **Employment structure**

As at the end of 2017, the CIECH Group (the parent company, CIECH S.A., and fully consolidated subsidiaries) employed 3,876 people (of which 470 employees in CIECH S.A.). As at the end of the comparable period, i.e. 2016, the Group employed 3,855 people (including 426 in CIECH S.A.). About 73% 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

	2017	2016
<b>State of employment in people</b>	<b>3,876</b>	<b>3,855</b>
White-collar workers	1,341	1,295
Blue-collar workers	2,535	2,560
<b>Average employment in people</b>	<b>3,867</b>	<b>3,870</b>
White-collar workers	1,314	1,276
Blue-collar workers	2,553	2,594

FIGURE 42: EMPLOYMENT IN THE CIECH GROUP – BUSINESS AREAS

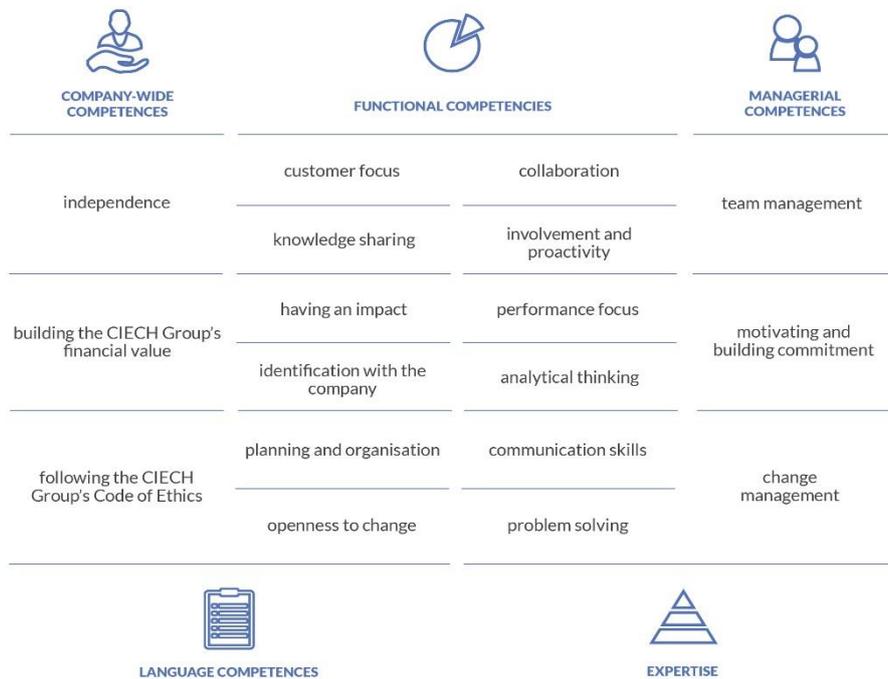


The CIECH Group is a responsible employer and undertakes a number of actions aimed at improving the efficiency of communication with employees and enhancing their satisfaction and involvement.

#### 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 43: COMPETENCE MODEL IN THE CIECH GROUP



**Selected human capital management activities carried out in 2017**

In 2017, 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:

- In the first quarter of 2017, the CIECH Group launched the Ambassador programme. Every employee, regardless of their position or the company in which they work, could participate in the programme. In the recruitment process, 17 employees were selected from the majority of companies from Poland, Germany and Romania. The Ambassadors strengthen communication in the Companies, engage in activities carried out in the business, raise awareness among employees about the Group's products, exchange information and share ideas among companies. In addition to actively participating in the company's life and involving other employees in projects, the Group of Ambassadors meets periodically at workshops organised by the Group HR. During these workshops, participants work on new projects, review their activities and develop their competences. Internal Ambassadors of CIECH are a group of employees who, acting for the benefit of the company's development, are also developing themselves.
- Employee Engagement Survey** – in all Group Companies, employees are periodically asked about opinions on many areas that make up the engaging working environment. The goal of the survey 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.
- In order to promote the sharing of knowledge in our organisation, **an Internal Trainers Programme was launched in 2017**. Employees selected in the recruitment process were prepared to act as internal trainers during the Train the Trainer workshop. In addition to carrying out their day-to-day duties as part of their job, our trainers want to share their knowledge with other employees. That is why the first trainings conducted by internal trainers were carried out already in the fourth quarter of 2017 and focused on the areas of expertise of our trainers. Thanks to the diverse topics of training sessions, it is possible to share knowledge from many areas. Starting from business presentations, team building, purchasing needs in technical procurement, administration, IT, finance for non-financial professionals to training in ISO standards and quality control. Employees from all



Group companies can attend training courses of their choice. The HR Department actively supports trainers in their development by systematically organising workshops for them to broaden their coaching skills, sending knowledge pills and carrying out a super-revision of trainers.

- **Manager Academy Programme**, launched in 2017, aims to strengthen the implemented managerial competencies in the areas of motivating, building commitment, team management and change management. In addition, the results of Employee Engagement and Opinion Survey in 2016 indicated that the area of employee development and recognition is a very important element of human resources management, on which we should focus. Therefore, an additional competence we work on as part of the Manager Academy Programme is the competence in providing feedback. The program is dedicated to all team managers. The CIECH Group has about 400 managers who will take part in 4 training sessions of the Manager Academy. The first training sessions began in January 2018.



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.

#### 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 May 2017, at the Academic Labour Fair in Rzeszów, the Internal Ambassadors organised workshops on business processes in a manufacturing company for students and graduates. We also cooperate with industry schools in Inowrocław and Kruszwica as part of a practical vocational training programme.

#### Human resources management awards received in 2017



In 2017, CIECH S.A. became one of the winners of the "Leader of Human Resources Management" competition. The aim of the competition organised by the Institute of Labour and Social Affairs is to promote knowledge and best practical experience in the field of human resources management by recognising organisations that are successful in this area.

In October 2017, CIECH S.A. received the certificate "HR Najwyższej Jakości" ["Top-quality HR"]. 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.



The CIECH Group attaches great importance to observing the established standards and principles followed in the recruitment process and recognises the need to ensure positive experience of candidates participating in the process. Therefore, it is a member of the Coalition for Friendly Recruitment, established in June 2013.



## SHARES AND SHAREHOLDERS

## 6 SHARES AND SHAREHOLDERS

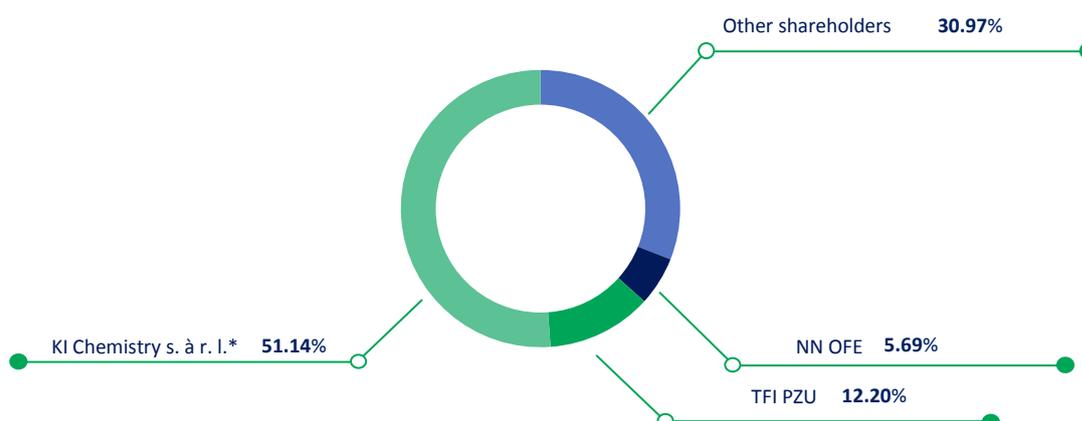
### 6.1 SHAREHOLDER STRUCTURE OF CIECH S.A.

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:

FIGURE44: SHAREHOLDER STRUCTURE AS AT THE DATE OF APPROVAL OF THIS REPORT



\*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 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

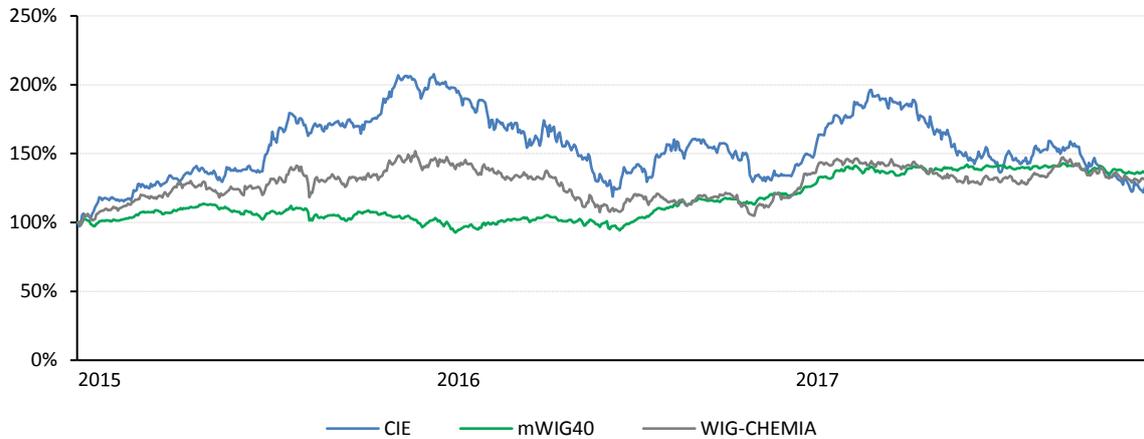
Name	CIECH S.A.
Abbreviated name	CIECH
Ticker	CIE
ISIN	PLCIECH00018
Bloomberg ticker	CIE PW
Listed from	10.02.2005
Number of shares	52,699,909
Segment	Large company (capitalisation of over EUR 250 million)
Sector groups	chemicals, fertilisers and nitrogen compounds
Indices	WIG, mWIG40, WIG-CHEMIA, WIG-Poland, 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
	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.	0.43%
	mWIG40 – an index grouping 40 medium companies listed on the Main Market of the Warsaw Stock Exchange.	1.82%
	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.	25.76%
	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.	0.44%
	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 45: CHANGES IN PRICES OF CIECH S.A.'S SHARES IN COMPARISON WITH CHANGES IN INDICES



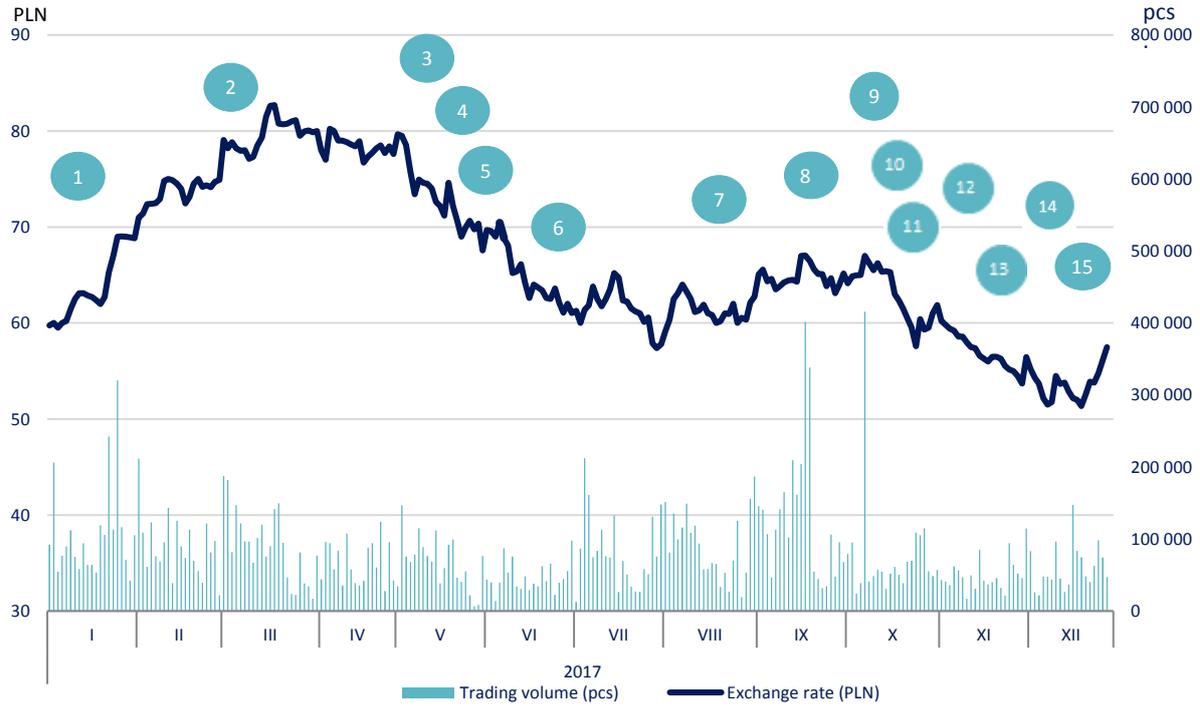
Source: Bloomberg data; share prices converted accordingly.

In 2017, the main WSE index, WIG, increased by 23.2% over the previous year, reaching 63,746.20 points. WIG20, i.e. the index that groups twenty largest companies, increased by 26.35% and reached 2,461.21 points at the end of 2017. Over the past year, mWIG40, an index of mid-cap companies, increased from 4,215.02 points to 4,847.27 points, i.e. by 15.0%. The industry index, WIG-Chemia, increased by 11.2% to the level of 15,297.93 points at the close of the last session in the year.

**PLN 3.03 billion** – market capitalisation of CIECH S.A. at the end of 2017

In the first quarter of 2017, the CIECH S.A. share price moved in an upward trend, followed by a downward trend lasting until the end of the second quarter. Then the price moved in a side trend, followed by declines at the end of the year. In 2017, the price of CIECH S.A.'s shares ranged from PLN 50.52 to PLN 88.68. The closing price during the last 2017 session amounted to PLN 57.50, which is a 1.39% decline as compared to the closing price at the end of 2016.

FIGURE 46: PRICE OF CIECH S.A.'S SHARES AND TRADING VOLUME IN 2017



\* Source: WSE data.

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1 Soda segment – new branding of soda products</li> <li>2 20.03: Publication of the Annual report for 2016</li> <li>3 16.05: Publication of the Report for Q1 2017</li> <li>4 24.05: Appointment of the Management Board for the new term of office</li> <li>5 GMP+ certificate obtained for feed salt</li> <li>6 Decision to introduce new salt products to the portfolio: salt for dishwashers and salt licks</li> <li>7 24.08: Publication of the Report for H1 2017</li> <li>8 Introduction of a new organic product category in the ZIEMOVIT brand portfolio</li> </ul> | <ul style="list-style-type: none"> <li>9 Completion of the construction of a warehouse for long polyurethane foam blocks</li> <li>10 Launch of the second phase of an investment in pharmaceutical-grade sodium bicarbonate in Germany</li> <li>11 Introduction of specialised fertilisers to the portfolio of CIECH Sarzyna S.A.</li> <li>12 13.11: Publication of the Report for Q3 2017</li> <li>13 23.11.: Decision to initiate the preparatory stage of an investment in a new salt production plant in Germany</li> <li>14 05.12: Redemption of series O2 bonds with a value of PLN 160 million</li> <li>15 Completion of the construction of a modern high-storage warehouse for salt products</li> </ul> |
|---|--|

FIGURE 47: 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 2017, the average number of the company's shares changing hands in a trading session was 81 thousand. The average volume of trading per session was PLN 5.4 million, and the average number of trades per session was 830.

TABLE 43: DATA CONCERNING SHARES OF CIECH S.A. AT THE WSE

<b>CIECH S.A.'s shares – statistics</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
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)	57.50	58.31	86.00
Capitalization of the company as at the end of the year (PLN million)	3,030	3,073	4 532
Maximum price in the year (PLN)	88.68	87.29	88.00
Minimum price in the year (PLN)	50.52	48.89	40.51
Average trading volume per session (number of shares)	80,995	82,422	47,048
Average trading value per session (PLN)	5,399,000	5,474,000	2,936,000
Average number of trades per session	830	851	278
<b>Capital market indexes for CIECH S.A. shares</b>	<b>31 December 2017</b>	<b>31 December 2016</b>	<b>31 December 2015</b>
EPS (PLN)			
Earnings/ number of shares	7.47	11.26	6.51
P/E (x)			
Price / earnings per share (P/E)	7.7	6.1	12.4
P/BV (x)			
Market price per share / book value per share (P/BV)	1.96	1.93	3.61
EV/EBITDA (x)	4.76	4.83	8.33

\* 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

2017 is another year of intensive efforts of CIECH S.A. in the area of investor relations. The Company is committed to maintaining the highest standards of corporate governance and communication and ensuring continuous and equal access to information about the Company and the Group to all stakeholders.

Key activities of CIECH S.A.:

- **Direct meetings** – the company organises group meetings with the Management Board to discuss financial performance (dedicated to the Polish sell-side and buy-side) and representatives of CIECH S.A. are also available for individual meetings where required.
- **Roadshows and investor conferences** – the company also actively meets with foreign investors; in 2017 the company participated one non-deal roadshow and five investor conferences held abroad.
- **Investor Seminar** – in 2017 the company organised an educational meeting for representatives of Polish brokerage houses and investment funds. At the meeting, in addition to the representative of the Management Board, the company was represented by specialists from individual business areas.
- **Performance teleconferences** – in 2017, after the publication of financial results, the company was also available to foreign investors via teleconferences focused on the company's performance.
- **Investor Chats** – since the beginning of 2017, CIECH S.A.'s representatives have been available for individual investors via chat sessions. They are organised every quarter immediately after the publication of financial results by the company.
- **WallStreet Conference** – in 2017, CIECH S.A.'s representatives once again 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 "Twoje Inwestycje" (information stand) and Shareholder Forum (presentation in the form of a lecture).
- **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 content and information (videos, presentations, infographics, one-pagers). In 2017, the website was recognised by the market – CIECH SA, as one of four Polish companies in the category of those belonging to WIG20 and mWIG40, was in the final stage of the prestigious competition organised by the Polish Association of Listed Companies: "Golden Issuer Website". The website is available in Polish and English: <http://ciechgroup.com/relacje-inwestorskie/>.

In 2017, **115 meetings\*** were held and CIECH S.A.'s representatives spent a total of **102 hours** at such meetings.

*\* individual meetings, conference calls, investor conferences, performance meetings, non-deal roadshow*

TABLE 45: RECOMMENDATIONS FOR CIECH S.A.'S SHARES

<b>13</b>	Buy, accumulate
<b>9</b>	Hold, Neutral
<b>4</b>	Sell

\*Recommendations available to the company.

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 2017, **13 financial institutions issued 26 recommendations** with regard to CIECH S.A.'s

TABLE 46: SUMMARY OF RECOMMENDATIONS AND REPORTS OF BROKERAGE HOUSES IN 2017

Highest target price	PLN 90.02
Median	PLN 73.74
Lowest target price	PLN 45.00

TABLE 47: DETAILED INFORMATION ABOUT RECOMMENDATIONS FOR CIECH S.A. ISSUED IN 2017

Date	Institution	Recommendation	Target price
19.12.2017	Trigon DM	BUY	PLN 77.20
18.12.2017	DM BOŚ	SELL	PLN 45.00
17.12.2017	DM PKO BP	HOLD	PLN 59.20
11.12.2017	DM BDM	BUY	PLN 68.60
14.11.2017	DM BZ WBK	BUY	PLN 74.29
19.10.2017	Trigon DM	BUY	PLN 76.40
02.10.2017	mDM	BUY	PLN 79.54
01.09.2017	mDM	BUY	PLN 77.00
10.08.2017	DM Vestor	NEUTRAL	PLN 68.00
21.07.2017	Raiffeisen	HOLD	PLN 67.00
20.07.2017	Trigon DM	BUY	PLN 83.50
18.07.2017	DM BOŚ	SELL	PLN 60.00
21.06.2017	Wood&Company	HOLD	PLN 73.00
13.06.2017	DM Vestor	NEUTRAL	PLN 72.30
07.06.2017	Erste Securities	SELL	PLN 57.00
02.06.2017	mDM	BUY	PLN 82.00
24.04.2017	DM BOŚ	HOLD	PLN 82.50
21.04.2017	Trigon DM	BUY	PLN 88.40
21.04.2017	BZ WBK	BUY	PLN 90.02
24.03.2017	DM mBank	HOLD	PLN 82.00
14.03.2017	DM PKO BP	BUY	PLN 88.00
03.03.2017	Raiffeisen	HOLD	PLN 83.00
22.02.2017	DM BDM	ACCUMULATE	PLN 82.40
22.02.2017	Pekao IB	SELL	PLN 64.50
24.01.2017	Wood&Company	HOLD	PLN 65.00
23.01.2017	mDM	ACCUMULATE	PLN 71.30

### Dividend

Until the date of approval of the report for publication, the Management Board of CIECH S.A. did not adopt a resolution regarding the proposal to distribute the 2017 net profit.

On 22 June 2017, the Ordinary General Meeting of Shareholders of CIECH S.A. adopted a resolution regarding the allocation of the entire net profit of the Company for 2016, in the amount of PLN 152,440 thousand, to the Company's supplementary capital.

## 6.3 RATINGS

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. At CIECH S.A.'s request, Standard & Poor's withdrew the corporate rating of CIECH S.A. on 6 December 2017. At the same time, Standard and Poor's completed its final assessment of the Company and confirmed that the long-term rating was "BB-" with a stable outlook.

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 outlook. 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. At CIECH S.A.'s request, Moody's withdrew the corporate rating of CIECH S.A. on 20 December 2017.

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/confirmation of ratings	6 December 2017	3 December 2015

## 6.4 OTHER INFORMATION CONCERNING SHARES AND SHAREHOLDERS

### Issue of securities and utilisation 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 2017, 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 2017, 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 2017, 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 2017. 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. did not hold any shares in other companies of the CIECH Group as at 31 December 2017.



# 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 2017.

In 2017, 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/dobre-praktyki>

The Management Board of CIECH S.A. states that in the financial year ended 31 December 2017, 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 2017

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 2017, the Company departed from the application of 4 recommendations: IV.R.2., VI.R.1., VI.R.2., VI.R.3. and 15 detailed principles: I.Z.1.15., I.Z.1.16., I.Z.1.17., I.Z.1.20., II.Z.7., 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>		
	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:	
I.Z.1.15.	<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.
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</li> </ul>	Such grounds will be published, if they are prepared in accordance with provisions of the law.



Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
I.Z.1.20.	<p>Meeting of Shareholders to read them and pass the resolution having sufficient background,</p> <ul style="list-style-type: none"> <li>an audio or video recording of a general meeting.</li> </ul>	<p>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.</p>
<b>II. The Management Board and the Supervisory Board</b>		
II.Z.7.	<p>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.</p>	<p>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.</p>
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>	<p>The assessment of the Supervisory Board refers to operations of control systems, risk management, compliance (policy accepted for application on 1 February 2018) 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.</p>
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>	<p>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.</p>
<b>IV. General Meeting of Shareholders and relations with shareholders</b>		
IV.R.2.	<p>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 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 pleni-potentiary.</p>	<p>In the opinion of CIECH S.A., the shareholder structure is dispersed, but this does not justify holding general meetings using electronic communication 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.</p>
IV.Z.2.	<p>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.</p>	<p>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.</p>
IV.Z.7.	<p>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.</p>	<p>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</p>



Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
		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 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.



Recommendation / detailed principle number	Content	Reasons for departing from the recommendation / detailed principle
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 be 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 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.	CIECH S.A. does not have the remuneration policy, thus the principle may not be 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.

### 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 (as amended) 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 statutory auditor.

The Supervisory Board selects the statutory auditor from a group of reputable auditing firms, guaranteeing high standard of services and the required independence.

On 26 May 2015, the Supervisory Board of CIECH S.A. selected 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, 2016 and 2017.

Procedures for authorisation 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 half-year 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 statutory 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 (with later amendments).

The access to the informational resources of the IT system is limited by appropriate authorisations for authorised 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 statutory auditors from their auditing of the financial statements and by the high evaluations of the recipients of these statements.

The selection of the entity authorised 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 authorised to audit financial statements may not conduct audits of the Company/Group for more than 5 subsequent years;
- the first agreement on the audit of financial statements is concluded for a period not shorter than 2 years;
- the entity authorised to audit financial statements may conduct the audit in the Company/Group again after at least 3 years from the end of the last audit, unless the duration of the audit order is 5 years, in which case the entity authorised to audit financial statements may conduct the audit in the Company/Group again after at least 4 years from the end of the last audit;

- a key statutory auditor may not perform financial audit activities in the Company/Group for a period of more than 5 subsequent years;
- a key statutory auditor may perform financial audit activities in the Company/Group again after at least 3 years from the end of the last audit.

## 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 (%)
KI Chemistry s. à r. l. with its registered office in Luxembourg*	Ordinary bearer	26,952,052	26,952,052	51.14%	51.14%
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 entities 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 of 29 July 2005 on Public Offering and Conditions Governing the Introduction of Financial Instruments to Organised Trading, and on Public Companies (Journal of Laws of 2009, No 185, item 1439). However, on the basis of the list of entities holding at least 5% of votes at the Ordinary Meeting of Shareholders of CIECH S.A. on 22 June 2017 (Current report 13/2017), Nationale-Nederlanden Otwarty Fundusz Emerytalny (hereinafter "NN") held 4.74% of the total number of votes in the Company. Until the date of publication hereof, the Company has not received a notification from NN on the decrease in the number of votes held below 5% of the total number of votes in the Company.

## 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 authorise 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 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 purchase, 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 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 representative or 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;
- persons servicing the General Meeting;
- representatives of mass media invited by the Company's Management Board, as long as the General 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 statutory auditor of the Company invited by the Company's Management Board.

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 Chairman of the General Meeting may independently order breaks at the meeting other than the breaks ordered by the General 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.

Participants of the General 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, submitted in a written form to the Chairman of the General Meeting, may concern:
  - amendments to draft resolutions,
  - removal of a specific issue from the agenda,
  - rearrangement of the agenda,

- appointment and removal of Supervisory Board members.
2. Procedural motions may be submitted to the Chairman of the General Meeting orally. 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 General Meeting are uploaded to the Company website. Resolutions of the General Meeting are adopted by an absolute majority of votes, unless the provisions of the Code of Commercial Partnerships and Companies or the Articles of Association provide for stricter terms of adoption.
- 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 by open ballot. A secret ballot is ordered in cases provided for in the Code of Commercial Partnerships and Companies and the Company's Articles of Association. A secret ballot is also ordered when a Participant in the General Meeting requests the adoption of a resolution by means of a secret ballot.
- The results of the vote are announced by the Chairman of the General Meeting. Once the results of the vote are announced, the Chairman of the General Meeting allows the participants in the General Meeting to submit their objections with a brief justification to be included in the minutes on the General Meeting which are drawn-up by a notary in the form of a notarial deed.
- A Participant in the General Meeting who is a member of the Company's governing authorities may take part in the vote on the acknowledgement of fulfilment of duties by other members of that authority of the Company that he/she is a member of.

### **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 number of Supervisory Board members is determined by the General Meeting by way of a resolution. 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 statutory 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 million, 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 million, 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. prepares and 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.

From 1 January to 31 December 2017, the Supervisory Board operated in an unchanged 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 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 2017 and in note 9.3.4 to the Financial Statements of CIECH S.A. for 2017.

Detailed information about CIECH S.A. Supervisory Board Members is presented below.

TABLE 51: CIECH S.A.'S SUPERVISORY BOARD AS AT 31 DECEMBER 2017

<b>SEBASTIAN KULCZYK</b> Chairman of the Supervisory Board of CIECH S.A. since 8 October 2015	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.  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.  Sebastian Kulczyk does not conduct any activities that are competitive to the business of CIECH S.A.
<b>TOMASZ MIKOŁAJCZAK</b> Deputy Chairman of the Su- pervisory Board of CIECH S.A. since 10 July 2014, Supervisory Board Member since 7 July 2014.	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 Round table.

Tomasz Mikołajczak does not conduct any activities that are competitive to the business of CIECH S.A.

**PIOTR AUGUSTYNIAK**  
Supervisory Board Member  
of CIECH S.A. since 7 July  
2014

Piotr Augustyniak is an independent financial advisor. In 1994-2011, he worked for Enterprise Investors (EI) as an analyst, investment director and vice-president. In 2006-2011, he collaborated with EI as a partner. In that period, he was responsible for monitoring activities and participated in more than 40 transactions related to EI companies — sales on the private market of controlling blocks of shares (Bauma, Agros Nova, Opoczno), introduction of companies to the Warsaw Stock Exchange (at present: Asseco Poland, PEP, Opoczno, Teta, Sfinks, AB, Magellan). Piotr Augustyniak was also in charge of financial restructuring of Slovak logistic company of STD Donivo (development and supervision of the restructuring plan encompassing negotiations with a group of banks financing the company).

In the period from June to December 2001, he served the role of the President of the Management Board of Energoaparatura S.A. In 1993–1994, he was employed by the Ministry of Ownership Transformation, first as a project manager and then as a manager of the privatization team. In 1992-1993, he was employed as an assistant of the financial officer in the Ownership Transformation Foundation at the Ministry of Ownership Transformation. In 1991-1992, he worked at New York Times (Warsaw) as a translator. Piotr Augustyniak is also a Member of the Supervisory Boards of: Asseco Poland S.A., PZ Cormay S.A.

Piotr Augustyniak does not conduct any activities that are competitive to the business of CIECH S.A.

**DOMINIK LIBICKI**  
Supervisory Board Member  
of CIECH S.A. since 7 March  
2016

A graduate from the Faculty of Environmental Protection at the Wrocław University of Technology.

Currently, he is the member of the supervisory boards in the following companies: Polenergia S.A., Serinus Energy Inc. and Insignis TFI S.A.

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 Telefonía 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 the Polish Confederation of Private Employers, "Lewiatan". Member of the Management Board of Kulczyk Investments.

Dominik Libicki does not conduct any activities that are competitive to the business of CIECH S.A.

**MARIUSZ NOWAK**  
Supervisory Board Member  
of CIECH S.A. since 7 July  
2014

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 Chaussées in Paris.

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.

Mariusz Nowak does not conduct any activities that are competitive to the business of CIECH S.A.

**ARTUR OLECH**  
Supervisory Board Member  
of CIECH S.A. since 7 July  
2014

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.

President of the Management Board of a technology and consulting company, Hipro Consulting, since October 2016.

President of the Management Board of Pocztove Towarzystwo Ubezpieczeń na Życie S.A. between December 2014 and August 2016. Functions held at Pocztove Towarzystwo Ubezpieczeń na Życie: Vice President of the Management Board from September 2014, acting President of the Management Board from March 2015 and President of the Management Board between August 2015 and August 2016.

President of the Management Board of Pocztove Życie Sp. z o.o. (currently: Centrum Rozliczania Ubezpieczeń Sp. z o.o.) between September 2014 and February 2015. 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.

---

Artur Olech does not conduct any activities that are competitive to the business of CIECH S.A.

---

#### 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.

The Audit Committee is composed of at least three Members of the Committee, including the Chairman of the Audit Committee. A majority of Members of the Audit Committee, including its Chairman, should meet the independence criteria set forth in Article 129(3) of the Act.

According to the Audit Committee Regulations the tasks of the Audit Committee include in particular:

1. monitoring:
  - the financial reporting process;
  - effectiveness of the internal control system, as well as risk management and internal audit systems, also with regard to financial reporting;
  - performance of financial auditing activities, in particular auditing by the audit firm, taking into consideration any applications and determinations of the Audit Oversight Commission resulting from the control carried out in the audit firm;
2. control and monitoring of independence of the statutory auditor and the audit firm, especially, if the audit firm provides to the public interest entity services other than auditing;
3. informing the Supervisory Board about audit results and explanation of how this audit contributed to reliability of financial reporting in the Company, as well as what was the role of the Audit Committee in the audit process;
4. assessment of independence of the statutory auditor and expressing consent to for his/her provision of acceptable services other than audits in the Company;
5. preparation of the policy of selecting the audit firm to conduct the audit;
6. preparation of the policy of providing acceptable services other than auditing by the audit firm conducting the audit, its affiliates and by a member of the audit firm's network;
7. determination of procedures of selecting the audit firm by the Company;
8. presentation of a recommendation concerning the appointment of the audit firm to the Supervisory Board, in accordance with the policies referred to in items e) and f) above. In this recommendation, the Audit Committee:
  - i. suggests the audit firm to conduct the statutory audit;
  - ii. states that the recommendation is free of influences of third parties;
  - iii. states that the audited public interest entity did not conclude any contracts containing the clauses referred to in Article 66(5a) of the Accounting Act;
9. in the case when the selection referred to in section 1h) not apply to extension of the contract for auditing the financial statements, the recommendation of the Audit Committee contains at least two selection options for selecting the audit firm, along with a substantiation, and indication of reasonable preference of the Audit Committee towards one of them;
10. annual review of the internal audit schedule;
11. assessment of the results of internal controls, including internal audits, and schedules of elimination of errors detected;
12. reviews of material agreements concluded with related parties;
13. preliminary assessment of the annual financial plan prepared by the Management Board as well as of the report on its implementation;
14. submission of recommendations aimed at ensuring reliability of the financial reporting process in the Company.

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. As at 1 January 2017, the composition of Audit Committee was as follows:

- Mariusz Nowak – Chairman of the Committee
- Piotr Augustyniak – Committee Member
- Artur Olech – Committee Member.

On 19 October 2017, the Audit Committee appointed Mr Piotr Augustyniak to perform the duties of the Chairman of the Audit Committee. As at 31 December 2017, the composition of Audit Committee was as follows:

- Piotr Augustyniak – Chairman of the Committee
- Mariusz Nowak – 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 2017, the composition of the Remuneration Committee was as follows:

- Tomasz Mikołajczak – Chairman of the Committee
- Mariusz Nowak – Committee Member

As at 31 December 2017, 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 term of office of a Management Board Member expires at the close of the General Meeting approving the financial statements for the last full financial year in which the Management Board Member held his position in the Company's Management Board during the term of office for which this Member was appointed.

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 June 2017. 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 passed by an absolute majority of votes cast with a quorum of at least half of the Management Board members. In the case of a voting tie, the President of the Management Board has the casting vote. 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. adoption of motions addressed to the Supervisory Board or the General Meeting
4. convening General Meetings and determining their 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. granting 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. application for bank guarantees, assumption of liabilities under promissory notes, the grant of all types of guarantees and the establishment of other securities.

A Management 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 of 1 January 2017, the Company's Management Board operated in the following composition:

- Maciej Tybura – President of the Management Board
- Artur Król – Member of the Management Board
- Artur Osuchowski – Member of the Management Board

On 22 June 2017, due to the expiry of the term of office of the Management Board, the Supervisory Board of CIECH S.A. appointed the Management Board of CIECH S.A. for a new term of office in an unchanged composition.

- Maciej Tybura – President of the Management Board
- Artur Król – Member of the Management Board
- Artur Osuchowski – Member of the Management Board

As at 31 December 2017, the Management Board performed its functions in an unchanged composition.

On 6 March 2018, the Supervisory Board of CIECH S.A. appointed Mr Krzysztof Szlaga as a Member of the Management Board of CIECH SA with effect from 12 March 2018.

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: CIECH S.A.'S MANAGEMENT BOARD AS AT 31 DECEMBER 2017

**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 Cost Management (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).

A member of numerous Supervisory Boards: CIECH S.A., KGHM TFI S.A., KGHM International Ltd, KGHM Metraco S.A., Tauron Polska Energia S.A., Telefonía Dialog S.A., Pol-Miedź Trans Sp. z o.o., Walcownia Metali Nieżelaznych Sp. z o.o. in Gliwice, MCC & Fagor Electrodomeesticos Group. At present, he serves as the Chairman of the Supervisory Board of PHP Mercus Sp. z o.o.

**Scope of responsibilities in CIECH S.A. – supervision over organisational units:**

- Group Management Office
- Strategy and Innovation Division
- Human Resources Department
- Audit and Control Department
- Legal and Compliance Department
- 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:
  - Accounting Department
  - Finance Management Department
  - Controlling Department
  - Inowrocław Branch
  - Nowa Sarzyna Branch
- Independent position: OHS Coordinator

**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 Koksownicze “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:

- Investment and Maintenance Division, including:
  - Investment Management Department
  - Facilities Maintenance Department
- Environmental Department
- Energy Department
- Independent position: Management Board Advisor for Chemical Production

**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
- Supply Chain Management Division, including:
  - Logistics Department
- Salt Business Unit
- Soda Business Unit, including:
  - Soda Ash Sales Department
  - Sodium Bicarbonate Sales Department
  - Sales Analysis Support Department
  - Production Department
- Independent positions, including: Coordinator of the Management Board for the Integrated Quality and Information Security Management System Representative of the Management Board for the Integrated Quality and Information Security Management System 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 2017 and note 9.3.4 to the Financial Statements of CIECH S.A. for 2017.

## 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.

**LIST OF TABLES**

TABLE 1: OTHER FACTORS AFFECTING THE CIECH GROUP'S ACTIVITIES	25
TABLE 2: IMPLEMENTATION OF STRATEGIC OBJECTIVES	44
TABLE 3: ACTIVITIES OF THE CIECH GROUP IN 2017	45
TABLE 4: DEVELOPMENT PROSPECTS OF THE CIECH GROUP AND CIECH S.A. IN INDIVIDUAL BUSINESS SEGMENTS	46
TABLE 5: LIST OF THE MOST SIGNIFICANT RISKS RELATED TO THE FUNCTIONING OF THE GROUP	50
TABLE 6: LIST OF INTEGRATED PERMITS HELD BY CIECH GROUP COMPANIES.	60
TABLE 7: CONSOLIDATED STATEMENT OF PROFIT OR LOSS	65
TABLE 8: CONSOLIDATED EBITDA OF THE CIECH GROUP	66
TABLE 9: ADJUSTED EBITDA OF THE CIECH GROUP	67
TABLE 10: THE CIECH GROUP'S PERFORMANCE IN THE SODA SEGMENT	68
TABLE 11: THE CIECH GROUP'S PERFORMANCE IN THE ORGANIC SEGMENT	69
TABLE 12: THE CIECH GROUP'S PERFORMANCE IN THE SILICATES AND GLASS SEGMENT	70
TABLE 13: THE CIECH GROUP'S PERFORMANCE IN THE TRANSPORT SEGMENT	71
TABLE 14: BASIC CONSOLIDATED BALANCE SHEET DATA	72
TABLE 15: CONSOLIDATED CASH FLOWS OF THE CIECH GROUP	73
TABLE 16: ABILITY TO GENERATE CASH FLOWS OF THE CIECH GROUP	73
TABLE 17: LIQUIDITY RATIOS OF THE CIECH GROUP	73
TABLE 18: WORKING CAPITAL OF THE CIECH GROUP	74
TABLE 19: THE CIECH GROUP'S PROFITABILITY RATIOS	74
TABLE 20: CIECH GROUP'S DEBT RATIOS	75
TABLE 21: CIECH GROUP'S PERFORMANCE IN THE 4 <sup>TH</sup> QUARTER OF 2017	76
TABLE 22: STATEMENT OF PROFIT OR LOSS OF CIECH S.A.	77
TABLE 23: CIECH S.A.'S SALES BY BUSINESS SEGMENT	78
TABLE 24: CIECH S.A.'S GROSS PROFIT ON SALES BY BUSINESS SEGMENT	79
TABLE 25: CIECH S.A.'S EBITDA IN 2017	80
TABLE 26: ADJUSTED EBITDA OF CIECH S.A.	80
TABLE 27: SELECTED BALANCE SHEET DATA OF CIECH S.A.	81
TABLE 28: CIECH S.A.'S CASH FLOWS	81
TABLE 29: CIECH S.A.'S ABILITY TO GENERATE CASH FLOWS	82
TABLE 30: CIECH S.A.'S PROFITABILITY RATIOS	82
TABLE 31: CIECH S.A.'S LIQUIDITY RATIOS	83
TABLE 32: CIECH S.A.'S WORKING CAPITAL	83
TABLE 33: CIECH S.A.'S DEBT RATIOS	83
TABLE 34: CIECH S.A.'S PERFORMANCE IN THE 4 <sup>TH</sup> QUARTER OF 2017	84
TABLE 35: KEY INVESTMENT PROJECTS OF THE CIECH GROUP IMPLEMENTED IN 2017	85
TABLE 36: SUMMARY OF LOANS GRANTED BY CIECH S.A. TO SUBSIDIARIES IN 2017	89
TABLE 37: SUMMARY OF LOANS CONCLUDED BETWEEN SUBSIDIARIES IN THE CIECH GROUP IN 2017	89
TABLE 38: CONTINGENT ASSETS AND LIABILITIES OF THE CIECH GROUP	90
TABLE 39: SURETIES AND GUARANTEES GRANTED AS AT 31 DECEMBER 2017	91
TABLE 40: EMPLOYMENT IN THE CIECH GROUP – WHITE COLLAR WORKERS AND BLUE COLLAR WORKERS	99
TABLE 41: BASIC INFORMATION ON THE SHARES	104
TABLE 42: INDICES CONTAINING CIECH S.A.'S SHARES	104
TABLE 43: DATA CONCERNING SHARES OF CIECH S.A. AT THE WSE	107
TABLE 44: KEY INFORMATION ABOUT SHARES LISTED ON THE FRANKFURT STOCK EXCHANGE	108
TABLE 45: RECOMMENDATIONS FOR CIECH S.A.'S SHARES	109
TABLE 46: SUMMARY OF RECOMMENDATIONS AND REPORTS OF BROKERAGE HOUSES IN 2017	109
TABLE 47: DETAILED INFORMATION ABOUT RECOMMENDATIONS FOR CIECH S.A. ISSUED IN 2017	109
TABLE 48: RATINGS AWARDED TO CIECH S.A.	110
TABLE 49: CORPORATE GOVERNANCE PRINCIPLES NOT APPLIED BY CIECH S.A.	112
TABLE 50: SHAREHOLDERS OF CIECH S.A. HOLDING SIGNIFICANT BLOCKS OF SHARES	117
TABLE 51: CIECH S.A.'S SUPERVISORY BOARD AS AT 31 DECEMBER 2017	121
TABLE 52: CIECH S.A.'S MANAGEMENT BOARD AS AT 31 DECEMBER 2017	126

## LIST OF FIGURES

FIGURE 1: KEY OPERATING SEGMENTS AND MAJOR CATEGORIES OF THE CIECH GROUP'S PRODUCTS	10
FIGURE 2: PRODUCTION PLANTS WITHIN THE CIECH GROUP	11
FIGURE 3: GEOGRAPHICAL STRUCTURE OF THE CIECH GROUP'S REVENUES IN 2017	12
FIGURE 4: SODA PRODUCTION PROCESS	14
FIGURE 5: CIECH GROUP'S SODA PLANTS AND KEY MARKETS	15
FIGURE 6: PRODUCTION CAPACITY OF THE CIECH GROUP'S SODA PLANTS	16
FIGURE 7: SALT PRODUCTION PROCESS	17
FIGURE 8: SALT PRODUCTION IN THE CIECH GROUP AND KEY MARKETS	17
FIGURE 9: PRODUCTION CAPACITY OF THE CIECH GROUP'S PLANTS – SALT	18
FIGURE 10: RESIN PRODUCTION CAPACITY OF THE CIECH GROUP (CIECH SARZYNA)	19
FIGURE 11: SODA ASH CONSUMPTION STRUCTURE	26
FIGURE 12: PRODUCTION CAPACITIES OF SODA ASH IN THE WORLD BY REGION	27
FIGURE 13: LARGEST GLOBAL PRODUCERS OF SODA ASH BY PRODUCTION CAPACITIES IN 2017	27
FIGURE 14: SODIUM BICARBONATE CONSUMPTION STRUCTURE	28
FIGURE 15: PRODUCTION CAPACITIES OF SODIUM BICARBONATE BY REGION	29
FIGURE 16: LARGEST PRODUCERS OF SODIUM BICARBONATE IN THE REGION COMPRISING EUROPE AND TURKEY BY PRODUCTION CAPACITY IN 2017	29
FIGURE 17: MAJOR SALT PRODUCERS IN THE WORLD (INCLUDING POLAND)	31
FIGURE 18: SALT CONSUMPTION STRUCTURE IN EUROPE	32
FIGURE 19: SALT PRODUCTION IN POLAND WITH DIVISION INTO KINDS IN THE YEARS 2007-2017	32
FIGURE 20: STRUCTURE OF GLOBAL CONSUMPTION OF CROP PROTECTION CHEMICALS BY TYPE AND BY VALUE	33
FIGURE 21: STRUCTURE OF SALES OF CROP PROTECTION CHEMICALS BY REGION (% OF VALUE)	34
FIGURE 22: SALES OF PLANT CROP CHEMICALS IN EUROPE IN 2010-2017	34
FIGURE 23 VOLUME OF PRODUCTION AND CONSUMPTION OF CROP PROTECTION CHEMICALS IN POLAND IN THE YEARS 2008-2017	35
FIGURE 24: APPLICATION SEGMENTS OF EPOXY RESINS IN EUROPE	36
FIGURE 25: GEOGRAPHIC STRUCTURE OF EPOXY RESINS PRODUCTION CAPACITY	37
FIGURE 26: APPLICATION SEGMENTS OF UNSATURATED POLYESTER RESINS IN EUROPE	38
FIGURE 27: GEOGRAPHIC STRUCTURE OF UNSATURATED POLYESTER RESINS PRODUCTION CAPACITY	38
FIGURE 28: APPLICATION SEGMENTS OF FLEXIBLE POLYURETHANE FOAMS IN EUROPE	39
FIGURE 29: APPLICATION SEGMENTS OF SODIUM SILICATES IN EUROPE	40
FIGURE 30: GEOGRAPHIC STRUCTURE OF PRODUCTION CAPACITIES OF SODIUM SILICATES	41
FIGURE 31: APPLICATION SEGMENTS OF POTASSIUM SILICATES IN EUROPE	42
FIGURE 32: STRATEGY OF THE CIECH GROUP for 2014-2019	44
FIGURE 33: ENVIRONMENTAL MANAGEMENT SYSTEM IN THE CIECH GROUP	59
FIGURE 34: STRATEGIC OBJECTIVES IN THE AREA OF RESEARCH, INNOVATION AND DEVELOPMENT	62
FIGURE 35: REVENUES AND ADJUSTED EBITDA IN THE SODA SEGMENT OF THE CIECH GROUP	68
FIGURE 36: REVENUES AND ADJUSTED EBITDA IN THE ORGANIC SEGMENT OF THE CIECH GROUP	69
FIGURE 37: REVENUES AND ADJUSTED EBITDA IN THE SILICATES AND GLASS SEGMENT OF THE CIECH GROUP	70
FIGURE 38: REVENUES AND ADJUSTED EBITDA IN THE TRANSPORT SEGMENT OF THE CIECH GROUP	71
FIGURE 39: PROFITABILITY LEVELS OF THE CIECH GROUP	75
FIGURE 40: DEBT OF THE CIECH GROUP (IN PLN MILLION) AND NET DEBT/EBITDA (A) RATIO	76
FIGURE 41: SEGMENT STRUCTURE OF THE CIECH GROUP AS AT 31 DECEMBER 2017	96
FIGURE 42: EMPLOYMENT IN THE CIECH GROUP – BUSINESS AREAS	99
FIGURE 43: COMPETENCE MODEL IN THE CIECH GROUP	100
FIGURE 44: SHAREHOLDER STRUCTURE AS AT THE DATE OF APPROVAL OF THIS REPORT	103
FIGURE 45: CHANGES IN PRICES OF CIECH S.A.'S SHARES IN COMPARISON WITH CHANGES IN INDICES	105
FIGURE 46: PRICE OF CIECH S.A.'S SHARES AND TRADING VOLUME IN 2017	106
FIGURE 47: PRICE OF CIECH S.A.'S SHARES SINCE FIRST LISTING ON THE WSE	107

## 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]	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 (A)	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
CPC	Crop protection products
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>Adjusted EBITDA (%)</b>	EBITDA excluding one-off events, the more important of which were described in item 4.2.1 / 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>adjusted EBIT margin</b>	operating profit for a given period excluding one-off events, the more important of which were described in section 4.2.1 / net revenues from sales of products, services, goods and materials for a given period
<b>adjusted EBITDA margin</b>	EBITDA excluding one-off events, the more important of which were described in section 4.2.1 / 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 + liabilities from negative valuation of 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 + liabilities from negative valuation of derivatives calculated separately for each derivative + reverse factoring liabilities + factoring liabilities)



## REPRESENTATION OF THE MANAGEMENT BOARD

This Management Board Report on activities of the CIECH Group and CIECH S.A. in 2017 was approved by the Management Board of the Company at its registered office on 26 March 2018.

Warsaw, 26 March 2018

(Signed on the Polish original)

.....

**Maciej Tybura — President of the Management Board of CIECH Spółka Akcyjna**

(Signed on the Polish original)

.....

**Artur Król — Member of the Management Board of CIECH Spółka Akcyjna**

(Signed on the Polish original)

.....

**Artur Osuchowski — Member of the Management Board of CIECH Spółka Akcyjna**

(Signed on the Polish original)

.....

**Krzysztof Szlaga — Member of the Management Board of CIECH Spółka Akcyjna**