



Directors' Report  
on the operations of the Grupa Azoty Group  
for H1 2019

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## 1. General information on the Grupa Azoty Group

### 1.1. Organisation and structure

The Grupa Azoty Group is one of Central Europe's major chemical groups with a strong presence on the market of mineral fertilizers, engineering plastics, OXO products, and other chemicals.

Grupa Azoty has brought together companies with different traditions and complementary business profiles, seeking to leverage their potential to deliver a common strategy. This has led to the creation of Poland's largest chemical group and a major industry player in Europe. Thanks to its carefully designed structure, the Group offers a diverse product mix, ranging from nitrogen and compound fertilizers, engineering plastics, to OXO products and melamine.

As at June 30th 2019, the Grupa Azoty Group comprised Grupa Azoty S.A. (the Parent) and ten direct subsidiaries together with entities included in their respective groups.

#### Parent

Grupa Azoty S.A. is the Parent of the Grupa Azoty Group. Its principal business activities include manufacturing, trading in and service activities related to nitrogen fertilizers, engineering plastics and intermediates.

The Company operates its own research facilities. It concentrates both on research into new products and technologies, and on advancing existing products.

The Company's registered office is located at ul. Eugeniusza Kwiatkowskiego 8, Tarnów, Poland. Since April 22nd 2013, the Company has been trading under the name Grupa Azoty Spółka Akcyjna.

#### Parent's subsidiaries

##### Grupa Azoty Zakłady Azotowe Puławy S.A.

The company's registered office is located in Puławy. Since April 4th 2013, it has been trading under the name Grupa Azoty Zakłady Azotowe Puławy Spółka Akcyjna ("Grupa Azoty PUŁAWY").

Grupa Azoty PUŁAWY specialises in the manufacturing of nitrogen fertilizers and is one of the largest melamine manufacturers in the world.

##### Grupa Azoty Zakłady Chemiczne Police Spółka Akcyjna

The company's registered office is located in Police. Since June 3rd 2013, it has been trading under the name Grupa Azoty Zakłady Chemiczne Police Spółka Akcyjna ("Grupa Azoty POLICE").

Grupa Azoty Police is a major manufacturer of compound and nitrogen fertilizers, as well as titanium white.

##### Grupa Azoty Zakłady Azotowe Kędzierzyn Spółka Akcyjna

The company's registered office is located in Kędzierzyn-Koźle. Since January 11th 2013, it has been trading under the name Grupa Azoty Zakłady Azotowe Kędzierzyn Spółka Akcyjna ("Grupa Azoty KĘDZIERZYN").

The company's two business pillars are nitrogen fertilizers and OXO products (OXO alcohols and plasticizers).

##### Goat TopCo GmbH (currently COMPO EXPERT Holding GmbH)

The company's registered office is located in Münster, Germany.

The Company is a holding company for 21 subsidiaries, including the main operating company COMPO EXPERT GmbH, one of the world's largest manufacturers of speciality fertilizers for professional customers.

On August 6th 2019, the merger of Goat TopCo GmbH and COMPO EXPERT Holding GmbH (the "Acquirer") was registered, following which Goat TopCo GmbH was deleted from the register.

##### Grupa Azoty ATT Polymers GmbH

The company's registered office is located in Guben, Germany. Since July 10th 2013, it has been trading under the name Grupa Azoty ATT Polymers GmbH.

It manufactures polyamide 6 (PA6).

##### Grupa Azoty Polskie Konsorcjum Chemiczne Spółka z ograniczoną odpowiedzialnością

The company's registered office is located in Tarnów. Since February 28th 2013, it has been trading under the name Grupa Azoty Polskie Konsorcjum Chemiczne Spółka z ograniczoną odpowiedzialnością ("Grupa Azoty PKCh Sp. z o.o.").

Grupa Azoty PKCh Sp z o.o.'s services encompass comprehensive design support for investment projects in the chemical industry – from study and concept work to engineering design, building

permit design and working plans, to services provided during the construction, commissioning and operation of process units.

**Grupa Azoty Koltar Spółka z ograniczoną odpowiedzialnością**

The company's registered office is located in Tarnów. Since March 6th 2013, it has been trading under the name Grupa Azoty Koltar Spółka z ograniczoną odpowiedzialnością ("Grupa Azoty KOLTAR Sp. z o.o.").

Grupa Azoty KOLTAR Sp. z o.o. provides countrywide railway transport services. It is one of the few organisations in Poland to hold licences required to perform comprehensive repairs of rail car chassis and tank cars used in the transport of dangerous materials (according to RID).

**Grupa Azoty Kopalnie i Zakłady Chemiczne Siarki Siarkopol Spółka Akcyjna**

The company's registered office is located in Grzybów. Since February 11th 2014, it has been trading under the name Grupa Azoty Kopalnie i Zakłady Chemiczne Siarki Siarkopol Spółka Akcyjna ("Grupa Azoty SIARKOPOL").

Grupa Azoty SIARKOPOL is the largest producer of liquid sulfur in Poland.

**Grupa Azoty Compounding Spółka z ograniczoną odpowiedzialnością**

The company's registered office is located in Tarnów. Its business model is based on a portfolio of specialised engineering plastics manufactured through the compounding of plastics, with the use of innovative technological solutions.

**Grupa Azoty Folie Spółka z ograniczoną odpowiedzialnością**

The company's registered office is located in Tarnów.

Its principal business is research and development in technical science.

**Parent's equity interests in the subsidiaries as at June 30th 2019**

<i>(in relevant currency)</i>			
Company	Registered office/address	Share capital	Equity interest (%)
Goat TopCo GmbH	Krögerweg 10 48155, Münster, Germany	25,000 EUR	100.00
Grupa Azoty ATT Polymers GmbH	Forster Straße 72 03172 Guben, Germany	9,000,000 EUR	100.00
Grupa Azoty Compounding Sp. z o.o.	ul. Chemiczna 118 33-101 Tarnów, Poland	36,000,000 PLN	100.00
Grupa Azoty Folie Sp. z o.o.	ul. Chemiczna 118 33-101 Tarnów	5,500,000 PLN	100.00
Grupa Azoty SIARKOPOL	Grzybów, 28-200 Staszów	58,828,560 PLN	99.37
Grupa Azoty PUŁAWY	al. Tysiąclecia Państwa Polskiego 13 24-110 Puławy	191,150,000 PLN	95.98
Grupa Azoty KĘDZIERZYN	ul. Mostowa 30 A skr. poczt. 163 47-220 Kędzierzyn-Koźle	285,064,300 PLN	93.48
Grupa Azoty POLICE	ul. Kuźnicka 1 72-010 Police	750,000,000 PLN	66.00
Grupa Azoty PKCh Sp. z o.o.	ul. Kwiatkowskiego 7 33-101 Tarnów	85,630,550 PLN	63.27
Grupa Azoty KOLTAR Sp. z o.o.	ul. Kwiatkowskiego 8 33-101 Tarnów, Poland	54,600,000 PLN	60.00

## The Parent and its subsidiaries as at June 30th 2019



1	<b>Jednostka Dominująca</b>	2	Grupa Azoty PUŁAWY 95,98%	5	Grupa Azoty SIARKOPOL 99,37%	
	Grupa Azoty „Compounding” Sp. z o.o. 100%	3	Grupa Azoty POLICE 66%	6	Grupa Azoty ATT Polymers GmbH 100%	
	Grupa Azoty „Folie” Sp. z o.o. 100%	4	Grupa Azoty KĘDZIERZYN 93,48%	7	Goat TopCo GmbH 100%	
	Grupa Azoty KOLTAR Sp. z o.o. 60%					
	Grupa Azoty PKCh Sp. z o.o. 63,27%					

Source: Company data

## 1.2. Business segments

The Group is the largest chemical group in Poland and a significant player in Central Europe. It offers mineral fertilizers and B2B products, including engineering plastics, OXO products and melamine.

The Group's business is divided into the following segments:

- Agro Fertilizers,
- Plastics,
- Chemicals,
- Energy,
- Other Activities.

### Agro Fertilizers

Mineral fertilizers are the key area of the Group's business. The Agro Fertilizers segment manufactures nitrogen and compound fertilizers, as well as speciality fertilizers. As well as ammonia and other nitrogen-based intermediate products.

The segment's manufacturing activities are conducted by the companies in Tarnów (Parent), Puławy, Kędzierzyn, Police, Gdańsk, Chorzów, as well as Germany and Spain. The Group is Poland's largest and European Union's second largest manufacturer of mineral fertilizers.

### Plastics

The segment's key products are engineering plastics (polyamide 6 (PA6) and modified plastics) and auxiliary products, such as caprolactam and other chemicals.

They are manufactured by three companies – in Tarnów, Puławy, and Guben (Germany). The Group is the leading manufacturer of PA6 in Poland and the third largest producer of this polyamide in the European Union.

### Chemicals

The Chemicals segment is an important part of the Group's business, comprising OXO alcohols, plasticizers, melamine, technical grade urea, titanium white, sulfur, AdBlue<sup>®</sup>, and other products.

They are manufactured in Kędzierzyn, Puławy, Police, and Grzybów. The Group is a major manufacturer of melamine globally and the third largest in the European Union. As regards OXO products, the Group is the only manufacturer of OXO alcohols in Poland and the fifth largest in the European Union. The Group is Poland's only producer of titanium white.

### Energy

Electricity and heat produced by the Energy segment are sold locally, to customers in the immediate vicinity of the Group's plants.

The segment's key customers are companies of the Group. Outside the Group, the segment's products are sold on the electricity and hot water markets to local customers. The Group companies operate their own electricity and energy carrier distribution networks.

### Other Activities

The Other Activities segment comprises auxiliary and support services. As in the case of the Energy segment, its services are mainly rendered for the Group companies. Outside the Group, the segment mainly provides maintenance (automation, design, repair, etc.) and logistics services (road transport, rail transport, ports), and conducts manufacturing at the Catalyst Production Plant. The segment is also involved in various operations in such areas as environmental protection, administration, research, and infrastructure management.

### 1.3. Overview of key products

#### AGRO FERTILIZERS

The Group classifies **mineral fertilizers** as nitrogen (single-nutrient) fertilizers and compound fertilizers, the latter including at least two of the following key nutrients: nitrogen (N), phosphorus (P) or potassium (K), as well as speciality fertilizers.

##### Nitrogen fertilizers

Nitrogen fertilizers are substances or mixtures of substances where nitrogen is the primary plant nutrient. The Group's product range includes a number of nitrogen fertilizers: urea, nitrate fertilizers (including ammonium nitrate, calcium ammonium nitrate, UAN), nitrogen-sulfur fertilizers (made as a result of mixing fertilizers in the manufacturing process: ammonium sulfate nitrate, solid and liquid mixtures of urea and ammonium sulfate, and ammonium sulfate). Natural gas is the key feedstock for nitrogen fertilizers production.

**Urea** – a nitrogen fertilizer containing 46% nitrogen; it is produced in Puławy (PULREA®), Police (moczni.pl®), and Kędzierzyn. Urea is a universal fertilizer - it can be used for all crops at various growth stages, both in the granular form and as a solution.

Outside agriculture, urea is used for technical purposes, mainly for manufacturing of adhesive resins, which find application in the chipboard industry. Urea may also be further processed into urea-ammonium nitrate solution (UAN – RSM®), a liquid fertilizer, or into melamine.

##### Nitrate fertilizers

- Ammonium nitrate is a nitrogen fertilizer which is easily dissolved in water, Containing between 30% and 34% nitrogen. The Group offers this product in a wide variety of granule forms and sizes, such as mechanically granulated ZAKsan®, with excellent sowing properties; the PULAN® beaded ammonium nitrate, and '30 makro' ammonium nitrate.
- Calcium ammonium nitrate (CAN) is a nitrogen fertilizer with a nitrogen content of up to 28%. It is a universal fertilizer, suitable for all types of soil, well soluble and easily absorbed by crops. The Group markets CAN in a number of granule varieties; the offering includes the granulated Salmag® fertilizers (including varieties with a sulfur or boron content), and bead fertilizers such as Saletrzak 27 (CAN 27) standard and Saletrzak 27 with boron.
- Urea-ammonium nitrate solution (UAN - RSM®) is a liquid nitrogen fertilizer coming in three varieties: with 32%, 30% and 28% nitrogen content. Thanks to its form, UAN-RSM® is easily absorbed by plants. It is also produced with an admixture of sulfur, as UAN-RSM®S.

##### Nitrogen-sulfur fertilizers

These fertilizers improve sulfur content in the soil, enhance arable crops' ability to absorb nitrogen, and thus increase the quality and volume of crops.

- PULGRAN®S - urea-ammonium sulfate, is a nitrogen fertilizer with sulfur in the form of white hemispherical pastilles, obtained by blending urea and ammonium sulfate. It is manufactured in two varieties with various contents: 37% nitrogen/21% sulfur and 33% nitrogen/31% sulfur.
- Saletrosan®, or ammonium sulfate nitrate, is a nitrogen fertilizer with sulfur, obtained by blending ammonium nitrate and ammonium sulfate. Saletrosan® 26 contains 26% nitrogen and 13% sulfur. The fertilizer is also marketed under the trade name Saletrosan® 30, with different proportions of nitrogen and sulfur (30% and 6%).
- Polifoska® 21 is a nitrogen fertilizer with sulfur; it is an ammonium sulfate-urea mix, containing 21% nitrogen and 33% sulfur.
- Ammonium sulfate, marketed under the trade names AS 21 and Pulsar®, is a simple nitrogen fertilizer with sulfur, containing 21% nitrogen and 24% sulfur. It is a by-product in the manufacture of caprolactam and in flue gas desulfurisation. The Group manufactures a wide range of ammonium sulfate in various granule forms and sizes: selection, macro, standard, and crystalline.
- PULASKA® is a liquid nitrogen fertilizer with sulfur, obtained by blending urea and ammonium sulfate, and has a 20% nitrogen and a 6% sulfur content.

##### Compound fertilizers (NPK, NP)

NPK and NP compound fertilizers are universal fertilizers which, depending on composition, can be applied to various types of crops and soil. Aside from the primary components – nitrogen (N),

phosphorous (P) and potassium (K), these fertilizers contain secondary nutrients such as magnesium, sulfur or calcium, and may contain microelements such as boron or zinc.

Compound fertilizers may be used to provide nutrients to all types of arable crops. The Group's current offering includes more than 40 grades of compound fertilizers, which are marketed under the following trade names: Polifoska®, Polidap®, Polimag® Superfosfat, Amofoska®, etc. The Group also offers dedicated fertilizers, custom-made to satisfy customers' specific requirements.

### Speciality fertilizers

Speciality fertilizers are designed to meet the specific requirements of various sectors, including fruit and vegetable growing, horticulture or maintenance of green areas. In addition to the primary components – nitrogen (N), phosphorous (P) and potassium (K), such fertilizers also contain secondary nutrients and microelements. They may also contain inhibitors that reduce nutrient leaching.

Available in solid (coated or uncoated) or in liquid form, this product range also includes fertigation and foliar fertilizers.

Currently, they are marketed under a number of trade names, including Blaukorn®, NovaTec®, Hakaphos®, Basfoliar®, Easygreen®, DuraTec®, Basacote® and Floranid®<sup>Twin</sup>.

**Ammonia** – feedstock for the manufacture of fertilizers, produced in a process of direct synthesis of nitrogen and hydrogen. Ammonia is the basic intermediate product used to manufacture nitrogen fertilizers and compound fertilizers. It is also used in the chemical industry, e.g. for the manufacturing of caprolactam or polymers, or as a cooling agent. Natural gas is the key feedstock for the production of ammonia.

## PLASTICS

### Engineering plastics

Engineering plastics exhibit high thermal resistance and good mechanical properties. The wide range of the plastics' beneficial properties makes them a product of choice for many industries, including automotive, construction, electrical engineering, household appliances, and the food and textile industries.

The Group manufactures polyamide 6 (PA6) and modified plastics (with admixtures affecting the physical and chemical properties of the final plastics) based on polyamide 6 and other engineering plastics (POM, PP, PBT, PA6.6). It also offers modified plastics, custom-made to meet the requirements of individual customers.

**Polyamide 6 (PA6)** is a high-quality thermoplastic in granular form used for injection processing. It is the leading product among engineering plastics. The Group's very popular brands in this segment are Tarnamid® and Alphalon®.

### Caprolactam

Caprolactam is an organic chemical compound and an intermediate product used for the manufacture of polyamide 6 (PA6). It is produced mainly from benzene and phenol. Synthesis of caprolactam yields ammonium sulfate as a by-product.

## CHEMICALS

### OXO products

#### OXO alcohols

The Group makes the following OXO alcohols: 2-ethylhexanol (2-EH) and butanols (n-butanol, isobutanol). The key product in this group is 2-EH.

**2-ethylhexanol (2-EH)** is used in the manufacture of plasticizers, paints and varnishes as well as in the textile industry and oil refining processes. It can also be applied as a solvent for vegetable oils, animal fats, resins, waxes and petrochemicals.

## Plasticizers

The Group manufactures the following plasticizers:

- DEHT/DOTP - a plasticizer used in the chemical industry to increase the plasticity of materials, mainly PVC, and as an additive to paints and varnishes. The Group's DEHT/DOTP is marketed under the Oxoviflex® brand. It is used in plastics processing as a non-phthalic plasticizer as well as in the manufacture of paints and varnishes. It is also widely applied for the production of floor tiles and wall cladding as well as toys for children.
- DBTP/DBT - a plasticizer characterised by quick plastification of polymers and low migration, giving higher flexibility to finished products. Due to these properties, DBTP/DBT is used in the production of PVC flooring as a functional plasticizer in combination with Oxoviflex®, as well as in the production of adhesives, seals, and inks. The Group's DBTP/DBT is marketed under the Oxovilen® brand.
- DEHA/DOA - a high quality bis(2-ethylhexyl) adipate which is recommended for the manufacture of food contact materials (particularly PVC food wrapping film) due to its very good plastifying properties and the fact that it maintains its properties in low-temperature applications and has a safe toxicological profile. The Group markets its DEHA/DOA under the Adoflex® brand. The product is also used in the manufacture of garden hoses, cables and coated fabrics. Depending on the application, it may be used as the main plasticizer or a functional plasticizer in combination with Oxoviflex®. Besides its application in PCV processing, Adoflex® is also recommended as a solvent for the cosmetics industry, for use in nitrocellulose and synthetic rubber plasticisation, and in the manufacturing of lacquers.

## Sulfur

The product offered by Grupa Azoty is mined sulfur. Sulfur is mainly used to produce sulfuric acid, which is widely used in the chemical industry, for instance to produce DAP, a two-component fertilizer. The product is offered in various forms. For the Group's own needs, sulfur is also purchased from other suppliers who obtain it as a by-product from flue gas desulfurisation or crude oil refining.

## Melamine

It is a non-toxic, non-flammable product in the form of a white powder, used for the production of synthetic resins, thermosetting plastics, adhesives, paints, varnishes (including furnace varnishes), auxiliary materials for the textile industry, fire retardants, and other.

## SOURCES OF STRATEGIC RAW MATERIALS

For the most part, the Group procures its raw materials, merchandise and services on the domestic and EU markets. Certain raw materials (phosphate rock, slag, potassium chloride) are purchased from non-EU suppliers. Raw materials supplied by the Group companies, i.e. ammonia and to some extent sulfur, account for a significant share of the total raw materials procured by the Group.

### Ammonia

The procurement strategy is based primarily on the optimisation of intragroup supplies. Intragroup supplies are transacted on arm's length terms. The Group is the largest manufacturer of ammonia in Poland and a significant manufacturer of the product in the CEE region, operating several ammonia units. It is also one of the largest consumers of ammonia in the region.

Having satisfied its own needs, the Group sells a surplus on the market. The Group's ability to effectively secure ammonia supplies largely depends on conditions prevailing on the fertilizer market and in the natural gas sector.

### Benzene

Benzene is mainly delivered under one-year contracts, with supplementary purchases made on the spot market. Benzene is sourced chiefly from domestic and CEE suppliers. The benzene market is largely driven by the situation on the crude oil market and the demand-supply balance on global markets, particularly the level of demand for benzene outside Europe.

### Electricity

The Group purchases electricity from major Polish suppliers trading with large accounts. Following a number of tenders for 2019, the Group companies signed electricity supply contracts under their existing framework agreements. Thanks to the joint procurement strategy for electricity supplies, they secured competitive prices and favourable terms of the contracts. Given the volatility of the electricity market and its changing legal framework, the Group's policy is to purchase electricity

under forward contracts concluded for various periods and on the SPOT market, including on the Polish Power Exchange.

#### **Phenol**

The procurement strategy is based primarily on supplies from the domestic and the EU markets, with deliveries from outside Europe covering deficit. The Group secures phenol supplies for its own needs under long-term contracts concluded directly with Europe's largest producers.

#### **Phosphate rock**

Phosphate rock is purchased under term contracts, chiefly from North African producers, given the mineral's abundance in the region and the well-developed local sea logistics infrastructure. The situation on the phosphorite market is to a large extent driven by the situation in the fertilizers sector. The Group has in place a joint phosphate rock purchase programme for Grupa Azoty POLICE and GZNF Fosfory Sp. z o.o.

#### **Natural gas**

High-methane gas and gas from local sources was supplied by PGNiG S.A. under long-term contracts. Any additionally required volumes were bought by the Group at the Polish Power Exchange.

#### **Propylene**

The bulk of the Group's purchases of propylene are made under annual contracts, with supplementary purchases made on the spot market. To a large extent, propylene prices are driven by oil prices. The Group pursues a diversified procurement strategy, based chiefly on supplies from the EU and countries east of Poland. Supplies from the latter largely reduce the overall cost of propylene procurement.

#### **Sulfur**

The Group is the largest producer and consumer of liquid sulfur on the domestic market and in the region. Its sulfur procurement strategy is based on optimising intragroup supplies (from Grupa Azoty SIARKOPOL) and on supplies from the petrochemical sector. This approach gives the Group considerable procurement flexibility, and significantly reduces the risk of supply shortages. The Group also has the largest logistics facilities in Poland, which is a source of additional competitive advantage. With a centralised sulfur procurement strategy in place (a joint purchase programme for the entire Group), the Group is able to aggregate the supply volumes and reduce the cost of this raw material.

#### **Potassium chloride**

With substantial natural resources and competitive commercial terms, producers from the Commonwealth of Independent States (Russia, Belarus) are the primary suppliers of potassium chloride. The Group's procurement strategy is chiefly based on quarterly framework agreements, with supplementary deliveries sourced from Western Europe. The Group pursues a centralised procurement strategy by making joint purchases for Grupa Azoty POLICE and GZNF Fosfory Sp. z o.o.

#### **Coal**

The Group purchases coal mainly on the domestic market. Purchasing large volumes of coal of the required quality from geographically remote markets is not economically viable given the transport costs and price formulae (ARA).

On the domestic market, prices of pulverised coal used in power generation are not directly linked to ARA rates, which only serve as pricing benchmarks for Polish coal producers.

Since 2018, the Group companies follow a strategy of purchasing coal under multi-year contracts with a guaranteed price change range. Such long-term contracts cover over 80% of the Group's needs for coal supplies.

## 2. Financial position of the Group

### 2.1. Assessment of factors and one-off events having a material impact on the Group's operations and financial performance

#### Extended shutdown of ammonia and urea units

During the standard annual maintenance shutdown at the Nitro Business Unit, which took place between April 4th and June 11th 2019, a defect in the boilers of the synthesis gas unit at Grupa Azoty POLICE was discovered. As a consequence, the ammonia synthesis unit and the urea synthesis unit were temporarily shut down.

The event had no negative consequences for the environment.

The financial effect of the temporary shutdown of the units (lost profits) is estimated at PLN 53.7m on the consolidated basis (including PLN 7.1m in the period under review). The amounts presented above are estimates and are subject to change. Lost profits are primarily attributable to lost margins on sales of nitrogen products, including urea, urea solutions and ammonia, which would have been in all likelihood realised if the units had been operating. The loss estimate is also based on the fact that the unscheduled extension of maintenance shutdowns occurred during a period of relatively low gas prices and favourable conditions on the urea market, increasing the potential for achieving relatively high margins.

In the second half of August, one ammonia line and the urea unit were launched. Originally, the urea unit was scheduled to be placed in service just after the first 10 days of June. In previous years, the units were shut down for annual maintenance in Q3.

#### Impairment loss recognised by Zakłady Azotowe Chorzów S.A., subsidiary of Grupa Azoty PUŁAWY

On August 27th 2019, the Management Board of Zakłady Azotowe Chorzów S.A. passed a resolution to recognise a PLN 7.8m impairment loss on the company's fat processing unit.

In accordance with IAS 36, the Company's Management Board analysed indications of impairment of the assets allocated to the cash generating unit "Other Activities", following which the Company made a formal estimate of their recoverable amount by determining their value in use.

The financial forecasts adopted by the Company's Management Board for the period covered by the impairment test performed for the cash generating unit "Other Activities" were prepared based on the assumption of a moderate, conservative increase in the Company's revenue in the following years. The revised forecasts showed a lower than assumed as at December 31st 2018 potential for the Company to generate revenue from sales of NPK blends in the coming years, and the expected margin on sales of the Company's main fertilizer products, i.e. potassium nitrate and calcium nitrate, was revised down.

The effect of the event whose consequences were taken into account in the Grupa Azoty Group's financial statements for H1 2019 is as follows:

- the effect on consolidated EBIT of the Grupa Azoty Group was PLN (22m),
- the effect on consolidated net profit of the Grupa Azoty Group was PLN (19m).

For information on the effect of the recognised impairment loss, see Note 10 to the interim condensed consolidated financial statements. for the six months ended June 30th 2019.

#### Exchange rates

The factors and events with a bearing on the Grupa Azoty Group's financial performance in H1 2019 included the continued strong growth of domestic GDP (coupled with low unemployment), growing household incomes and good condition of public finances, maintained despite the economic slowdown in the eurozone, uncertainties as to Brexit scenarios, and the trade disputes between the US and China.

The positive domestic fundamentals contributed to a very stable PLN/EUR exchange rate, with a limited trend towards the strengthening of the zloty, accompanied by volatility in the PLN/USD exchange rate, driven by the EUR/USD exchange rate.

Throughout H1 2019, the zloty gained approximately 2.7% against the euro and about 1.1% against the US dollar compared with December 31st 2018. In H1 2019, the average PLN/EUR exchange rate was slightly higher (by approximately 0.2%) relative to H2 2018, while in the same period the average PLN/USD exchange rate fell by approximately 1.77%.

Thus, the Polish currency slightly appreciated against the euro (both in terms of the average and end-of-period rates), and slightly weakened against the US dollar in terms of the average exchange rates and appreciated in terms of the end-of-period rates. All in all, these changes had no material effect on the Group's results for the period.

The Group monitors its current and planned net currency exposures and manages the resulting currency risk by applying selected hedging instruments. In the reporting period, the main hedging tools used by the Group included natural hedging; factoring and discounting of receivables denominated in foreign currencies; and currency forwards entered into on a rolling basis to cover up to 80% of the remaining currency exposure with time horizons of less than 6 months, and up to 50% of the remaining currency exposure with time horizons between 6 and 12 months.

In the first half of 2019, some more of the Parent's subsidiaries trading in the euro acceded to the agreement with PKO BP under which the bank provides the Group with a euro physical cash pooling service. The physical cash pooling in the euro allows the Group companies to use the Group's global liquidity limit in that currency, which further reduces their exposure to the currency risk in the euro by correcting potential mismatches in revenue and expenditure over time.

In H1 2019, the Grupa Azoty Group's hedging tools were EUR and USD forward swaps, executed in the periods of depreciation of the Polish zloty to supplement forward hedges for EUR and USD sale, and in addition, the Group purchased a single put option to hedge USD sale, reflecting its planned net exposure in both currencies.

The Group's net result on hedging transactions settled in H1 2019 was a gain of PLN 1,671 thousand, with the net result on remeasurement of hedging instruments also positive at PLN 1,579 thousand.

In the first half of 2019, the Group's overall net result on the settlement of hedging transactions and remeasurement of hedging instruments was a gain of PLN 3,250 thousand.

Since September 28th 2015, the Group has applied cash flow hedge accounting. The hedged items are highly probable future proceeds from sale transactions in the euro, which will be recognised in profit or loss in the period from December 2018 to June 2025.

The hedging covers currency risk. The hedge consists of two EUR credit facilities contracted with the European Investment Bank:

- a facility with a value of EUR 118,053 thousand as at June 30th 2019, repayable from December 2018 to June 2025 in 14 equal half-yearly instalments of EUR 9,081 thousand each, whose fair value recognised at June 30th 2019 was PLN 508,216 thousand (the hedging reserve as at March 31st 2019 included PLN 8,089 thousand on account of the effective hedge),
- a facility with a value of EUR 50,000 thousand as at March 31st 2019, repayable from March 2021 to September 2028 in 15 equal half-yearly instalments of EUR 3,333 thousand each, whose fair value recognised at June 30th 2019 was PLN 213,100 thousand (the hedging reserve as at June 30th 2019 included PLN 2,275 thousand on account of the effective hedge).

In H1 2019, the Group did not reclassify any hedge accounting amounts from other comprehensive income to the statement of profit or loss.

#### **Prices of CO<sub>2</sub> emission allowances**

In the first half of 2019, the prices of CO<sub>2</sub> emission allowances (EUA) ranged between EUR 19 and EUR 28. The market is still strongly volatile and there is a risk of further price increases as the long-term upward trend continues. The exchange market became even more unpredictable following the inclusion, under MiFID II (Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments), of greenhouse gas emission allowances into the category of financial instruments. This makes the management of price risk related to emissions allowances more difficult. The Group purchases emission allowances in line with the joint management model for CO<sub>2</sub> emission allowances adopted by the Group, under an approved procurement plan. The Grupa Azoty Group pursues a policy of a rolling reduction of its deficit in CO<sub>2</sub> emission allowances through spot and futures transactions with a three-year time horizon.

In H1 2019, the Group also took measures to adapt to the changed situation and mitigate negative financial effects of the higher prices of CO<sub>2</sub> emission allowances by entering into futures contracts for the allowances during temporary price declines typical of high market volatility.

## 2.2. Market overview

### AGRO FERTILIZERS

#### Economic conditions in agriculture

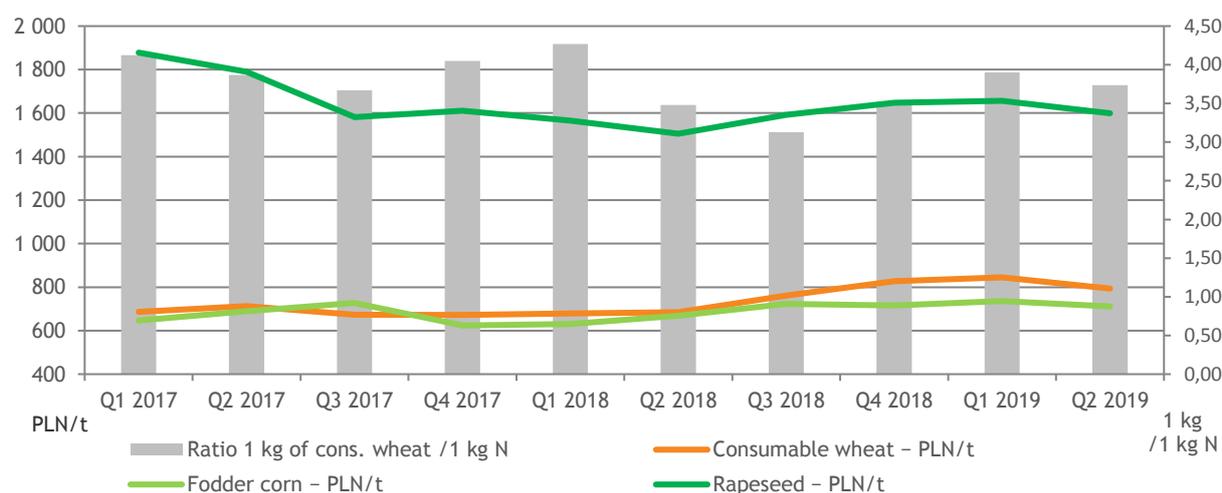
In H1 2019, the prices of main agricultural produce were higher year on year. The most substantial price increase was estimated for wheat: in the period under review its price oscillated around PLN 820 per tonne, up 20.2% year on year. Price increases were also recorded for maize (up 11.4%, to PLN 724/t) and rapeseed (up 6%, to PLN 1,536/t).

In the period under review, the economic situation of the Polish agricultural sector continued to be viewed as relatively poor, mainly on account of losses caused by last year's drought, which were not fully compensated by the year-on-year rises in agricultural produce prices. The transfer of direct payments, completed at the end of June 2019 (in the period from October 2018 and June 2019, the Polish agricultural sector received PLN 14.8bn), did not materially improve the situation, either.

The condition of the crops in the first half of the year depended on the prevailing weather conditions. While in the first half of the analysed period optimal weather conditions stimulated plant growth, the situation deteriorated further into the year as rainfall was low. The worst situation was in May and June, when agricultural drought was identified in the territory of Poland based on data from the Institute of Soil Science and Plant Cultivation. The drought is the key factor behind weaker harvest forecast for this year, which may further worsen the economic aspects of agricultural production in the 2019/2020 season.

According to the European Commission, in 2019 total grain yields in Poland are estimated at 30.04 million tonnes. Based on Stratégie Grains data (as at July 11th 2019), no aggregate forecasts of grain yields in Poland in the current season have been released to date. Although the weather conditions have been unfavourable so far, the initial estimates are quite optimistic. As regards the main crops, wheat, maize and barley yields are estimated at, respectively, 10.89m tonnes (+10.9% yoy), 4.34m tonnes (+5.9% yoy), and 3.41m tonnes (+11.8% yoy). According to Statistics Poland (GUS), the previous year's production in Poland totalled 26.8m tonnes, down 16% on 2017. According to Stratégie Grains data, an increase in total grain production in the current season is also expected for the entire European Union. Current forecasts for the EU suggest a production volume of 304.9m tonnes (an 8.7% increase on the previous season).

#### Prices of wheat, maize and rapeseed



Source: Ministry of Agriculture and Rural Development.

#### Average prices of wheat, maize and rape seed

	Average H1 2018	Average H1 2019	y/y	6-2019	MIN 2019	MAX 2019
	PLN/t	PLN/t	%	PLN/t	PLN/t	PLN/t
Consumable wheat	682	820	20.2	773	773	856
Maize	650	724	11.4	700	700	740
Rapeseed	1,536	1,628	6.0	1,586	1,586	1,664

Source: Ministry of Agriculture and Rural Development.

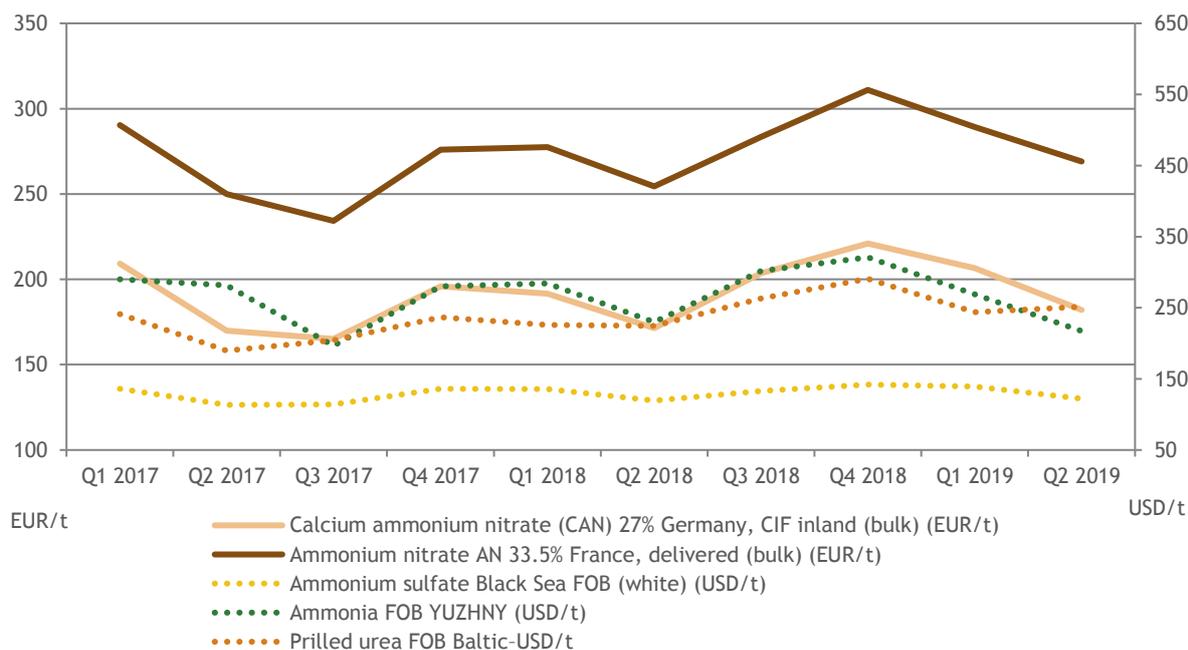
#### Nitrogen fertilizers

The prices of nitrate fertilizers on the markets under review remained relatively stable, with a slight downward trend. In the first half of 2019, the average price of CAN in Germany was EUR 194/tonne (CIF Inland), up 7% year on year. The average price of AN for the quarter in France (delivered, bulk) rose by 5%, to EUR 279/t, year on year.

Given the deteriorating economic condition of the Polish agricultural sector, prevailing weather conditions, delaying purchases in anticipation of lower prices, and high availability of nitrate fertilizers, the demand for nitrate fertilizers in H1 2019 reflected current demand. The provisions of the nitrate application programme, effective in 2019, which permit the application of fertilizers containing nitrogen and affect the distribution of demand in the period under review, also played an important role here. A similar distribution of demand was seen in the European Union, where a moderately higher demand for nitrate fertilizers was particularly observed in the periods immediately preceding the application of further nitrogen doses. The demand for nitrate fertilizers later in the year (especially for the autumn application season) is expected to depend mainly on this year's yields and the price-adjustment policies of key market players.

The average prices of urea in H1 2019 were 10% higher than in the same period last year. Despite being higher throughout the period under review, urea prices were in a downward trend due to the global slowdown. The situation was made even worse by the significant oversupply of urea in some parts of the world, with demand down and limited purchases made in anticipation of a sharper decline in prices. The two increases in India's demand for urea which, according to reports, was partially satisfied with Chinese urea, helped stabilise the price of the product. It is expected that India's higher demand for urea will balance demand and supply on the market in Q3 2019. Additionally, in August the urea market is expected to be slightly undersupplied and urea prices are likely to stabilise.

### Prices of nitrogen fertilizers (urea, CAN, AN, AS,) and ammonia



Source: ICIS, Argus FMB, Profercy.

### Average prices of nitrogen fertilizers

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	EUR/t	EUR/t	%	EUR/t	EUR/t	EUR/t
CAN 27% Germany CIF inland (bulk)	182	194	7.0	189	178	219
AN 33.5% France, delivered (bulk)	266	279	5.0	270	263	308
	USD/t	USD/t	%	USD/t	USD/t	USD/t
Ammonia (FOB Yuzhny)	257	243	5.5↓	198	198	276
Urea (FOB Baltic)	225	248	10.0	266	229	266
AS (Black Sea FOB white)	128	131	2.5	125	119	145

Source: ICIS, Argus FMB, Profercy.

Ammonia prices continued on a downward trend in the period under review. Year on year, the prices declined 5% on the back of a sustained global slowdown in this segment and oversupply of ammonia on the market. The situation changed in June when the oversupply decreased due to production constraints caused by maintenance shutdowns.

The launch of a new ammonia plant in Eastern Europe, with an annual production capacity of 1 million tonnes, was important from the market point of view. Other plants are planned to be built in the region, which would increase the ammonia, urea and methanol production capacities by, respectively, 1 million tonnes, 1.2 million tonnes and 1.7 million tonnes per year. A final decision in this respect is expected to be made by the end of the year.

Demand and supply forecasts for Q3 2019 show a relative balance in the market, with a potential decline in supply, which should slightly push up the prices during that period. The ammonia market is expected to be significantly oversupplied again in Q4 2019, which may reduce the price of the product at the end of the year.

## Market of compound fertilizers

Demand for NPK fertilizers from Polish importers was very weak throughout almost the entire first half of the year. At the beginning of the period, they still had stocks of NPK fertilizers remaining after the autumn season, and demand started to pick up as late as at the end of Q2 2019.

In the initial weeks of the first quarter, demand in many European countries was still poor. The second quarter marked the beginning of the season for NPK fertilizers in the UK and Ukraine. Despite this, the average FOB Baltic prices in H1 2019 increased 5.4% year on year.

The launch of a new production plant in Russia, expected to increase the output of mineral fertilizers to 840,000 tonnes per year, was a major development from the market perspective. In Brazil, three phosphate rock mines owned by an American manufacturer of phosphate fertilizers were shut down due to an overhaul carried out to meet safety certification requirements. The overhaul took place in the second quarter of 2019. In order to meet the market's needs during the downtime, the producer conducted manufacturing operations using imported feedstocks.

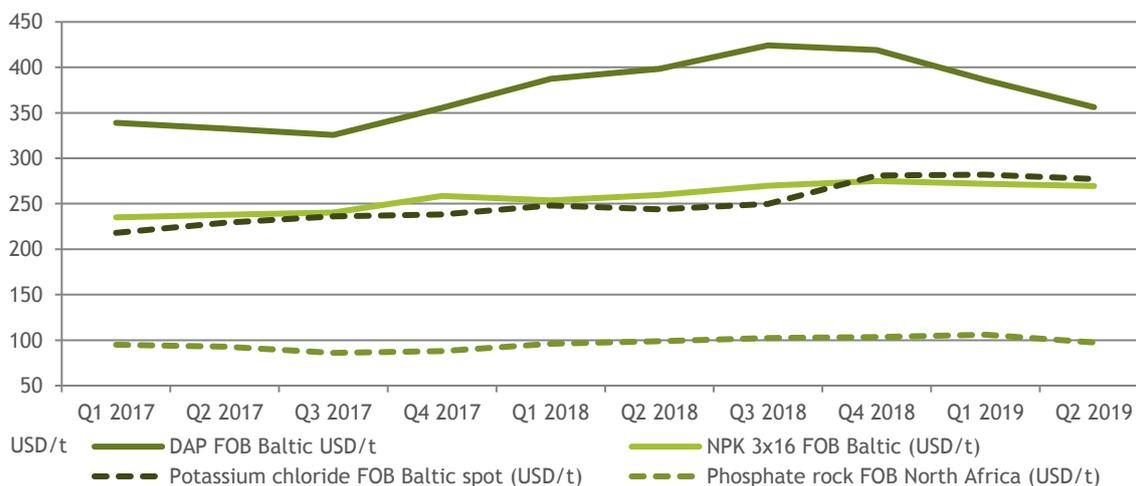
The embargo imposed on Russian fertilizers may completely change the market in the Baltic Sea region.

Demand for DAP in Poland was weak in H1 2019. The average FOB Baltic prices of DAP were USD 371/tonne, down by 5.5% on the previous year.

In the first six months of 2019, DAP prices in Europe followed a downward trend. At the same time, large volumes of DAP were exported from Russia to Brazil, Argentina and the Balkans. Some volumes were exported to the US, but considerable stocks and bad weather weakened the demand compared with the corresponding period a year earlier. Global oversupply pushed the prices down. Fertilizers of both Russian as well as Moroccan and Arab origin were supplied in large quantities to Latin America. A Saudi Arabian manufacturer signed a contract for the supply of 5 million tonnes of various phosphate fertilizers to India over the next five years and substantial volumes had already been shipped at the end of Q2. Arab manufacturers have also delivered considerable volumes of fertilizers to Australia, Brazil, Argentina, Kenya and Mauritius. Following official merger of two Chinese production plants, a company with a production capacity of up to 10 million tonnes of DAP/MAP/NPK and phosphoric acid was established.

Sentiment on the phosphate fertilizer markets of Western Europe is positive as opposed to the east of the continent, which remains under higher price pressures. The warehouses are overstocked now, and the demand for fertilizers is weak. Analysts expect prices of both DAP (Morocco, China, USA) and MAP (Europe, Brazil) to fall in the next couple of months.

## Prices of compound fertilizers (NPK, DAP), potassium chloride and phosphate rock



Source: WFM, FERTECON, Profercy.

### Average prices of compound fertilizers and raw materials for their production

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	USD/t	USD/t	%	USD/t	USD/t	USD/t
DAP (FOB Baltic)	393	371	5.6↓	348	348	402
NPK3x16 (FOB Baltic)	257	271	5.4	265	265	275
Potassium chloride (FOB Baltic spot)	246	280	13.8	277	276	285
Phosphate rock (FOB North Africa)	97	101	4.1	81	81	106

Source: ICIS, Argus FMB, Profercy.

Lower demand for MAP and DAP fertilizers also affected the prices of raw materials, halting a further increase in phosphate rock and phosphoric acid prices. Year on year, the average prices of phosphate rock and phosphoric acid in H1 2019 rose by approximately 4% and 9.5%, respectively. However, it should be noted that at the end of H1 2019 the price of phosphoric acid in Europe fell by almost 10% compared with December 2018. The price of phosphoric acid supplied to India has dropped even further, by 15% since the beginning of 2019.

According to short-term forecasts, phosphate rock prices are expected to decline and then stabilise towards the end of Q2 2020. Phosphate rock is one of those feedstocks for production of NPK fertilizers whose prices have stayed flat for the last three quarters. This, however, should not be directly linked to falling prices of phosphoric acid in H1 2019. Analysts stressed that in the recent quarters there was too big a gap between the prices of phosphate rock and phosphoric acid and therefore, for example in India, those manufacturers of phosphate fertilizers who rely directly on phosphoric acid had to reduce or halt the production of DAP as it was unprofitable. Following price reductions in H1 2019, the prices of phosphoric acid are expected to stabilise further into the year.

In H1 2019, the average price of potassium chloride was approximately 14% higher than in the same period of 2018. By and large, the potassium chloride market was stable in the first six months of 2019, particularly in China. Given the large stocks of potassium chloride accumulated in ports and weak demand from farmers, China is rather unlikely to negotiate new contracts for the financial year 2019/2020 in the usual period, i.e. until the end of summer holiday. Demand for potassium chloride was also lower in the US, chiefly on account of unfavourable weather conditions in many parts of the country, which postponed the beginning of the sowing season and reduced fertilizer application.

Despite additional production capacities launched in 2019, buyers are not expected to benefit from any significant surge in supply. According to forecasts for H2 2019, prices of potassium chloride should remain stable and demand will be supported by further imports from Brazil. India has started preliminary talks with the suppliers of potassium chloride concerning contracts for the 2019/2020 financial year. The first signs indicate that the prices from last year's contracts may be rolled over. Given the weaker demand, China will postpone the final settlement of the 2018/2019 contracts probably until the end of 2019. What would allow manufacturers of potassium chloride to maintain the price at current levels is a supply cut, and such message has been sent to the market by the largest potassium chloride manufacturer.

## PLASTICS

### Polyamide 6 chain

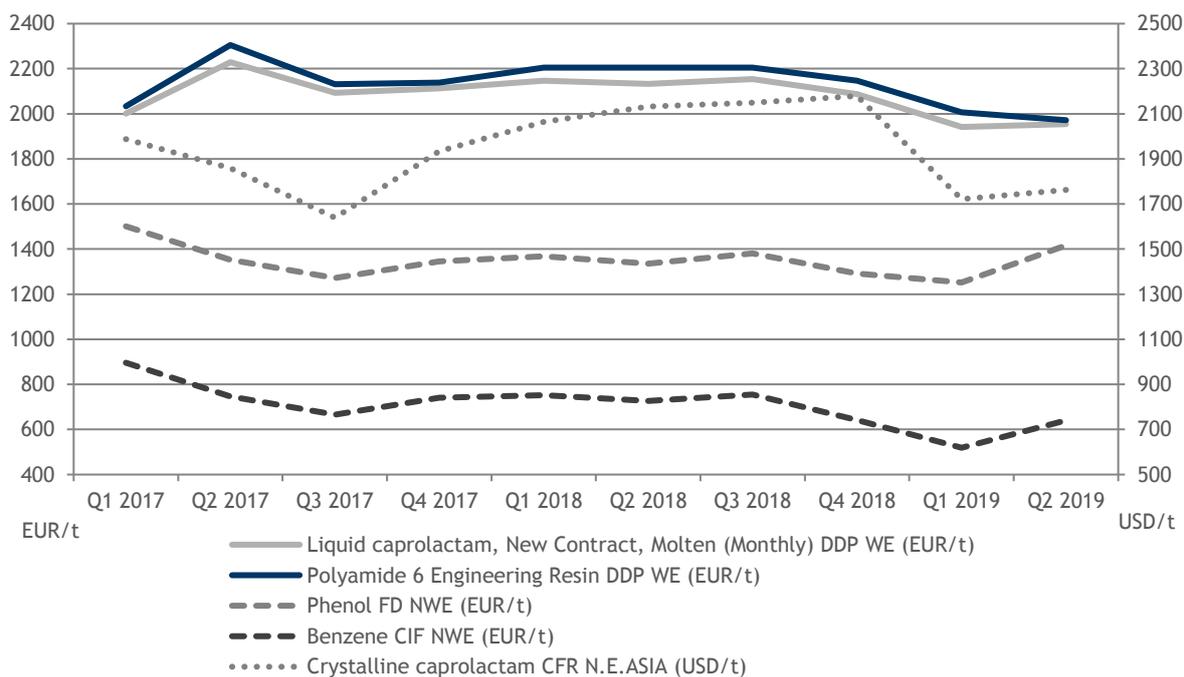
In H1 2019, the market situation for the entire segment continued to be shaped by supply and demand forces on end-use markets and, to a lesser extent, by volatility in crude oil prices.

Rising prices of petrochemical feedstocks in Europe in the period February-May 2019 were driven not only by the prices of crude oil, but also by the balance of supply and demand on global markets, mainly in the US. Despite a growth trend, in the first half of the year the average prices of benzene and phenol were down year on year by almost 22% (EUR 580/t, CIF NWE) and by more than 1% (EUR 1,334/t, FD NWE), respectively.

Despite expectations that the prices of caprolactam and polyamide 6 (and other polyamide chain products) would be closely correlated with benzene prices, their fluctuations were in fact balanced out or offset by the prevailing market situation, generally characterised by low demand. In the first half of 2019, the average price of caprolactam in Europe was 9% lower (EUR 1,948 per tonne, Liq. DDP WE) year on year. In the same period, the average price of caprolactam on the Asian market fell by

9% (USD 1,742/t CFR, NE Asia). In the first half of 2019, the average price of polyamide 6 stood at EUR 1,989/t (PA6, Engineering Resin Virgin, DDP, WE), having declined by almost 10% year on year. In the first six months of 2019, the European polyamide market was oversupplied, prompting some manufacturers to reduce their operating rates. The demand from the polyamide 6 processing sectors (including textile, food packaging and electrotechnical and electronic industries) was weak but stable. Particularly low consumption was recorded in the automotive sector, which continued to have a domino effect on the supply chain. Global chemical markets were adversely affected by lower sales in the automotive sector. Car sales were down in all main regions of the world, which had a domino effect on demand for chemicals and the entire value chain. Decelerating economic growth in many countries and escalation of trade war between the United States and China have an impact on global economic sentiment, particularly in Asia and the US (regions bearing the brunt of higher customs tariffs). For the automotive industry this means lower sales of vehicles as consumers delay ordering large volumes of PA6, focusing on their day-to-day needs.

### Prices of PA6, caprolactam, benzene and phenol



Source: TECNON, ICIS.

### Average prices of polyamide 6, caprolactam and raw materials used in their production

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	EUR/t	EUR/t	%	EUR/t	EUR/t	EUR/t
Benzene (CIF, NWE)	739	580	21.5↓	602	485	680
Phenol (FD, NWE)	1,351	1,334	1.3↓	1,389	1,218	1,467
Caprolactam (Liq., DDP, WE)	2,140	1,948	9.0↓	1,922	1,922	1,977
Polyamide 6 (PA 6) (DDP, WE)	2,205	1,989	9.8↓	1,945	1,945	2,040
	USD/t	USD/t	%	USD/t	USD/t	USD/t
Caprolactam (CFR, NE Asia)	2,098	1,742	17.0↓	1,723	1,631	1,852
	USD/bbl	USD/bbl	%	USD/bbl	USD/bbl	USD/bbl
Crude oil (BRENT)	70.9	65.9	7.1↓	62.7	59.9	71.2

Source: ICIS, Tecnon, Rzeczpospolita.

Similarly to the previous period, in the second half of the year the prices of polyamide chain products will be mainly affected by the demand and supply situation in end-use markets, chiefly in the automotive industry.

Market players do not expect a significant improvement in demand this year, but after the usual slowdown in the summer months the demand may slightly pick up in September.

Another factor with a bearing on the Plastics Segment's market are prices of petrochemical feedstocks, putting pressure on price movements along the entire product chain. The price spread between polyamide 6 and caprolactam is low, which may force non-integrated manufacturers out of the market.

On the other hand, a long-term outlook for polyamide 6 producers extending their product chains towards much more technologically advanced products is favourable.

## CHEMICALS

### OXO product chain

In H1 2019, the prices of 2-EH went down 1.8% year on year, mainly on the back of lower prices of raw materials used in its production, as well as its wide availability.

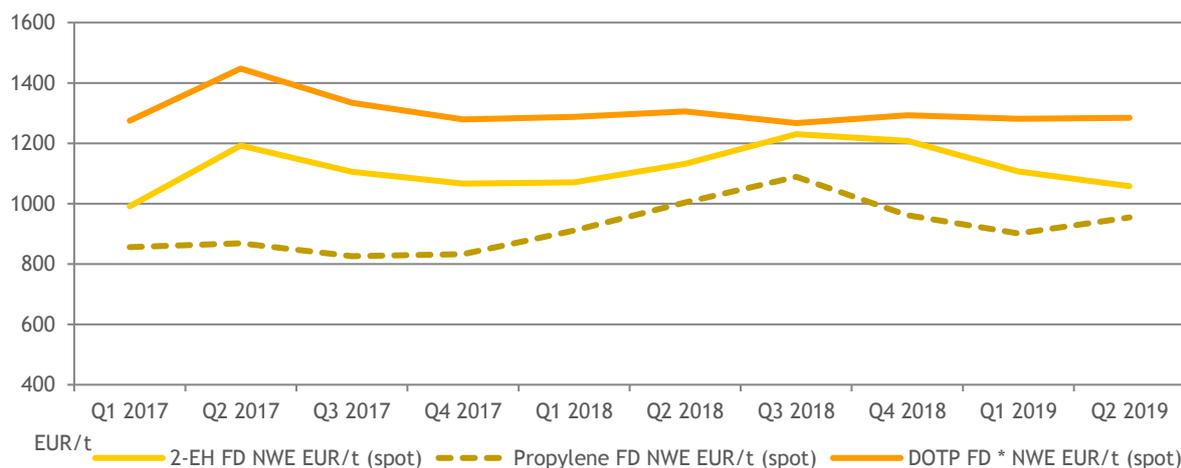
The beginning of the year was marked by limited availability of OXO alcohols across Europe, but the situation gradually improved towards the end of the first half of the year. In Q2 2019, the availability of OXO alcohols improved further due to the absence of production constraints in Europe and imports from other regions of the world. In early 2019, the demand remained relatively low, in line with the seasonal pattern, and began to rise gradually at the beginning of March. Unfortunately, in the second quarter of the year demand for OXO alcohols began to steadily decline again and was lower than expected.

In H1 2019, the prices of DOTP were down 1.1% year on year.

The supply of plasticizers in Europe was relatively solid in the first months of 2019, although there were periods when the volumes of DOTP supplied by European manufacturers were insufficient to fully meet demand despite DOTP imports. Key customers were gradually rebuilding their plasticizer stocks ahead of the summer season, when demand from the construction and automotive industries is usually stronger. In Q2 2019, the demand for plasticizers started to gradually fall which, given their high availability (plasticizer volumes supplied by European manufacturers, supplemented with imports from the US, Russia and Korea), drove their prices down.

The market is still concerned that consumption of plasticizers (including DOTP) in the coming months may fall short of forecasts. If the construction industry experiences a slowdown and the demand from the automotive industry continues to be very low, the demand for plasticizers may decline again. Additional volumes of DOTP (100,000 tonnes/year) that its manufacturer plans to sell on the European market may slightly decrease the sales volumes of DOTP manufactured by Grupa Azoty KĘDZIERZYN.

## Prices of 2-EH, DOTP and propylene



\* January 18th 2017 - The changes in DOTP prices were caused by alteration of the price gathering methodology applied by ICIS (which was revised to better present the actual market prices) and should not be viewed as an indication of an actual change in the plasticizer prices.

Source: ICIS.

## Average prices of 2-EH, DOTP and propylene

	Average H1 2018 EUR/t	Average H1 2019 EUR/t	y/y %	06-2019 EUR/t	MIN 2019 EUR/t	MAX 2019 EUR/t
2-EH (FD NWE spot)	1,102	1,082	1.8↓	1,050	1,050	1,148
DOTP (FD NWE spot)	1,297	1,283	1.1↓	1,268	1,268	1,294
Propylene (FD NWE spot)	958	928	3.1↓	960	899	987

Source: ICIS.

In H1 2019, the spot prices of propylene were down 3.1% year on year, while its contract prices rose by over 1.2%.

The supply of and demand for propylene remained fairly stable, with demand at the beginning of the year lower than projected. In Q2, the demand for propylene started to grow gradually. Compared with the first half of 2018, the processing industry built and maintained high stocks of propylene to mitigate possible production problems from supply constraints anticipated ahead of an upcoming wave of cracker maintenance shutdowns.

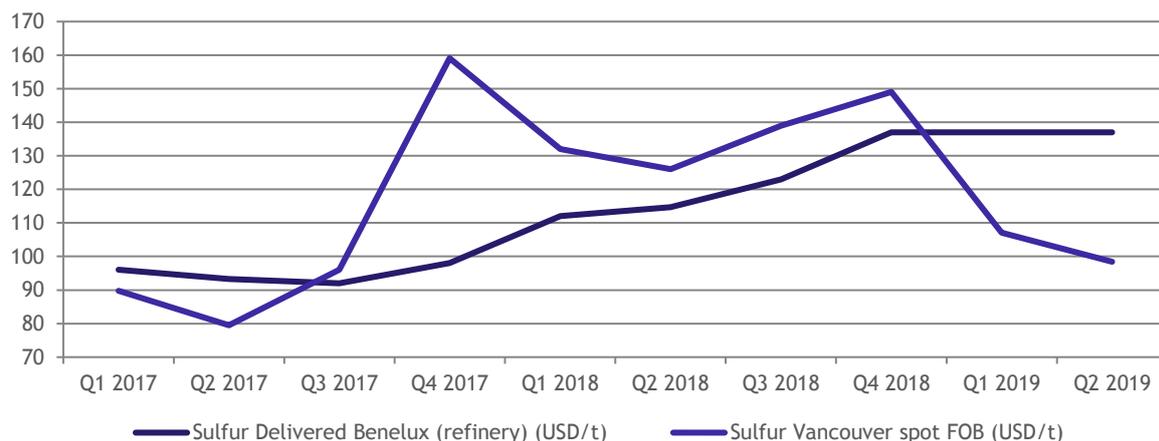
The coming months are likely to see a drop in propylene prices. Relaunch of crackers as well as continued imports of propylene to Europe (mainly from the United States) will lead to an oversupply of the product. In 2019, demand for propylene will increase by about 2.5% year on year.

## Sulfur

The overall average decrease in prilled sulfur prices in H1 2019 was approximately 20% relative to H1 2018. In China, demand slumped and stocks at seaports went up. In addition, China has been developing its steel industry, which starts to generate large volumes of sulphuric acid, increasing its supply at the expense of demand for prilled sulfur.

The prices of refined sulfur in Western Europe have been growing since Q1 2018. In H1 2019, the average prices of refined sulfur (Benelux delivered) were about 21% higher than in the same period of 2018. Between January and June 2019, liquid sulfur came under strong supply pressures, chiefly due to disruptions in the supply of Russian crude oil to certain European refineries. The disruptions resulted in reduction or suspension of crude refining, which had a direct effect on the production of liquid sulfur. The replacement of Russian oil by increased imports of sweet crudes also contributed to a reduced supply of liquid sulfur.

## Sulfur prices



Source: FERTECON.

## Average prices of sulfur

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	USD/t	USD/t	%	USD/t	USD/t	USD/t
Sulfur (Delivered Benelux refinery)	113	137	21.2	137	137	137
Sulfur (Vancouver spot FOB)	129	103	20.2↓	98	98	115

Source: FERTECON.

Short-term projections for liquid sulphur, including both NW Europe and Benelux delivered, are based on two different principal assumptions. On the one hand, a rigid approach to the price may be expected in connection with the recent supply shocks following disruption of Russian crude deliveries via the Druzhba Pipeline and *force majeure* events in refineries in France and Germany. These additional factors have been exacerbating the already tense market situation. On the other hand, global factors may take priority, and the global prilled sulphur market has considerably weakened, pushing down the prices. For Q3 2019, suppliers have agreed with their buyers rollover options for the Q2 2019 prices, and the prices will probably remain unchanged in the following quarter. The H1 2019 forecast will depend on the possibility of unlocking the Chinese market in the fourth quarter of the year. If prices of prilled sulfur rise slightly, liquid sulfur prices should remain stable compared with previous quarters.

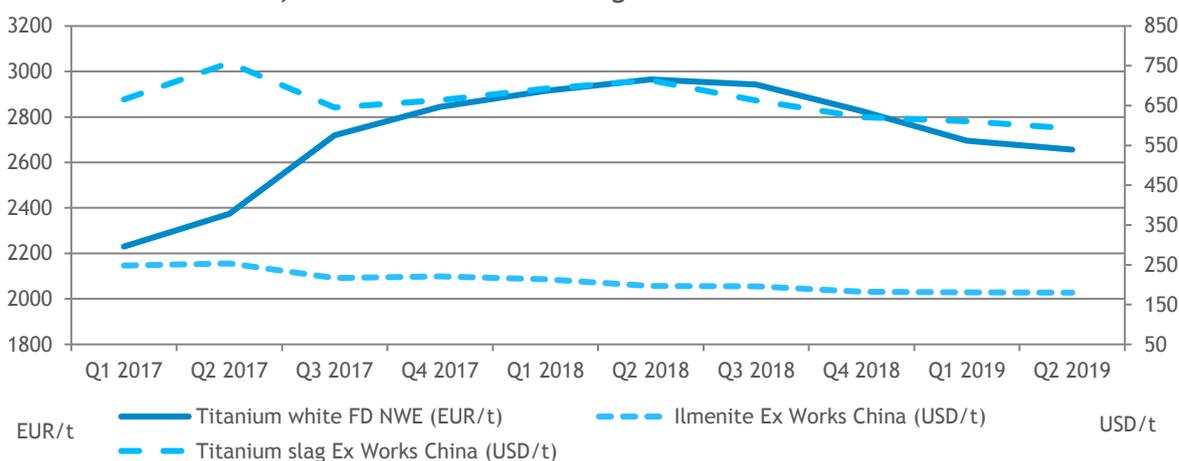
## Pigment chain

In H1 2019, prices of titanium white were on the decline across most of the global markets. The slump came in continuation of the downward trend triggered in the second half of 2018 by imports of large volumes of the pigment from China to Europe and as a result of declining demand due to a number of risk factors, such as the US-China trade war, Brexit, and the economic slowdown in the European Union, which ultimately led to an increase in customers' stocks. After two years without any seasonal fluctuations, the market again exhibited seasonality, which early in 2019 manifested itself in reduced demand for titanium white from the paints and coatings sector. Q2 2019 saw a seasonal increase in demand, and customer stocks of titanium white returned to standard levels. At the same time, interest in titanium white from China waned in the wake of two series of price increases introduced at the beginning of the year due to the weakening of the yuan. Both factors, combined with the price stabilisation programmes implemented by major global manufacturers of titanium white, helped avoid major decreases of titanium white (TiO<sub>2</sub>) prices. The availability of TiO<sub>2</sub> produced using the sulfate process is higher than that obtained in the chloride process. Differences in supply may affect the prices and lead to a stable, softer trend in the third quarter. Despite the rebound, in the second quarter demand was still slightly lower than expected in view of unresolved issues related to the trade war between the US and China, Brexit and the slowdown in the automotive market. Amid the continuing trade tensions between the U.S. and China, a part of the stream of Chinese titanium white may be transferred to the European market. In addition, it is expected that the production volumes coming from two new TiO<sub>2</sub> chloride process lines about to be brought on line by

Chinese producers will also be intended for sale in Europe. Titanium white price stabilisation programmes implemented by the largest global manufacturers of titanium white have enabled them to avoid major price reductions which, however, came at the expense of a more than ten percent drop in sales volumes. It remains an open question whether these programmes will be continued in the near future given the resistance from the buyers.

Due to seasonally stable demand, titanium white prices are forecast to remain unchanged in the third quarter of 2019, while in the fourth quarter of 2019, in view of the risk factors discussed above and the seasonal decline in demand from the paints and coatings sector, prices in the European market may be further reduced.

#### Prices of titanium white, ilmenite and titanium slag



Source: ICIS, CCM.

#### Average prices of titanium white and raw materials for its production

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	EUR/t	EUR/t	%	EUR/t	EUR/t	EUR/t
Titanium white FD NWE	2,940	2,676	9.0↓	2,650	2,650	2,735
	USD/t	USD/t	%	USD/t	USD/t	USD/t
Ilmenite Ex Works China	205	180	12.2↓	175	175	185
Titanium slag ex Works China	703	602	14.4↓	581	581	616

Source: ICIS, CCM.

As the prices of titanium white fell, so did the purchase prices of titanium-bearing minerals. The ilmenite prices tend to follow the market price of titanium with a lag of about six months. Accordingly, the purchase price of ilmenite went on a downward trend from Q4 2018 as a result of deteriorating conditions on the titanium white market. In the representative Chinese market, the average price of ilmenite in H1 2019 was USD 180/t, down 12.1% year on year.

Titanium slag is produced by smelting ilmenite with coke. As no investments are made in new furnaces, the titanium slag market is undersupplied, especially with respect to 74%-76% titanium slag used in the sulfate-based production of titanium white. Some of the manufacturers discontinued the production of titanium slag with a lower titanium content and switched to producing slags with a 90% or higher TiO<sub>2</sub> content, given better sales margins achieved in chlorine-based production of titanium white. Thus, despite the falling prices of titanium white, the global price of titanium slag remains high. On the other hand, the slag price in China is subject to significant fluctuations due to government inspections of pollutant emissions into the environment. These inspections limited the potential slag output, especially in 2017 and 2018, causing sharp increase in slag prices. In the first half of 2019, after the Chinese New Year celebrations, slag production was resumed, and some producers lowered their prices in an attempt to boost sales. In H1 2019, the average Ex Works price of 74%-76% titanium slag in the Sichuan Province was USD 602/t, down 14.4% year on year.

Given the challenging situation in the global market of titanium white, coupled with growing costs of production of titanium-bearing minerals as well as problems with availability of 74%-76% titanium slag, in the second half of 2019 the prices of titanium-bearing minerals are expected to remain fairly unchanged from their current levels.

## Melamine

In H1 2019, the average contract price of melamine FD NWE was EUR 1,558/t, down 4.6% year on year.

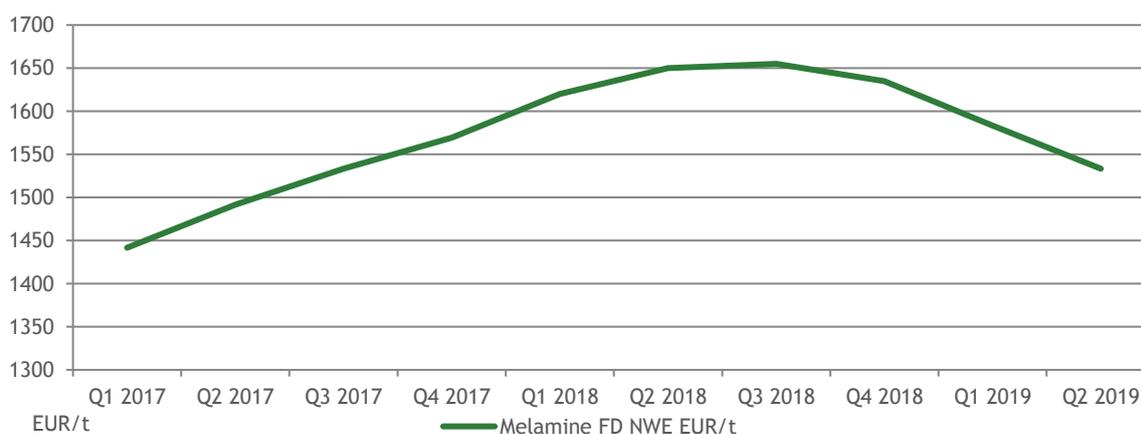
In the period under analysis, new offers for the supply to Europe of melamine originating from Qatar, Russia and China were submitted.

The limited supply from China, due to production unit maintenance shutdowns and low margins on melamine on the global markets, was offset by expanded production capacities in India, which were increased from 15,000 to 40,000 tonnes per year. The restart of a 40,000 tonne unit in Japan also had its contribution.

Prices were also affected by higher demand for melamine in the US, driven by high activity of the construction industry, and a considerable decline in activity in the South-East Asian markets during the rainy season which started in May 2019.

In the coming months, demand in Europe is expected to stay low. On the other hand, prices in the US are expected to rise ahead of the anticipated consumption peak in the construction industry. The Chinese market will continue to depend on buyer sentiment and the level of margins generated by local producers.

### Prices of melamine



Source: ICIS, Global Bleaching Chemicals.

### Average prices of melamine

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	EUR/t	EUR/t	%	EUR/t	EUR/t	EUR/t
Melamine	1,633	1,558	4.6↓	1,525	1,525	1,600

Source: ICIS, Global Bleaching Chemicals.

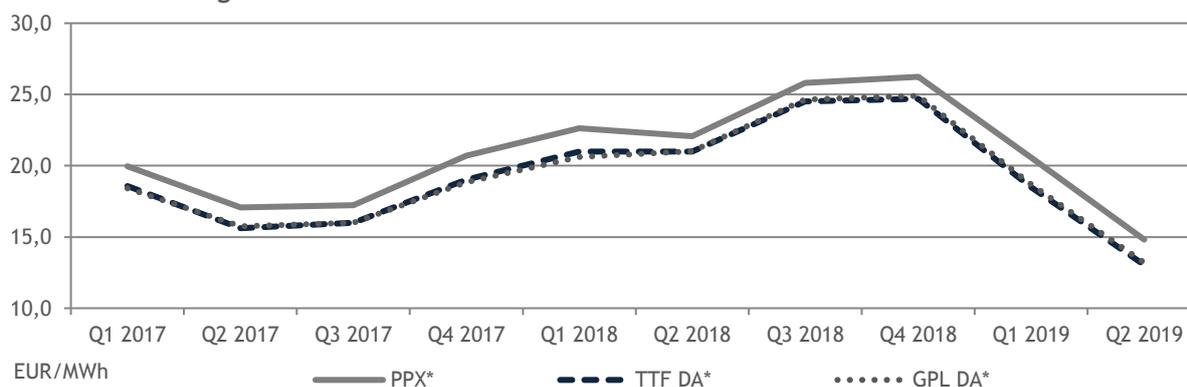
## ENERGY

### Natural gas

At the beginning of 2019, TTF spot gas prices were around EUR 22/MWh. At the end of January, amid low demand due to temperatures well above the seasonal average and increasingly cheaper coal, gas prices went into a downward trend. At the end of Q1 2019, the price of gas plunged to EUR 14/MWh. In the first half of April, we saw a strong price correction due to limited exports of gas from Russia and Norway, colder weather in Western Europe and increasingly more expensive crude oil. The price of gas went up by about EUR 3.5/MWh. Then the price fell again, to below EUR 10/MWh at the end of the first half of the year. In the reporting period, the price of coal, which became less competitive than gas for the power sector, fell from USD 85/t (ARA) at the beginning of the period to less than USD 50/t (ARA) at its end, supporting a decline in gas prices. Another factor that pushed gas prices down was a strong supply of gas, in particular record-high LNG volumes delivered to Europe, as well as high stocks. Low gas prices in Asia and high costs of freight made the European market relatively more attractive for LNG spot sales. Coupled with stable gas supplies via pipelines, this translated into an oversupply of gas in the European market and high rates of gas injection into storage facilities, which were 40% filled after a mild winter. At the end of June, gas storage facilities in Europe were

filled up to 73% of their capacity (72 bcm), up 24% year on year and 17% on the five-year average. Record high stocks that continue to grow further will be putting pressure on gas prices in the third quarter of the year. Moreover, high stock levels limit the flexibility of the European market in balancing current supply and demand and in absorbing oversupply from the global LNG market. The European Union's power sector is not able to increase its gas consumption any further. Due to these factors, relatively low gas prices are likely to prevail until the beginning of the heating season. In the long term, however, the market will be increasingly affected by the weather conditions and geopolitical factors, coupled with Russia's unpredictable export strategy, including a possible stoppage of gas transit via Ukraine starting from January 2020.

### Prices of natural gas



\*Excluding transmission.

Source: PGNiG tariff, ICIS.

### Average prices of natural gas

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	EUR/MWh	EUR/MWh	%	EUR/MWh	EUR/MWh	EUR/MWh
TTF DA*	21.0	15.8	24.8↓	10.5	10.5	21.6
GPL DA*	20.8	15.9	23.6↓	10.3	10.3	21.7
PPX*	22.3	17.7	20.6↓	11.6	11.6	23.9

\*Excluding transmission.

Source: PGNiG tariff, ICIS.

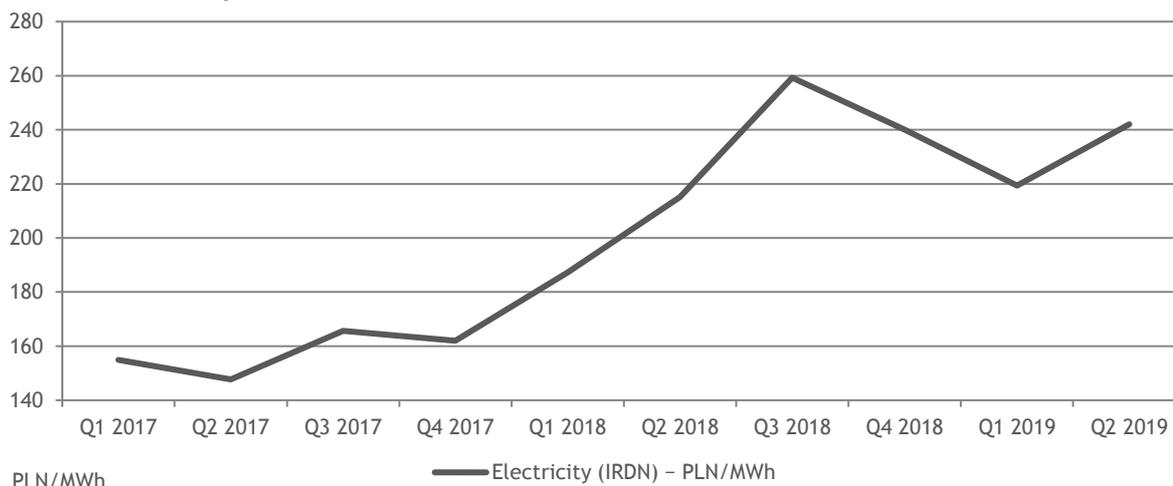
### Electricity

In the first six months of 2019, the average electricity prices went up over 14% year on year. The Polish market is largely affected by climate regulations, the legal regime, as well as the need to upgrade generation capacities (low emission standards - BAT) and maintain the operating capacity reserve (effect on production costs).

Electricity prices will be driven by the following factors:

- Fluctuations in the high prices of coal on global and domestic markets;
- Changes to the RES support system;
- Legal regulations to reduce electricity prices (excise duty, compensation for higher prices of CO<sub>2</sub> emission units, reduction of transition charge);
- Increasingly widespread use of energy efficient solutions leading to reduced electricity consumption;
- Price volatility for CO<sub>2</sub> emission allowances (in Q1 2019, the prices fell, which was followed by their steady increase throughout Q2).

## Prices of electricity



IRDN – average price weighted by the volume of all transactions on a trading day, calculated after the delivery date for the entire day.

Source: The Polish Power Exchange.

## Average prices of electricity

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	PLN/MWh	PLN/MWh	%	PLN/MWh	PLN/MWh	PLN/MWh
Electricity	201.36	230.52	14.5	256.2	76.9	335.7

Source: The Polish Power Exchange.

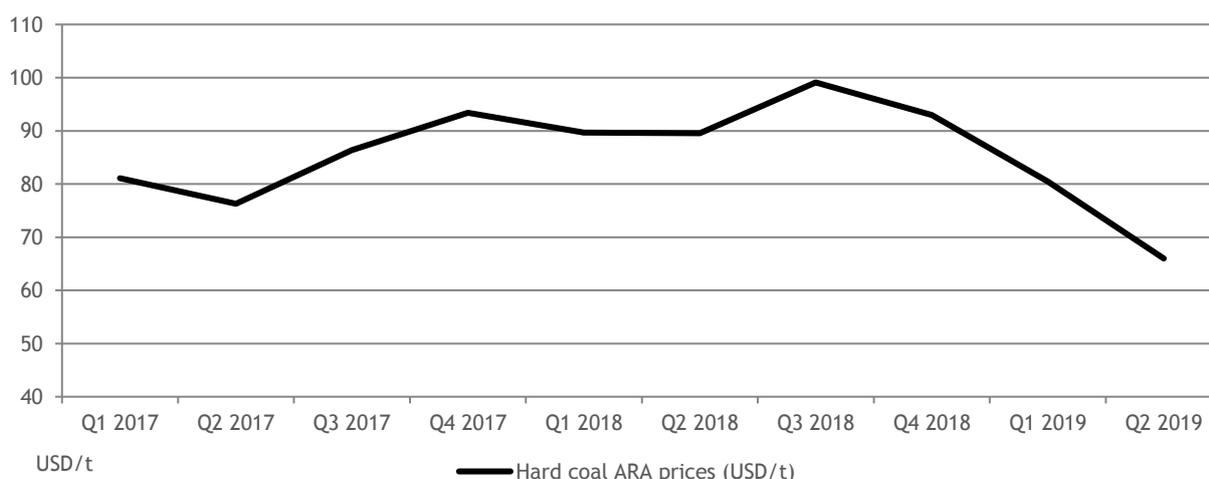
## Coal

In Q2 2019, the downward trend begun in H2 2018 continued. The average coal prices in H1 2019 fell by more than 18% year on year, to reach the period's low of USD 57.40/t (equal to the mid-2016 price level) at the end of H1 2019.

The current situation on the international coal market is described as highly volatile. The prices will come under downward pressure, driven, among other factors, by the level of stocks held in Europe, the policy of reducing coal consumption in favour of gas, growing purchases on Asian markets, as well as national coal trading policies.

Analysts expect coal prices to stay below USD 80/t in the coming months of 2019.

## Prices of hard coal



Source:

ARA

prices.

### Average prices of hard coal

	Average H1 2018	Average H1 2019	y/y	06-2019	MIN 2019	MAX 2019
	USD/t	USD/t	%	USD/t	USD/t	USD/t
Coal	89.58	73.34	18.1↓	59.44	57.40	88.55

Source: ARA prices.

## 2.3. Key financial and economic data

### 2.3.1. Consolidated financial information

#### Consolidated data

Item	H1 2019	H1 2018	change	% change
Revenue	6,102,509	4,877,029	1,225,480	25.1
Cost of sales	(4,649,905)	(3,969,147)	(680,758)	17.2
<b>Gross profit</b>	<b>1,452,604</b>	<b>907,882</b>	<b>544,722</b>	<b>60.0</b>
Selling and distribution expenses	(457,543)	(310,160)	(147,383)	47.5
Administrative expenses	(426,902)	(382,405)	(44,497)	11.6
<b>Profit on sales</b>	<b>568,159</b>	<b>215,317</b>	<b>352,842</b>	<b>163.9</b>
Net other expenses	(32,671)	(18,862)	(13,809)	73.2
<b>Operating profit</b>	<b>535,488</b>	<b>196,455</b>	<b>339,033</b>	<b>172.6</b>
Net finance income/(costs)	(30,440)	(35,982)	5,542	(15.4)
Share of profit of equity-accounted investees	6,127	7,191	(1,064)	(14.8)
<b>Profit before tax</b>	<b>511,175</b>	<b>167,664</b>	<b>343,511</b>	<b>204.9</b>
Income tax	(116,221)	(43,191)	(73,030)	169.1
<b>Net profit</b>	<b>394,954</b>	<b>124,473</b>	<b>270,481</b>	<b>217.3</b>
<b>EBIT</b>	<b>535,488</b>	<b>196,455</b>	<b>339,033</b>	<b>172.6</b>
Depreciation and amortisation	405,449	332,485	72,964	21.9
<b>EBITDA</b>	<b>940,937</b>	<b>528,940</b>	<b>411,997</b>	<b>77.9</b>

Source: Company data.

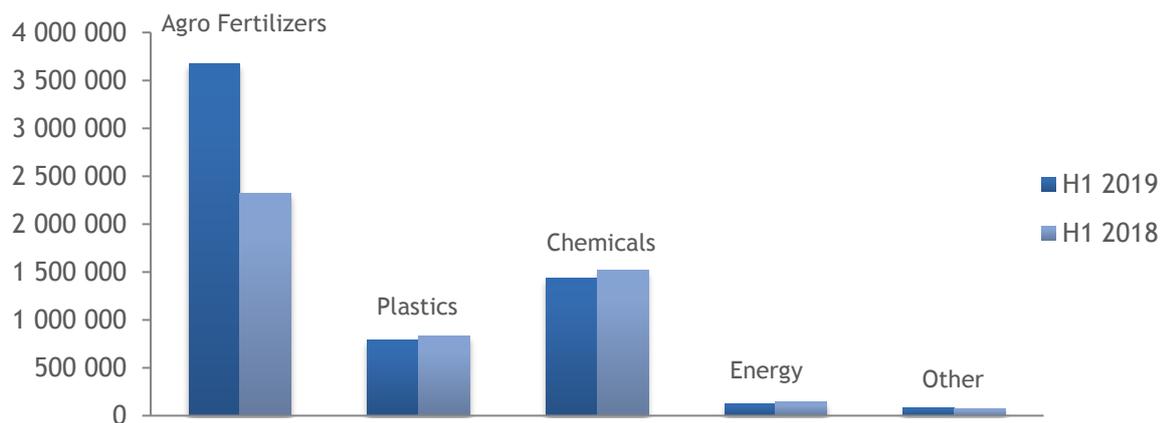
### 2.3.2. Segment results

#### EBIT by segment

	Agro Fertilizers	Plastics	Chemical s	Energy	Other
External revenue	3,668,992	790,562	1,434,120	125,606	83,229
Profit/(loss) on sales	451,667	48,828	124,035	(11,171)	(45,200)
EBIT	458,803	48,043	111,007	(20,472)	(61,893)

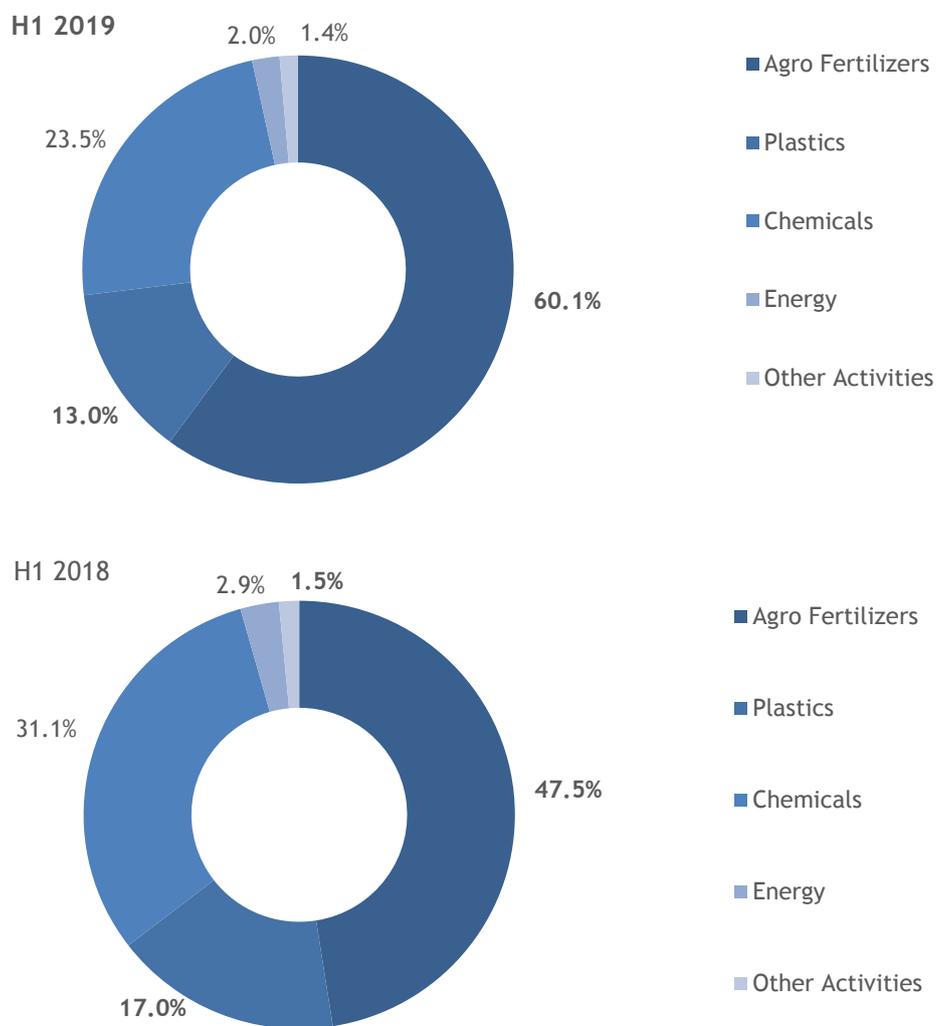
Source: Company data.

Revenue by segment



Source: Company data.

Revenue by segment



Source: Company data.

### Agro Fertilizers

In the first half of 2019, revenue in the Agro Fertilizers segment was PLN 3,668,992 thousand and accounted for 60.1% of the Group's total revenue. The segment's revenue went up 58.4% year on year, increasing the share of the revenue generated by the segment in the Group's total revenue. The revenue growth in H1 2019 is attributable to the process of taking control of Goat TopCo GmbH (currently COMPO EXPERT Holding GmbH).

The Agro Fertilizers segment reported a profit on sales and positive EBIT of PLN 458,803 thousand. Sales on the domestic market accounted for approximately 56.3% of the segment's revenue.

### Plastics

In the first half of 2019, revenue in the Plastics segment was PLN 790,562 thousand and accounted for 13.0% of the Group's total revenue. Year on year, the segment's revenue decreased by 4.9%. The segment reported a profit on sales and positive EBIT of PLN 48,043 thousand.

More than 88.3% of the segment's revenue was derived from sales on foreign markets.

### Chemicals

In the first half of 2019, revenue in the Chemicals segment amounted to PLN 1,434,120 thousand, having decreased 5.3% year on year. The segment's revenue accounted for 23.5% of the Group's total revenue. The segment reported a profit on sales and positive EBIT of PLN 111,007 thousand.

Sales on foreign markets accounted for approximately 60.2% of the Chemicals segment's revenue.

### Energy

In the first half of 2019, revenue in the Energy segment was PLN 125,606 thousand and accounted for approximately 2.0% of the Group's total revenue. Year on year, the segment's revenue decreased by 10.7%. Its EBIT was negative.

### Other Activities

In the first half of 2019, the Other Activities segment reported revenue of PLN 83,229 thousand, up 12.6% year on year, accounting for 1.4% of the Group's total revenue. Its EBIT was negative.

## 2.3.3. Structure of operating expenses

### Operating expenses by nature of expense

	H1 2019	H1 2018	change	% change
Depreciation and amortisation	403,490	331,358	72,132	21.8
Raw materials and consumables used	3,354,697	2,906,061	448,636	15.4
Services	551,499	445,179	106,320	23.9
Salaries and wages, including surcharges, and other benefits	882,240	724,024	158,216	21.9
Taxes and charges	187,614	169,444	18,170	10.7
Other expenses	81,715	56,634	25,081	44.3
<b>Total</b>	<b>5,461,255</b>	<b>4,632,700</b>	<b>828,555</b>	<b>17.9</b>

Source: Company data.

### Structure of other operating expenses [%]

	H1 2019	H1 2018
Depreciation and amortisation	7.4	7.2
Services	10.1	9.6
Salaries and wages, including surcharges, and other benefits	16.2	15.6
Taxes and charges	3.4	3.7
Other expenses	1.5	1.2
<b>Total</b>	<b>38.6</b>	<b>37.3</b>

Source: Company data.

### 2.3.4. Assets, equity and liabilities

#### Structure of assets

	H1 2019	H1 2018	change	% change
<b>Non-current assets, including:</b>	<b>10,342,386</b>	<b>8,145,189</b>	<b>2,197,197</b>	<b>27.0</b>
Property, plant and equipment	7,741,348	6,925,761	815,587	11.8
Intangible assets	1,006,792	375,203	631,589	168.3
Right-of-use assets	877,423	-	877,423	-
Goodwill	308,168	32,468	275,700	849.1
Other receivables	179,979	139,516	40,463	29.0
<b>Current assets, including:</b>	<b>4,285,565</b>	<b>3,808,258</b>	<b>477,307</b>	<b>12.5</b>
Inventories	1,499,693	1,048,788	450,905	43.0
Trade and other receivables	1,598,491	1,391,937	206,554	14.8
Cash and cash equivalents	550,613	1,088,796	(538,183)	(49.4)
Property rights	458,939	230,338	228,601	99.2
<b>Total assets</b>	<b>14,627,951</b>	<b>11,953,447</b>	<b>2,674,504</b>	<b>22.4</b>

Source: Company data.

#### Structure of equity and liabilities

	H1 2019	H1 2018	change	% change
<b>Equity</b>	<b>7,706,862</b>	<b>7,439,049</b>	<b>267,813</b>	<b>3.6</b>
<b>Non-current liabilities, including:</b>	<b>4,068,613</b>	<b>2,360,660</b>	<b>1,707,953</b>	<b>72.4</b>
Borrowings	2,401,830	1,529,586	872,244	57.0
Deferred tax liabilities	480,798	177,087	303,711	171.5
Employee benefit obligations	425,565	357,233	68,332	19.1
Lease liabilities	382,452	11,703	370,749	3,168.0
Government grants received	198,433	123,392	75,041	60.8
Provisions	157,492	134,107	23,385	17.4

	H1 2019	H1 2018	change	% change
<b>Current liabilities, including:</b>	<b>2,852,476</b>	<b>2,153,738</b>	<b>698,738</b>	<b>32.4</b>
Trade and other payables	2,011,314	1,826,932	184,382	10.1
Other financial liabilities	278,670	55,263	223,407	404.3
Borrowings	264,809	115,470	149,339	129.3
Government grants received	139,513	71,642	67,871	94.7
			<b>2,674,50</b>	
<b>Total equity and liabilities</b>	<b>14,627,951</b>	<b>11,953,447</b>	<b>4</b>	<b>22.4</b>

Source: Company data.

### 2.3.5. Financial ratios

#### Profitability ratios [%]

	H1 2019	H1 2018
Gross profit margin	23.8	18.6
EBIT margin	8.8	4.0
EBITDA margin	15.4	10.8
Net profit margin	6.5	2.6
ROA	2.7	1.0
ROCE	4.5	2.0
ROE	5.1	1.7
Return on non-current assets	3.8	1.5

Source: Company data.

#### Ratio formulas:

*Gross profit margin = gross profit (loss) / revenue (statement of comprehensive income by function)*

*EBIT margin = EBIT / revenue*

*EBITDA margin = EBITDA / net revenue*

*Net profit margin = net profit (loss) / revenue*

*Return on assets (ROA) = net profit (loss) / total assets*

*Return on capital employed (ROCE) = EBIT / TALCL, that is EBIT / total assets less current liabilities*

*Return on equity (ROE) = net profit (loss) / equity*

*Return on non-current assets = net profit (loss) / non-current assets*

#### Liquidity ratios

	H1 2019	H1 2018
Current ratio	1.5	1.8
Quick ratio	1.0	1.3
Cash ratio	0.2	0.5

Source: Company data.

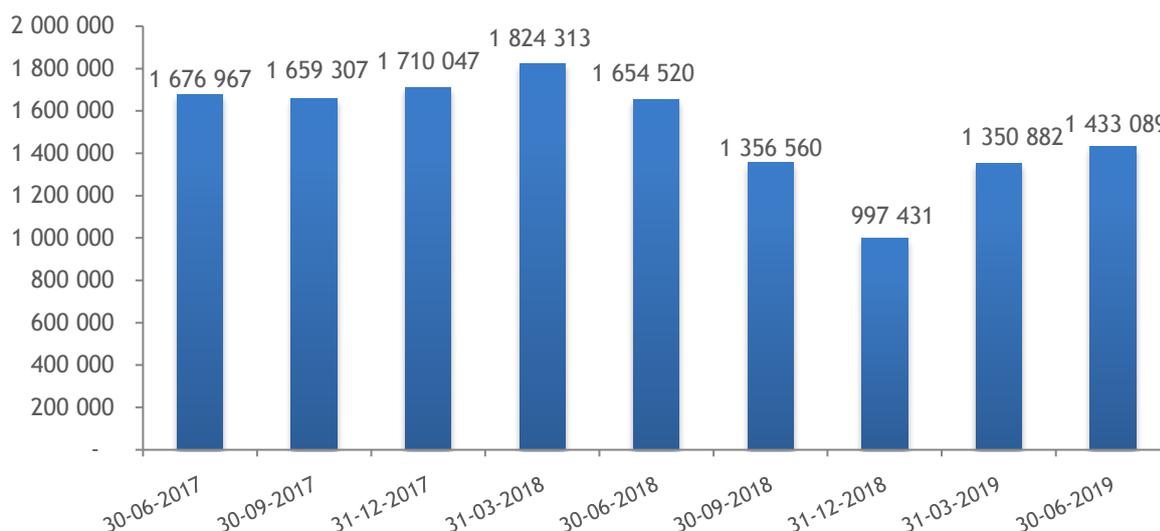
#### Ratio formulas:

*Current ratio = current assets / current liabilities*

*Quick ratio = (current assets - inventories - current prepayments and accrued income) / current liabilities*

*Cash ratio = (cash + other financial assets) / current liabilities*

### Changes in net working capital



Source: Company data.

### Operational efficiency ratios

	H1 2019	H1 2018
Inventory turnover	58	48
Average collection period	47	51
Average payment period	78	83
Cash conversion cycle	27	16

Source: Company data.

#### Ratio formulas:

*Inventory turnover = inventories \* 180 / cost of sales*

*Average collection period = trade and other receivables \* 180 / revenue*

*Average payment period = trade and other payables \* 180 / cost of sales*

*Cash conversion cycle = inventory turnover + average collection period - average payment period*

### Debt ratios [%]

Ratio	H1 2019	H1 2018
Total debt ratio	47.3	37.8
Long-term debt ratio	27.8	19.7
Short-term debt ratio	19.5	18.0
Equity-to-debt ratio	111.4	164.8
Interest cover ratio	1,385.9	806.2

Source: Company data.

#### Ratio formulas:

*Total debt ratio = total liabilities / total assets*

*Long-term debt ratio = non-current liabilities / total assets*

*Short-term debt ratio = current liabilities / total assets*

*Equity-to-debt ratio = equity / current and non-current liabilities*

*Interest cover ratio = (profit before tax + interest expense) / interest expense*

## 2.4. Financial liquidity

The Parent and key Group companies are fully solvent, with good credit standing. The Group is able to pay its liabilities as they fall due and to hold and generate free operating cash flows to further support payment of such liabilities in a timely manner.

The liquidity management policy operated by the Group consists in maintaining surplus cash and available credit facilities as well as limits under the intragroup financing agreement (one purpose of which is to effectively distribute funds within the Group), and in ensuring that their level is safe and adequate to the scale of the Group's business.

## 2.5. Borrowings

In H1 2019, the Group paid all of its borrowing-related liabilities when due, and there is no threat to its ability to continue servicing its debt.

The Group has access to umbrella overdraft limits related to the PLN and EUR physical cash pooling arrangements and under a multi-purpose credit facility, which may be used as directed by the Parent at times of increased demand for funding from any of the Group companies. The Grupa Azoty Group also has access to bilateral overdraft limits and multi-purpose facilities available to the Group companies.

The amount of limits under overdraft and multi-purpose credit facilities available to the Group as at June 30th 2019 was PLN 846m.

In addition, as at the reporting date, the Group had access to corporate credit facilities of approximately PLN 2,357m.

The Group also had access to special purpose loans totalling PLN 52m.

As at June 30th 2019, under the agreements specified above the Group had access to total credit limits of approximately PLN 3,255m.

The Group's financial condition is sound, and there are no material threats or risks of its deterioration in the future. The Group complies with the uniform covenants of its facility agreements which enable it to significantly increase financial debt when and as needed.

## 2.6. Type and amounts of one-off items affecting the assets, equity and liabilities, capital, net profit/loss or cash flows

One-off items which materially affected assets, equity and liabilities, capital, net profit/loss or cash flows were the impairment losses recognised, described in detail in Section 2.1.

Save for the above, there were no other one-off items which would materially impact the Group's assets, equity and liabilities, capital, net profit/loss or cash flows.

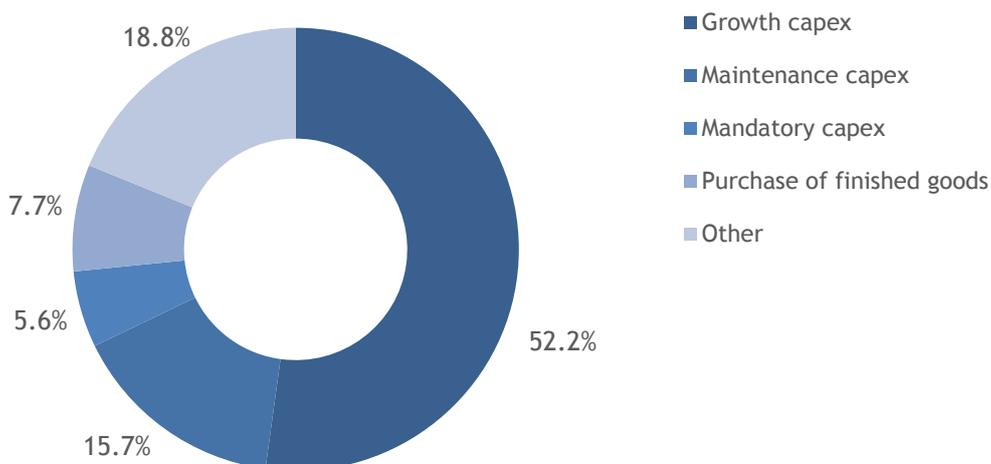
## 2.7. Key investment projects

The main items of the Group's capital expenditure in H1 2019 amounted to PLN 386,633 thousand (including amounts spent on components, major overhaul work and improvements, excluding equity investments).

Structure of capital expenditure:

• Growth capex	PLN 201,677 thousand
• Maintenance capex	PLN 60,554 thousand
• Mandatory investments	PLN 21,568 thousand
• Purchase of finished goods	PLN 30,090 thousand
• Other (components, major overhauls, catalysts, etc.)	PLN 72,744 thousand

### Structure of the Group's capital expenditure in H1 2019



Source: Company data.

### The Group's capital expenditure in H1 2019:

• Parent	PLN 56,385 thousand
• Grupa Azoty PUŁAWY Group	PLN 191,216 thousand
• Grupa Azoty KĘDZIERZYN Group	PLN 40,718 thousand
• PDH Polska S.A.	PLN 27,210 thousand
• Grupa Azoty POLICE Group	PLN 24,219 thousand
• Grupa Azoty Compounding Sp. z o.o.	PLN 20,936 thousand
• Goat TopCo GmbH	PLN 9,741 thousand <sup>*)</sup>
• Grupa Azoty KOLTAR Sp. z o.o.	PLN 5,907 thousand
• Grupa Azoty SIARKOPOL	PLN 5,585 thousand
• Grupa Azoty ATT Polymers GmbH	PLN 2,824 thousand <sup>*)</sup>
• Grupa Azoty PKCh Sp. z o.o.	PLN 1,892 thousand

<sup>\*)</sup> Translated at the EUR/PLN exchange rate quoted by the National Bank of Poland for June 28th 2019: EUR 1 = PLN 4.2520 (table No. 124/A/NBP/2019).

**Key investment projects implemented by the Group as at June 30th 2019:**

Project name	Project budget	Expenditure incurred	Expenditure incurred in H1 2019	Project purpose	Scheduled completion date
<b>Parent</b>					
Chemical Technology and Development Centre	74,100	70,325	18,610	Construction of R&D centre for Grupa Azoty S.A.	2019
<b>Grupa Azoty PUŁAWY</b>					
Upgrade of the existing and construction of new nitric acid units, and facilities for neutralisation and production of new fertilizers based on nitric acid	695,000	126,447	40,813	To raise the efficiency of nitric acid production and improve the economics of production of nitric acid-based fertilizers	2024
Facility for production of granulated fertilizers based on ammonium nitrate	385,000	337,878	45,466	To improve the quality of fertilizers by applying modern mechanical granulation	2020
Upgrade of steam generator OP-215 No. 2 to reduce NOx emissions	93,000	12,884	8,079	To bring the steam generator into compliance with new NOx emission standards and restore it to proper working condition	2020
<b>Grupa Azoty POLICE</b>					
Change of phosphoric acid production method (DA-HF technology)	83,350	81,449	-	To raise the efficiency of phosphoric acid production and improve the acid quality	2019
<b>Grupa Azoty KĘDZIERZYN</b>					
Upgrade of the synthesis gas compression unit supplying the Ammonia Plant	140,000	31,749	380	To rebuild the capacity of synthesis gas compression for the Ammonia Plant through the installation of a new compressor	2021
<b>PDH Polska S.A.</b>					
Propane Dehydrogenation (PDH) unit with related infrastructure, and polypropylene (PP) production unit	6,519,000	186,584	26,713	Construction of a propylene dehydrogenation plant (PDH) and a polypropylene production plant with associated infrastructure, including the expansion of the Police Sea Port to include a propane and ethylene handling and storage terminal.	2022
<b>Grupa Azoty Compounding Sp. z o.o.</b>					
Modified Plastics Plant	115,000	31,192	20,936	Construction of plastics modification unit	2019

Source: Company data.

## 2.8. Factors which will affect the Group's performance over at least the next reporting period

### Extended shutdown of ammonia and urea units

The extended shutdowns of the ammonia and urea units described in Section 2.1 will also affect the Grupa Azoty Group's performance in Q3 2019. Lost profits are primarily attributable to lost margins on sales of nitrogen products, including urea, urea solutions and ammonia, in a period when market conditions were conducive to generating relatively high margins.

### Exchange rates

In H1 2019, the EUR/PLN exchange rate trended sideways within the range PLN 4.25 - PLN 4.35, with limited appreciation at period end. In the second half of 2019, the Group expects limited appreciation of PLN against EUR in view of the prospects of interest rate cuts in the US and in the eurozone and a good outlook for the Polish economy which is expected to remain in a relatively sound condition.

At the same time, consideration must be given to the risk of global economic growth moving deeper into a slowdown (including the key economies of the US, European Union and China), and the risk of BREXIT going out of control combined with escalation of trade disputes. These factors may trigger a temporary rise in volatility and depreciation of PLN vs EUR.

With respect to the USD/PLN exchange rate, the Polish currency is expected to follow the EUR/USD trend, which may translate into a relatively higher volatility (within the range PLN 3.70 - PLN 3.90). Despite FED's interest rate cuts in July 2019, the US dollar may remain strong until the first signs of the eurozone going back on the growth track can be seen.

It is assumed that the forecast currency trends should not have a material bearing on the Group's performance in H2 2019.

### Interest rates in Poland

Domestic interest rates remained stable throughout H1 2019 and, in line with the Governor of the National Bank of Poland's earlier announcements, should remain unchanged until the end of 2019. The main reference rate applicable to credit facilities contracted by the Group (1M WIBOR) should remain at about 1.7%. This will help stabilise the Group's borrowing costs, which should remain at a relatively low level, and reinforce its debt service capacity, also if the Group decides to increase debt to finance its investing activities, as planned.

Given the economic downturn in the eurozone and limited rise in inflation, the European Central Bank will maintain or even enhance its quantitative easing programme and a policy of negative interest rates.

Also the FED decided to put an end to the series of interest rate increases in 2018 and for the first time in a decade cut the interest rates in July 2019 (by 0.25%), driven by the concerns that economic downturn in the US is just around the corner.

To conclude, any adverse changes to the current low interest rates on debt in the currencies used by the Group to finance its activities (PLN and EUR) are unlikely before the end of 2019. Thus the risk of the Group's financial condition or results of operations deteriorating on higher borrowing costs should be considered low.

Relative to market rates, the relatively narrow spread between credit and deposit rates available to the Group is expected to continue.

Interest income earned on free cash under cash pooling and fixed-term deposits will partially offset the borrowing costs.

### Regulatory area

- H1 2019 saw continuation of work on the new Fertilizers Regulation at the EU level - even though Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003 was published in the Official Journal of the European Union on June 25th 2019 and entered into force 20 days after its publication, and will become fully binding after a three-year *vacatio legis* period. Over the next three years, the European Commission is to issue a number of delegated acts supplementing the provisions of the Regulation (relating, *inter alia*, to notification bodies, product conformity assessment, labelling requirements, market surveillance, criteria on agronomic efficiency and safety of use, as well as biodegradability criteria for polymers used in fertilizer products). In that period, legal acts incorporating the provisions of the Regulation must also be drafted and issued in EU member states, including Poland.

- On June 12th 2019, the Directive of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment was published and is to be implemented by member states. The Directive primarily applies to the plastic packaging and disposable products industry and is one of the elements of the EU Circular Economy and plastics strategy. The directive proposes to reduce specific types of single-use plastic products, taking into account consumers' needs and behaviour as well as business opportunities.
- The Ministry of the Environment continues to work on implementing the EU NEC Directive into the Polish legal framework. Public consultations on the implementing acts/regulations are expected in the second half of 2019. The new regulations provide mainly for reduction of annual emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia, particulate matter (soot) and methane in 2020-2030. Reduction of ammonia emissions is the key issue for both the fertilizer industry and agriculture. The target set by the EU for Poland is to cut ammonia emissions by 1% yearly between 2020 and 2029 and by 17% from 2030 onwards compared to the 2005 emission levels. The Polish government is required submit its air pollution control programme, monitoring data, and air pollutant emission inventory and projections to the European Commission.
- On May 15th 2019, the first reading of the draft Polish Fertilizers and Fertilization Act took place at the Committee on Agriculture and Rural Development at the Polish Parliament. The purpose of the amendment is to implement the provisions of the national document concerning construction of agricultural biogas plants for 2010-2020 and the provisions of Directive 2009/28/EC of the European Parliament and of the Council. In addition, in view of the new EU Fertilizer Regulation coming shortly into force, further amendment of the national regulations on fertilizer products will be necessary.
- On June 19th 2019, the Council of Ministers adopted the Act on Compensation Scheme for Energy-Intensive Undertakings. The notification procedure and work on an implementing regulation to the Act commenced. The Act will subsequently be debated on in the Sejm and the Senate (the lower and the upper house of the Polish Parliament), and submitted to the President of Poland to be signed. The Act concerns allocating a portion of funds obtained by Member States in connection with the sale of CO2 emission allowances as compensation for the industrial sector.
- June 29th 2019 saw the entry into force of the Act of June 13th 2019 amending the Act Amending the Act on Excise Duty and Certain Other Acts, the Energy Efficiency Act and the Act on Liquid Biocomponents and Biofuels. Under the amendment, households, micro and small enterprises, hospitals, public sector entities, including local governments and state-owned unincorporated organisations will pay the same price for electricity in 2019 as they did in June 2018. Except for households, the other customers referred to above will have to submit special declarations of compliance with statutory requirements. Medium-sized and large enterprises that purchase electricity on the market will be entitled to apply for reimbursement of their costs from the Price Difference Reimbursement Fund, based on the rules of *de minimis* aid. Those enterprises will be able to submit their applications after the end of the third quarter of 2019.
- The Act Amending the Waste Act and Certain Other Acts is awaiting the President of Poland's signature. The Act clarifies the provisions relating to the operation of a database on products and packaging and on waste management (BDO) as an electronic system.

### International trade policy

- China continues to apply anti-dumping duties on imports of caprolactam originating in the European Union and the United States (imposed in October 2017 for a period of five years) and polyamide 6 from the European Union, the United States, Russia and Taiwan (the most recent decision to uphold the anti-dumping duties for another five years was made in April 2016). The duty on caprolactam imports applies, among others, to the Grupa Azoty Group companies based in Puławy and Tarnów, for which the rates were set at 4.4% and 4.9% (not more than 25.5%), respectively. With regard to polyamide 6, the rate for the Tarnów-based company was set at 9.7% (not more than 23.9%).
- The anti-dumping measures on imports of melamine originating in China, imposed for a period until July 2nd 2022, continue to apply. The fixed duty of EUR 415/tonne applies, with the exception of the three Chinese exporting producers that benefit from the minimum import price of EUR 1,153/tonne.
- Also, the anti-dumping duty on imports of ammonium nitrate from Russia continues to apply, at a rate announced on November 16th 2018 following a review carried out at the request of EU agricultural producers' associations. However, September marks the end of a five-year period since the last extension of the anti-dumping duties (2014). Therefore, EU producers submitted, through Fertilizers Europe, requests to the European Commission for extension of the duties for

another five years. Upon submission of the requests, the European Commission will have up to 15 months in which to review the duties and make a decision whether to uphold or lift them. The existing duties continue to apply during the review, and the European Commission's future decision will either uphold or lift the existing rate of anti-dumping duty altogether.

- An anti-dumping procedure concerning urea and ammonium nitrate mixtures (UAN) imported from Russia, Trinidad and Tobago, and the US is pending. On April 12th 2019, the European Commission decided to impose, for a period of six months, temporary anti-dumping duties on imports of urea and ammonium nitrate mixtures, at rates ranging from 16.3% to 34%, depending on the country of origin or manufacturer.
- Ukraine continues to apply anti-dumping duties of about 32% on nitrogen fertilizers from Russia. The anti-dumping duty on ammonium nitrate was set at 29.25% for Dorogobuzh and at 42.96% for other Russian exporters (previously, the anti-dumping duty was set at 31.84%). These duties were imposed in 2014 and remained in force until 2019. However, the situation may change following a WTO ruling issued in connection with Russia's request for consultations in this respect. Russia claims that the duty rates are in breach of the WTO Anti-Dumping Agreement. According to WTO, the case is still under review. Pursuant to a decree of June 26th 2019, no fertilizers may be imported to Ukraine from Russia as of July 1st 2019 (the ban has been extended until December 31st 2020).
- Negotiations between the UK government and the European Commission regarding the UK leaving the European Union (Brexit) are still at an impasse - the new Brexit deal deadline is October 31st 2019.
- On June 28th 2019, the European Union and Mercosur<sup>[1]</sup> reached a political agreement for an ambitious, balanced and comprehensive trade agreement. The new trade framework - part of a wider Association Agreement between the two regions - will consolidate a strategic political and economic partnership and create significant opportunities for sustainable growth on both sides, while respecting the environment and preserving interests of EU consumers and sensitive economic sectors. The Agreement will remove duties for more than 90% of chemical products exported by the European Union to Mercosur.
- Negotiations of the European Union's trade agreements with the following third countries are in progress: Vietnam (entry into force in 2019), Singapore (awaiting adoption by the Council), Mexico (the texts of the agreements are now undergoing a legal review), Chile (negotiation phase), Australia and New Zealand (negotiation phase), and the United States.

### 3. Risks and threats

#### Risks associated with the execution of investment projects

*Group - medium risk / Parent - medium risk*

Risk that key investment projects will not be completed according to plan and/or will not deliver the expected results. Risk that a given investment project may not be executed at all, may be delayed and/or may be over budget.

Implementation of strategic investment projects is among the Group's major areas of activity, critical to its value growth. The Group's strategy envisages both implementation of projects in its core business areas and expansion into new segments.

Investment decisions are made on a case-by-case basis in the context of compliance with the Group's strategy, the project's expected economic viability, and the level of risk associated with achieving the targets. In consequence, considering the nature of the Group's investment projects, including the time required for their preparation and implementation and the impact of new regulations on their profitability, there is a risk that some investment projects included in the Group's investment programme will be modified, their completion will be delayed or that they will not be implemented at all.

Each investment project is implemented in line with internal procedures and is fully supervised by the Investment Corporate Supervision Department. Monthly reporting by Project Managers and quarterly corporate reporting have been put in place at the Parent. The reports contain analysis identifying potential increases in the risk of exceeding the deadline and/or overrunning the budget of a specific project.

#### Risk associated with price and availability of key raw materials

<sup>[1]</sup> Mercosur (Southern Common Market) is a South American regional integration bloc established under the Treaty of Asunción of March 26th 1991 by Argentina, Brazil, Paraguay and Uruguay.

*Group - low risk / Parent - low risk*

Risk that production may be stopped or significantly constrained due to disruptions in supplying a key raw material or a significant increase in its price.

Continuity of the Group's production depends on availability and quality of key raw materials. No assurance can be given that terms of business with some suppliers will not deteriorate or that the supply of raw materials used in production will not be interrupted. In particular, a limited number of potential suppliers and monopolisation on some markets for commodities used by the Group may be a source of risk. The continuity of supply of raw materials to the Group may be disrupted by factors such as technical failures, natural disasters, adverse market conditions resulting from the lack or limited supply of certain raw materials, significant adverse weather conditions or events of force majeure. Furthermore, no assurance can be given that contracts for the supply of raw materials will not contain clauses unfavourable to the Group companies, which would unduly or ineffectively protect the Group companies' interests in the event that a given supplier fails to perform or improperly performs its obligations under such contracts.

Procurement of strategic raw materials at the Parent is governed by a dedicated procedure. Overall supervision is exercised by the Corporate Procurement Department. A Procurement Committee has been established at the Group to constantly monitor the market situation and interconnections in raw materials procurement.

**Risk related to price and availability of natural gas**

*Group - medium risk / Parent - medium risk*

Risk related to prices and operational disruptions caused by a lower-than-expected or restricted supply of adequate volumes of natural gas of the right grade and quality required for production.

In its search for competitive sources of gas, the Group seeks to diversify both the geographical regions and suppliers of gas, providing details of its efforts in press releases and reports. Negotiations with gas suppliers are conducted at the Group level, which allows the Group to leverage its stronger bargaining position. The Parent takes steps to satisfy its overall gas demand through a combination of a long-term contract with its strategic supplier, annual or shorter contracts with a number of other suppliers, and transactions on energy exchanges and the OTC market to meet short-term demand of the Companies. To this end, the Parent has concluded a long-term contract with a reliable strategic partner. The contract secures 80-100% of the needs, making it possible to partially diversify supplies. The contract provides for a price formula based on market quotations and allows the Parent to hedge prices based on forward products. The abolishment of tariffs on the Polish gas market and conclusion of a long-term contract with pricing formulas based on the German market (the largest gas market in Europe) limited the risk of having to pay significantly higher prices than the direct EU competitors.

Furthermore, the risk of supply constraints due to disruptions in gas supplies to Poland has been mitigated by Regulation (EU) 2017/1938 of the European Parliament and of the Council concerning measures to safeguard the security of gas supply. Moreover, the gas availability and price risk is mitigated by the supplies of substitute and cheaper gas from local sources. They ensure that in the event of limited supply of grid gas production may be continued at satisfactory levels, and if supplies from local sources are lower than needed, grid gas is purchased on the Polish Power Exchange and supplied as part of within-day interruptible capacity.

### **Risk of major industrial accidents or technical failures disrupting the continuity of processes and operation of key production units**

*Group - medium risk / Parent - medium risk*

The risk of major industrial accidents defined in accordance with the Environmental Protection Law or technical failures disrupting the continuity of processes and operation of production units of key importance for the implementation of the enterprise's objects.

The Parent is classified as an establishment with a high risk of a major industrial accident (upper-tier establishment - UTE). Therefore, the Company has developed and implemented incident prevention programmes and regularly monitors and implements legal safety requirements, including requirements of the SEVESO III Directive. The Parent has reliable safety systems and preventive and prediction measures in place at all organisational and technological levels, including occupational health and safety as well as protection against industrial accidents. The relevance of adopted safety measures is assessed by internal and external inspection authorities as well as by accreditation/certification bodies.

The strategy for managing the risk of major industrial accidents or technical failures focuses in the first place on measures to prevent critical situations, and if any such event occurs, the risk is shared with the insurer.

Measures to prevent emergency situations at the Grupa Azoty Group companies include ongoing monitoring of hazards related to technological processes and operation of machinery and equipment, ongoing assessment of their technical condition, and monitoring of threats in storage and transport. The Parent's plants and units are equipped with safety and protection systems to minimise the risk of major accidents and environmental contamination, as well as risks to human life and health. The Group's units are Best Available Techniques (BAT) compliant. The units are kept in a proper working order also by carrying out scheduled technical stoppages and maintenance shutdowns, periodic inspections and routine rounds as required in the technological and job instruction manuals. The relevant execution resources are provided.

If a failure or accident occur, they are thoroughly analysed in order to identify their causes. Based on such analysis, preventive measures are taken to minimise the risk of such incidents taking place again.

### **Risk of higher fertilizer imports**

*Group - increased risk / Parent - high risk*

Risk of failure to achieve target revenue from sales of fertilizers due to higher fertilizer imports. The risk of periodically increasing volumes of fertilizers imported into Poland from other European Union countries and worsened economics as a result of squeezed product margins caused by the emergence of new market players and a significant volume of imported fertilizers. Consequently, there is a risk of failure to achieve targeted revenue from sales of fertilizers.

In recent years, imports of compound fertilizers (NP and NPK) from non-EU countries have been growing markedly. Competitors from eastern markets have access to cheap raw materials, such as natural gas, which is the key cost component in fertilizer production. Fertilizer production costs in the European Union are also driven by a number of regulations, including limits on CO<sub>2</sub> emissions, which are not applied in Eastern European or Asian markets.

The Group's efforts focus on mitigating the risks and on strengthening and consolidating the leading position in the segment of fertilizer production and sale. The Group monitors fertilizer import volumes based on data provided by the Customs and Tax Office and reports from field representatives. In order to best respond to market developments, the Group changes its marketing/pricing policy to align its prices with those of competitors, thus ensuring placement of the planned volumes on the market. The Parent also takes steps to optimise production costs and broaden the portfolio of products and services offered to customers.

Measures taken by the Group to strengthen its competitive edge include pursuit of the objectives laid down in its updated strategy with respect to distribution and capex projects designed to improve production efficiency. The Group is actively involved in the work of Fertilizers Europe (the European Fertilizer Manufacturers Association). It also works with universities and research institutes and assists agricultural producers to ensure they have access to state-of-the-art production and fertilizer solutions.

### **Risk of tightening of EU or local regulations which would restrict the use or application of products**

*Group - medium risk / Parent - medium risk*

The Group monitors and implements new requirements on an ongoing basis. The Group takes an active part in the work of registration consortia and European associations, and cooperates with Polish institutions to receive advance information on upcoming changes in the legislation.

In each case, the impact of new regulations on operations and marketed products is reviewed. Amendments to EU directives and regulations applicable to the Group's key manufacturing and trading activities give rise to a potential risk that the use of the Group's products by customers in the EU countries may be restricted.

At present, the following risks are under analysis: the risk of reduced sales of nitrogen fertilizers owing to tighter emission limits for greenhouse gases, ammonia and nitrates from nitrogen fertilizers; the risk of more stringent EU regulations on the content of heavy metals (cadmium, nickel and lead) in fertilizer products; and the risk of reduced sales of selected plastic materials due to stricter requirements on plastic recycling.

### **Risk of rising prices of carbon emission allowances**

*Group - medium risk / Parent - medium risk*

Potential threats related to the risk include higher market prices of CO<sub>2</sub> emission allowances or insufficient volumes of CO<sub>2</sub> emission allowances purchased.

To monitor the risk, an EU ETS Management Committee and an EU ETS Executive Team have been established. In order to mitigate the risk of a negative impact of CO<sub>2</sub> emissions trading prices on its results, the Group monitors the emission allowances market on an ongoing basis and purchases emission allowances on the spot market when prices are favourable.

In addition, a part of future emission allowances are secured by using futures contracts - emission allowances are purchased in the form of derivative financial instruments that give rise to an obligation to deliver allowances in future periods when they should be redeemed, which is done in accordance with the purchase strategy in force.

The policies and procedures in place are designed to ensure smooth trading in CO<sub>2</sub> emission allowances, ensure its efficiency, optimise the cost of operation of the EU Emissions Trading Scheme, and minimise the risks associated with participation in the scheme.

### **Currency risk**

*Group - medium risk / Parent - medium risk*

Risk of excessive finance costs, failure to achieve planned performance levels or targets as a result of unfavourable changes in exchange rates.

The Parent has positive exposure to the euro and the US dollar, which is hedged based on movements in the euro and US dollar exchange rates. The Group Companies hedge their currency exposures using currency forwards and natural hedging. Since 2014, the Group has applied the Financial (Currency and Interest Rate) Risk Management Policy. Since 2015, a centralised financing model has also been in place, supporting a long-term hedge horizon by contracting a portion of long-term financing in the form of a euro-denominated facility. Starting from 2017, the Group has also reduced its euro-denominated net currency exposure as a result of increasing the extent of natural hedging.

The Group's Risk Committee analyses and sets consolidated targets for currency exposure of the Group and its leading companies, and recommends target levels and horizons of hedges, types of currency instruments, and exchange rates for hedge transactions. Hedging transactions are executed by those Group companies where the exposure actually occurs. The applied risk management methods enable the Group to limit the existing risk exposure by using selected hedging instruments and strategies, based on long-term and one-year currency exposure plans and their updates to account for quarterly operational plans and short-term projection of currency flows and currency expenditures, and based on the transactions already registered in the financial and accounting system. However, these methods do not eliminate that risk completely. In addition, currency risk may affect the domestic nitrate fertilizer market in the context of bilateral trade with other EU countries. Strong fluctuations in exchange rates may affect the Group's business, financial condition or performance. In addition, the Group applies hedge accounting by matching specific foreign currency positions to be hedged with hedging instruments with a time horizon of more than one year.

### **Interest rate risk**

*Group - low risk / Parent - low risk*

The Parent's net exposure to the interest rate risk is partly limited as the Parent has credit facilities bearing interest at 1M WIBOR plus the banks' margins. At the same time, the Parent grants the Group

companies loans bearing interest at the same variable rate and invests cash surpluses in short-term deposits (with interest charged at current WIBOR and WIBID market rates). The Group also uses surplus cash in PLN and EUR to balance the debt owed by the Group companies in PLN and EUR under overdraft agreements connected with physical cash pooling agreements (from 2016 in PLN and from 2018 in EUR). This limits the Group's net exposure to interest rate risk. In addition, by 2017 the Company had utilised the long-term fixed-rate loan facility from the EIB, which was disbursed for 10 years in tranches up to an agreed aggregate amount in the euro. The Group also has access to transaction limits with banks, which enable it to enter into fixed-rate hedging transactions (e.g. FRA) if the risk of a significant increase in financing costs due to higher variable market interest rates grows.

Furthermore, the Group has implemented a Financial (Currency and Interest Rate) Risk Management Policy. The Group has a Risk Committee which analyses and defines the Group's and its material companies' consolidated exposure to interest rate risk and may recommend to the Group's Management Board strategies for interest rate risk hedging.

In the event of low market interest rates (actual and planned), risk indicators are calculated and risk assessment is performed based on a scenario analysis with regard to the Group's and its companies' actual exposure to that risk. If the risk exposure and/or market interest rates significantly increase, the Risk Committee considers whether the value exposed to interest rate risk should be calculated in accordance with the VaR methodology. Agreements hedging against interest rate risk are made by the Parent, which is a borrower under the New Financing agreements and the Agent under the overdraft facility agreements and multi-purpose credit facility agreements. Under the loan agreement with the European Investment Bank, the Group is obliged to keep its consolidated EBITDA to net interest expense ratio at no less than 6x.

#### **Liquidity risk**

*Group - low risk / Parent - low risk*

Liquidity risk is the risk of unexpected cash shortage or unavailability of credit facilities, resulting in temporary loss of ability to meet financial liabilities or the need to raise financing on unfavourable terms.

The Group is exposed to financial liquidity risk consisting in the Group's inability to repay its financial liabilities when they fall due. Limitation in access to financial markets, which may result in preventing the Company from raising new financing when needed or from refinancing the existing financing, can increase liquidity risk.

The methods used by the Group to mitigate liquidity risk may prove ineffective, which may have a material adverse effect on the Group's operations, financial position or operating performance.

The Parent has in place a Financing and Liquidity Risk Management Policy for Grupa Azoty.

The Group has implemented a package of New Financing agreements and amended the umbrella overdraft and multi-purpose credit facility agreements, which secure current liquidity of the Group and its companies. The Parent is also the agent under the umbrella agreements, authorised to allocate sub-limits of credit facilities to individual Group companies. The Group has entered into an intragroup financing agreement with its key companies, under which it provided the companies with financing limits. On October 1st 2016, the Group launched a physical cash pooling service in PLN and, on November 2nd 2018, in EUR, enabling the Group companies to take advantage of the Group's overall liquidity position, including for short-term financing of deficits at some companies with surpluses at others. As a result, the Group has access to credit facilities/surplus cash as well as mechanisms for their free redistribution, which significantly reduces the probability of short-term liquidity loss by the Group or its individual companies.

#### **Risk related to the security of IT systems**

*Group - medium risk / Parent - medium risk*

In their operations, the Group companies use IT systems whose operation can be disrupted by errors in software or ICT infrastructure failures. In addition, some of the systems may be subject of cyber attacks, in particular those taking advantage of defects or security gaps in ICT systems, not yet identified by their manufacturers or providers of ICT security solutions.

Despite the implementation of ICT security systems and procedures as well as constant efforts to minimise the risk of failure and breaking the security barriers in place, the technical and organisational solutions applied may prove ineffective, and failures or ICT security breach incidents may pose a threat to the systems' uninterrupted operation and to the confidentiality and integrity of the data processed in these systems, which in turn may have a material adverse effect on the Group's business, financial position or growth prospects.

The Parent has in place a number of solutions governing information security management: Information Security Policy, ICT system security policy, Instructions for secure use of email, and

internal orders concerning the protection of business secrets and handling of information security incidents. The Group has established a Data Protection Committee, as well as a security testing team and an ICT security procedure team. The security of ICT systems is monitored and ICT incident handling procedures have been implemented.

## 4. Other information

### 4.1. Other significant events

#### **Selection of general contractor for the Polimery Police project**

On March 19th 2019, the Management Board of PDH Polska S.A. passed a resolution to approve/qualify Hyundai Engineering Co., Ltd. as a pre-selected bidder in the tender to award a lump-sum turn-key contract for the execution of the Polimery Police Project.

On April 18th 2019, the Management Board of PDH Polska S.A. passed a resolution to finally select Hyundai Engineering Co., Ltd. as the general contractor under a tender to award a contract for turnkey execution of the Polimery Police project for a lump-sum price of EUR 992,811 thousand exclusive of VAT (basic scope).

On April 18th 2019, the Supervisory Board of PDH Polska S.A. approved the conclusion of a contract with the selected general contractor.

Additionally, in connection with the implementation of the Project Grupa Azoty POLICE will be required to make capital expenditure to, *inter alia*, adapt the energy infrastructure, improve fire safety measures, and reduce the adverse environmental impact of the existing and planned units. Based on current assessment of the Grupa Azoty POLICE Management Board, the expenditure will not exceed PLN 100m.

#### **General Contractor contract for the Polimery Police Project**

On May 11th 2019, PDH Polska S.A. and Hyundai Engineering Co., Ltd. (the "Contractor") signed a lump-sum turn-key contract for the execution of the Polimery Police Project.

The contract provides for EPC execution of the Polimery Police Project, which will consist in the construction of a new petrochemical complex in Police, comprising five sub-projects:

- propane dehydrogenation (PDH) unit,
- polypropylene production (PP) unit,
- polypropylene packaging, storage, logistics and forwarding system,
- auxiliary systems and inter-unit connections,
- handling and storage terminal with port facilities to unload and store propane and ethylene from sea ships.

The contract was signed on an Engineering, Procurement and Construction Lump Sum Turn Key (EPC LSTK) basis. Under the EPC contract, the Contractor is responsible for comprehensive execution, including design and construction, of the new Polimery Police petrochemical complex and for ensuring that the guaranteed parameters defined in licence agreements for the PDH and PP Units are achieved and maintained.

The target capacity of the PDH Unit is 400,000 tonnes of propylene with a purity of 99.6% by volume (polymer grade) per 8,000 hours, and that of the PP Unit - 400,000 tonnes of polypropylene (various grades) per 8,000 hours.

Under the contract, PDH Polska S.A. may also order the execution of an optional work scope, on the terms and conditions and for the price strictly specified in the contract. The total price for the optional scope of work has been set at EUR 35,938 thousand.

The Contractor will receive lump-sum remuneration of EUR 992,811,000 exclusive of VAT (basic scope).

The Contractor's liability for any claims under the contract is limited to 30% of the remuneration. This limit does not apply to liability for non-performance or improper performance of the Contractor's obligations under the warranty, intellectual property rights and non-disclosure obligations, as well as acts or omissions due to wilful misconduct or gross negligence.

The date for the Contractor to commence performing its obligations has been set for August 1st 2019. The Polimery Police project will be commissioned on the basis of an integrity test report signed by the Parties, within forty months from the commencement date.

The total budget of the Polimery Police Project has been estimated at approximately EUR 1.5bn, of which approximately EUR 1.2bn will be capital expenditure. The balance will comprise non-capitalised

operating costs of PDH Polska S.A., finance costs during the construction phase, as well as estimated provisions for debt service and cost overruns, all required under the chosen project finance model.

#### **Letters of intent and investment cooperation agreement concerning financing of the Polimery Police Project**

On April 12th 2019, PDH Polska S.A. received letters of intent from Korea Overseas Infrastructure & Urban Development Corporation (“KIND”) and from Hyundai Engineering Co., Ltd. regarding their potential involvement in the financing of the Polimery Police Project through a contribution to the share capital of PDH Polska S.A. of up to USD 50m by Korea Overseas Infrastructure & Urban Development Corporation and up to USD 80m by Hyundai Engineering Co., Ltd.

On May 10th 2019, the Parent, Grupa Azoty POLICE and PDH Polska S.A. as well as Hyundai Engineering Co., Ltd and KIND signed an investment cooperation agreement which serves as the basis for further talks on Hyundai and KIND’s potential participation in financing the Polimery Police project planned by PDH Polska S.A., through acquisition by Hyundai and KIND of new shares in PDH Polska share capital and making contributions of USD 80m and USD 50m, respectively, to PDH Polska S.A. share capital.

The agreement does not firmly commit the parties to follow through with the contemplated investment. The investment will be conditional, among other things, on the positive outcome of the project due diligence and on whether Hyundai and KIND obtain internal corporate approvals for making the investment. The agreement remains valid until December 1st 2019.

#### **Letter of intent concerning financing of the Polimery Police Project**

On April 26th 2019, the Parent, Grupa Azoty POLICE and PDH Polska S.A. signed a letter of intent with Grupa Lotos S.A. as a starting point for negotiations of Grupa Lotos’ potential involvement in the financing of the Polimery Police Project planned by PDH Polska S.A., by way of Grupa Lotos acquiring new shares in, and contributing up to PLN 500m to the share capital of, PDH Polska S.A.

In accordance with the terms of the letter of intent, the parties will conduct negotiations to agree all material aspects of Grupa LOTOS’ participation in the financing of the Polimery Police Project. The letter of intent does not firmly commit the parties to carry out the contemplated transaction. The letter of intent remains valid until October 31st 2019.

#### **Bid in the tender procedure for the selection of an EPC contractor for the ‘Construction of a Coal-Fired Power Generation Unit’ project**

On April 16th 2019, the Management Board of Grupa Azoty PUŁAWY passed a resolution on preliminary approval of the bid submitted by a Consortium of Polimex-Mostostal S.A., Polimex Energetyka Sp. z o.o. and SBB ENERGY S.A. in the tender procedure for the selection of an EPC contractor for the ‘Construction of a Coal-Fired Power Generation Unit in Puławy’ project, as the basis for further steps related to the project.

On June 26th 2019, the Supervisory Board and, on July 23rd 2019, the Extraordinary General Meeting of Grupa Azoty PUŁAWY approved the budget of the ‘Construction of a Coal-Fired Power Generation Unit’ project, with a total value of up to PLN 1.2bn (VAT exclusive).

On July 23rd 2019, following approval by the General Meeting of Grupa Azoty PUŁAWY of the acquisition of non-current assets with a total value of up to PLN 1.2bn (VAT exclusive), the Management Board of Grupa Azoty PUŁAWY passed a resolution to select, as the best bid in the tender procedure for the selection of an EPC contractor for the ‘Construction of a Coal-Fired Power Generation Unit’, the bid submitted by the Consortium comprising Polimex-Mostostal S.A., Polimex Energetyka July 3rda Sp. z o.o., and SBB ENERGY S.A., quoting a price of up to PLN 1.16bn (VAT exclusive).

The contract signed with the Consortium provides for commencing project execution in September 2019.

The new 100MWe hard coal-fired unit will be built on the premises of Grupa Azoty PUŁAWY’s CHP plant, ensuring energy security to the company, also in the context of its planned investments in the fertilizers and chemicals business.

Fuel for the new generation unit will be procured as part of the company’s existing coal procurement system. The project is expected to be completed within 36 months.

#### **Approval of assumptions underlying the new concept for the “New Heat and Power for ZAK” investment project**

On June 17th 2019, the Group’s Development Committee approved the assumptions of the new concept for using heat generated in the ammonia production process as an alternative to heat generation in the coal boiler system at Grupa Azoty KĘDZIERZYN.

The project is a clarification and correction of the Strategic Initiative “Construction of new generation units”, Task 1: New CHP plant - stage 2: construction of a second coal-fired boiler.

The solution enables the use of heat generated in the ammonia production process to produce electricity. It will eliminate the need to build another coal-fired boiler, allowing Grupa Azoty KĘDZIERZYN to save almost PLN 200m. To implement the project, which will involve the construction of peak load/reserve boilers guaranteeing heat availability in case of extraordinary events, Grupa Azoty KĘDZIERZYN will allocate PLN 282m.

The project is scheduled for completion in 2021.

#### **PGE Energia Odnawialna to build a PV farm with Grupa Azoty SIARKOPOL**

On May 20th 2019, Grupa Azoty SIARKOPOL signed a letter of intent concerning the construction of a photovoltaic farm by PGE Energia Odnawialna (a PGE Group company). A 5 MW unit with an annual generation of 4.97 GWh will most likely generate clean energy for Grupa Azoty SIARKOPOL's own needs. The parties to the letter have not precluded further significant development of the project in the form of a joint venture.

The PV power plant will be built on Grupa Azoty SIARKOPOL's ten-hectare former mining area in the Municipality of Osiek, Province of Kielce. According to preliminary plans, a more detailed cooperation agreement will be signed by the end of 2019, and a power plant with approximately 16,000 photovoltaic panels will be placed in service in mid-2022. It will be one of the largest plants of this type in Poland.

#### **The Parent's debut on the 3D printing material market**

The Parent made a debut on the 3D printing material market with the launch of a product under the trade name ‘Tarfuse’. The product received expert recognition, winning an award at PLASTPOL, the most important fair for the plastics industry. Tarfuse PA is a filament produced from top quality polyamide 6, designed for 3D printing using one of the six available incremental technologies, the FDM (Fused Deposition Modeling) technology. The technology consists in building an item by applying, layer after layer, melted filament (plastic), bonding it with previous layers of the item until a full-size model is developed. Products manufactured from this material can be used in the automotive, electrical engineering and household appliance industries, as well as in medicine. Suitable varieties may be admitted for contact with food.

Multiple applications of the technology in various areas, decreasing unit production cost and seamless connection with the design process contribute to the rapid development of the 3D printing technology, which will also be encouraged by the development and growing availability of increasingly more durable and cheaper materials.

#### ***Material events after the reporting date***

On July 8th, the Parent announced a Force Majeure event with respect to PA6 supplies. following an unexpected defect on one of the polyamide 6 (PA6) production lines.

The failure has affected the PA6 production capacity and thus the product supplies to customers. Steps have been taken to minimise the effect of the event on production processes and to resume the supply of contracted product volumes as soon as possible.

## **4.2. Significant agreements**

The agreements are presented in chronological order.

In H1 2019 and as at the date of this Report for H1 2019, none of the Group companies defaulted on credit facilities or other borrowings or breached any material covenants under significant credit facility or other loan agreements.

### **Significant agreements**

#### **Extension of Individual Contracts with Polskie Górnictwo Naftowe i Gazownictwo S.A.**

On May 23rd 2019, the Parent and its subsidiaries: Grupa Azoty PUŁAWY, Grupa Azoty POLICE, Grupa Azoty KĘDZIERZYN, Grupa Azoty SIARKOPOL (jointly the “Customers” and each separately a “Customer”) submitted representations confirming the extension of the term of bilateral contracts concluded on June 21st 2017 (“Individual Contracts”) to the framework agreement for gas supply signed with Polskie Górnictwo Naftowe i Gazownictwo S.A. (“GNiG”) on April 13th 2016.

As a result of the representations made by the Customers, PGNiG will remain the Grupa Azoty Group's strategic gas supplier until September 30th 2022.

The total value of the Individual Contracts concluded with the Customers is estimated at more than PLN 8bn over their four-year term. The applied pricing formula is based on market gas price indices.

## **Material agreements**

### *Agreements and annexes to contracts of a financial nature*

#### **Annex to the EUR Physical Cash Pooling Agreement (EUR PCP) with PKO BP**

On January 31st 2019, the Parent, acting together with other Grupa Azoty Group companies, and PKO Bank Polski S.A. signed Annex 2 to the EUR Physical Cash Pooling Agreement of November 2nd 2018, as amended. Under the Annex, new Group companies (GZNF Fosfory Sp. z o.o., Grupa Azoty PKCh Sp. z o.o., Grupa Azoty Compounding Sp. z o.o., Grupa Azoty ATT Polymers GmbH, Grupa Azoty SIARKOPOL, Grupa Azoty KOLTAR Sp. z o.o., AGROCHEM PUŁAWY Sp. z o.o., and Grupa Azoty Automatyka Sp. z o.o.) have been covered by the Agreement.

#### **Annex to the PLN Physical Cash Pooling Agreement (PLN PCP) with PKO BP**

On March 5th 2019, the Parent, acting together with other Grupa Azoty Group companies, and PKO Bank Polski S.A. signed Annex 5 to the PLN Physical Cash Pooling Agreement of September 20th 2016, as amended. Under the Annex, a new Group company (SCF Natural Sp. z o.o.) has been covered by the Agreement.

#### **Statement by Compo Expert GmbH on joining the Payments Servicing Agreement with Banco Santander S.A.**

On March 25th 2019, the subsidiary Compo Expert GmbH signed a statement on joining the Payments Servicing Agreement with Banco Santander S.A., which had been concluded on December 14th 2018 by the Parent and the Key Subsidiaries, providing for a maximum limit of PLN 250m to finance trade payables under transactions with the suppliers of the company and other Group companies.

#### **Credit facility agreement with Commerzbank AG**

On May 16th 2019, Goat BidCo GmbH and Compo Expert GmbH signed a EUR 5m credit facility agreement with Commerzbank, valid until terminated, with interest charged at 3M EURIBOR plus 0.9%, without a commitment fee.

#### **Agreement with mBank S.A. for electronic purchase of receivables**

May 27th 2019 saw the termination of the agreement for electronic purchase of receivables of up to EUR 21m from Grupa Azoty ATT Polymers GmbH, concluded between the Parent and mBank S.A. on September 27th 2017.

#### **Debt purchase agreement with ING BSK S.A.**

On June 10th 2019, the Parent and ING BSK S.A. executed a debt purchase agreement for up to EUR 25m in order to refinance the agreement for electronic purchase of receivables from Grupa Azoty ATT Polymers GmbH, signed with mBank, with a final date of September 30th 2030.

#### **Renewal of a credit facility with Banco Sabadell**

On June 14th 2019, Compo Expert Spain S.L. renewed the existing EUR 3m credit facility with Banco Sabadell, valid for one year and bearing interest at EURIBOR + 1.50%, with no commitment fee charged.

### *Insurance agreements*

#### **Trade credit insurance at Grupa Azoty PUŁAWY**

In January 2019, Grupa Azoty PUŁAWY and Towarzystwo Ubezpieczeń Euler Hermes S.A. (TUEH) signed a new global Trade Credit Risk Insurance Contract for the period from February 1st 2019 to January 31st 2020. The contract covers global sale receivables, with the exception of receivables from domestic sales of fertilizers.

Additionally, in May 2019, Grupa Azoty PUŁAWY and TUEH signed a Trade Credit Risk Insurance Contract for the period from July 1st 2019 to June 30th 2020. The insurance covers receivables from domestic sales of fertilizers.

#### **Consolidated Group Insurance Programme with TUW PZUW**

On February 28th 2019, the Grupa Azoty Group companies included in the Grupa Azoty Mutual Insurance Union operating within TUW PZUW executed with TUW PZUW a new Master Agreement for

the Consolidated Property Insurance Programme for a period of three years, i.e. from March 1st 2019 to February 28th 2022, under which policies were issued for the first year, i.e. from March 1st 2019 to February 28th 2020, covering the following lines of insurance:

- all-risk property insurance (ALLR),
- all-risk electronic equipment insurance (EEI),
- loss of profit insurance (ALLR (BI)),
- all-risk machinery insurance (MB).

On June 28th 2019, the Grupa Azoty Group companies included in the Grupa Azoty Mutual Insurance Union operating within TUW PZUW executed with TUW PZUW:

- Property in national and international transit insurance (CARGO) master agreement, for a period of three years, i.e. from July 1st 2019 to June 30th 2022, under which a policy for the first annual insurance period has been issued,
- Contractors/erection all risks (CAR/EAR) insurance master agreement, for a period of three years, i.e. from July 1st 2019 to June 30th 2022,
- Business and property owner's liability insurance (OC) master agreement, for a period of two years, i.e. from July 1st 2019 to June 30th 2021, under which a policy for the first annual insurance period has been issued.

### ***Project co-financing agreements***

- On January 31st 2019, Grupa Azoty PUŁAWY and the Ministry of Investments and Development signed an agreement for co-financing of the 'Strengthening GA Zakłady Azotowe Puławy S.A.'s R&D&I potential' project under the Smart Growth Operational Programme. Total co-financing granted to Grupa Azoty PUŁAWY is PLN 20.6m.
- On March 12th 2019, Grupa Azoty PUŁAWY and the National Centre for Research and Development signed an agreement for co-financing of the 'Development of a technology for the production of liquid fertilizers based on phosphorous bearing materials of sedimentary origin' project, implemented in a consortium with Grupa Azoty POLICE. Total co-financing granted to the consortium is PLN 7.4m.
- On June 3rd 2019, the Parent received a tranche of funding in the amount of PLN 3.8m under an agreement signed on September 2nd 2016 with the Minister of Development, acting as the Managing Authority, to finance the 'Construction of Grupa Azoty's R&D Centre in Tarnów' project, co-financed from the European Regional Development Fund. The project is being implemented under the Smart Growth Operational Programme 2014-2020.

### ***Commercial contracts***

#### **Execution of contract with JSC Belarusian Potash Company**

On January 24th 2019, Grupa Azoty POLICE, a subsidiary of the Parent, and JSC Belarusian Potash Company of Minsk, Belarus, executed a potassium chloride purchase contract.

The value of the contract is estimated at approximately PLN 130m. The contract was concluded for a definite term from January 1st 2019 to June 30th 2019. Under the contract, potassium chloride is to be delivered according to an agreed delivery schedule and commercial terms.

The other terms and conditions of the contract do not differ from standard terms typically applied in such contracts.

#### **Execution of contract for purchase of phosphate rock**

On February 5th 2019, Grupa Azoty POLICE, a subsidiary of the Parent, entered into a trilateral contract with Ameropa AG of Binningen, Switzerland (as the seller) and Somiva SA of Dakar-Yoff, Senegal (as the producer) for the purchase of low-cadmium phosphate rock sourced from Senegal.

The contract was executed for a definite period from February 1st 2019 to February 28th 2021, setting out a specific schedule and other commercial terms of the deliveries. The value of the deliveries to be made under the Contract is estimated at approximately PLN 240m.

The other terms and conditions of the contract do not differ from standard terms typically applied in such contracts.

### **Agreements concluded after the reporting date**

#### **Agreement with BNP Paribas Factor GmbH**

On July 26th 2019, Compo Expert GmbH, together with selected subsidiaries, and BNP Paribas Factor GmbH entered into a European Factoring Programme agreement for up to EUR 50m to refinance the existing factoring agreements and to finance the sale of the Compo Group's European companies' products.

#### Trade credit insurance at Grupa Azoty S.A.

On July 29th 2019, the trade credit insurance policies of the Parent (with coinsurance cover for Grupa Azoty SIARKOPOL, Zakłady Azotowe Chorzów S.A., GNZF Fosfory Sp. z o.o., Agrochem Puławy Sp. z o.o. and the following companies newly included in coinsurance: Grupa Azoty Compounding Sp. z o.o. and Grupa Azoty KOLTAR Sp. z o.o.) as well as Grupa Azoty KĘDZIERZYN, taken out from Korporacja Ubezpieczeń Kredytów Eksportowych S.A. and providing global cover for these companies' receivables, were renewed for the period from August 1st 2019 to July 31st 2021.

#### Urea sale agreement

On August 23rd 2019, Grupa Azoty PUŁAWY entered into a contract for sale of PULREA urea to Kronospan Mielec Sp. z o.o., Kronospan KO Sp. z o.o., Diakol Strazske S.R.O. and Dukol Ostrava S.R.O. (the "Buyers"), effective from July 1st 2019 to June 30th 2023.

In the contract, Grupa Azoty PUŁAWY agreed to deliver the product (PULREA urea), and the Buyers agreed to collect and pay for the product. The contract specifies the minimum amount of the product to be delivered to the Buyers thereunder. Prices will be negotiated on a monthly basis. The estimated value of the contract is approximately PLN 300m (VAT exclusive). The other terms and conditions of the contract do not differ from standard terms and conditions used in contracts of this type.

### 4.3. Sureties for credit facilities or loans, guarantees issued

In the first half of 2019, the Grupa Azoty Group did not issue or amend any guarantees with a significant aggregate value. The total amount of all guarantees issued by the Grupa Azoty Group companies in the reporting period amounted to PLN 4,448 thousand.

#### Material guarantees issued

Guarantee recipient	Total guarantee amount (PLN '000)	Guarantee date	Period for which the guarantee was issued	Financial terms
GAZ-SYSTEM	3,000	May 30 2019	- Aug 30 2019	Security Deposit Agreement

No sureties were issued by the Group in H1 2019.

#### Guarantees

##### Guarantees issued after the reporting date

On August 2nd 2019, the Parent and Grupa Azoty POLICE issued a guarantee (the Parent for up to EUR 10,340 thousand, and Grupa Azoty POLICE for up to EUR 11,660 thousand) to Hyundai Engineering Co., Ltd. The guarantees were issued to protect the beneficiary of the guarantee from the risk of incurring losses which may result from ordering equipment with long delivery times. The guarantees will expire on the earlier of PDH Polska S.A. issuing a notice to proceed or December 30th 2019.

#### Intragroup loans

Acting under the Intragroup Financing Agreement of April 23rd 2015, as amended:

- on February 25th 2019, the Parent disbursed to Grupa Azoty KĘDZIERZYN another tranche, of PLN 8,430 thousand, of the loan to finance the 'Raw gas compressor (GHH)' project,
- on March 28th 2019, the Parent disbursed to Grupa Azoty KĘDZIERZYN tranches of, respectively, PLN 5,500 thousand and PLN 4,300 thousand, of the loan to finance projects implemented at the Fertilizers Production Unit and the Oxoplast Business Unit,
- and on April 15th 2019, the Parent disbursed to Grupa Azoty KĘDZIERZYN a tranche of PLN 4,380 thousand of the loan to finance projects implemented at the Fertilizers Production Unit,
- on May 27th 2019, the Parent disbursed to Grupa Azoty KĘDZIERZYN another tranche, of PLN 10,000 thousand, of the loan to finance the 'Upgrade of the synthesis gas compression unit supplying the Ammonia Plant' project.

- on May 27th 2019, the Parent disbursed to Grupa Azoty KĘDZIERZYN another tranche, of PLN 4,500 thousand, of the loan to finance the investment project 'Upgrade of the partial combustion unit at the Ammonia Department',
- on May 27th 2019, the Parent disbursed to Grupa Azoty KĘDZIERZYN another tranche, of PLN 3,150 thousand, of the loan to finance the investment project 'Adaptation of continuous FDO unit to periodic production of Oxoviflex' at the Oxoplast Business Unit.

### **Letters of credit**

On March 13th 2019, under a letter of credit issued on September 11th 2018 by PKO BP S.A. at the instruction of Grupa Azoty PUŁAWY, within the framework of a multi-purpose credit facility agreement, EUR 1,056 thousand was paid to the supplier of drum equipment for the mechanical granulation unit. As at June 30th 2019, the outstanding credit balance under the letter of credit was EUR 0.

In April 2019, PKO BP S.A. extended the validity of the EUR 2,040 thousand import letter of credit issued at the request of Grupa Azoty PUŁAWY by three months, i.e. to July 5th 2019. The beneficiary of the letter of credit is the vendor of a CO<sub>2</sub> condensation and purification unit. As at June 30th 2019, the outstanding credit balance under the letter of credit was EUR 170,000. The letter of credit was issued under the multi-purpose credit facility agreement concluded with PKO BP S.A.

On April 9th 2019, EUR 94 thousand was paid under the letter of credit issued by PKO BP S.A. at the request of Grupa Azoty PUŁAWY for the amount of EUR 1,414.5 thousand. The beneficiary of the letter of credit was the supplier of equipment for the nitric acid neutralisation unit. As at June 30th 2019, the outstanding credit balance under the letter of credit was EUR 0. The letter of credit was issued under the multi-purpose credit facility agreement concluded with PKO BP S.A.

On April 29th 2019, at the request of Grupa Azoty KĘDZIERZYN, PKO BP S.A. issued a EUR 2,251 thousand letter of credit under the multi-purpose credit facility agreement. The letter of credit is to secure the equipment to be delivered under an agreement with a supplier and is valid until November 30th 2020.

## **4.4. Shareholding structure**

Number and par value of shares as at the issue date of this Report:

- 24,000,000 Series AA shares with a par value of PLN 5 per share,
- 15,116,421 Series B shares with a par value of PLN 5 per share,
- 24,999,023 Series C shares with a par value of PLN 5 per share,
- 35,080,040 Series D shares with a par value of PLN 5 per share.

The total number of Parent shares is 99,195,484 bearer shares (ISIN code PLZATRM00012).

Below are listed shareholders holding directly, or indirectly through subsidiaries, at least 5% of total voting rights at the General Meeting as at the date of this Report, along with information on the number of shares held by such entities, their respective ownership interests, the number of voting rights held, and their share in total voting rights at the General Meeting.

### **Shareholding structure as at May 23rd 2019 (issue date of the most recent financial report)**

Shareholder	Number of shares	Ownership interest (%)	Number of votes	% of voting rights
State Treasury	32,734,509	33.00	32,734,509	33.00
ING OFE	9,883,323	9.96	9,883,323	9.96
Norica Holding S.à r.l. (indirectly: 19,657,350 shares or 19.82%)	406,998	0.41	406,998	0.41
Rainbee Holdings Limited <sup>*)</sup>	9,820,352	9.90	9,820,352	9.90
Opansa Enterprises Limited <sup>l)</sup>	9,430,000	9.51	9,430,000	9.51
TFI PZU S.A.	8,530,189	8.60	8,530,189	8.60

Other	28,390,113	28.62	28,390,113	28.62
<b>Total</b>	<b>99,195,484</b>	<b>100.00</b>	<b>99,195,484</b>	<b>100.00</b>

<sup>\*)</sup> Direct subsidiary of Norica Holding S.à r.l.

In the period from May 23rd 2019 to the issue date of this Report, the Parent was not officially notified of any changes in major holdings of its shares.

The actual shareholding structure may differ from that presented if there were no events giving rise to a shareholder's obligation to disclose a new shareholding or if, despite the occurrence of such events, a shareholder failed to provide relevant information.

#### 4.5. Parent shares held by management and supervisory personnel

As at the end of the reporting period (June 30th 2019) and as at the date of this Report, no member of the Parent's Management and Supervisory Boards held any shares in the Parent.

#### 4.6. Composition of the management and supervisory bodies

##### Parent's Management Board

Composition of the Management Board as at January 1st 2019:

- Wojciech Wardacki - President of the Management Board,
- Witold Szczypiński - Vice President of the Management Board,
- Mariusz Grab - Vice President of the Management Board,
- Grzegorz Kądziałowski - Vice President of the Management Board,
- Paweł Łapiński - Vice President of the Management Board,
- Artur Kopeć - Member of the Management Board.

On June 12th 2019, the Supervisory Board appointed Tomasz Hryniewicz as Member of the Parent's Management Board. The Supervisory Board appointed Tomasz Hryniewicz as Vice President of the Company's Management Board, with effect from July 5th 2019.

Therefore, as at the date of this report, the Company's Management Board consisted of:

- Wojciech Wardacki - President of the Management Board,
- Witold Szczypiński - Vice President of the Management Board,
- Mariusz Grab - Vice President of the Management Board,
- Tomasz Hryniewicz - Vice President of the Management Board,
- Grzegorz Kądziałowski - Vice President of the Management Board,
- Paweł Łapiński - Vice President of the Management Board,
- Artur Kopeć - Member of the Management Board.

##### Powers and responsibilities of the Parent's Management Board and Supervisory Board members

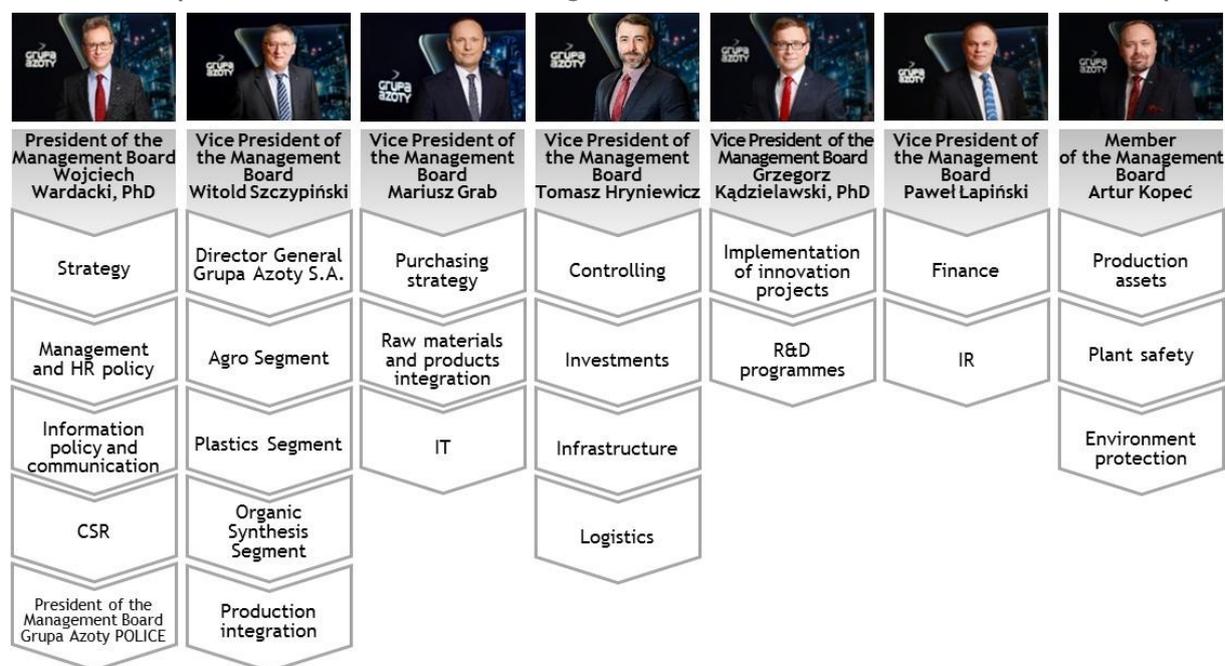
On June 28th 2018, the Company's Management Board passed a resolution establishing the following division of responsibilities between the Management Board members:

- Wojciech Wardacki - President of the Management Board, responsible for overall supervision and management of the Group, as well as for the strategy and corporate governance, including exercise of majority shareholder power, human resources management, communication and corporate image (which also covers public relations and CSR),
- Witold Szczypiński - Vice President of the Management Board, Director General of the Parent, responsible for integration of production processes, the Agro Segment, the Plastics Segment, and the Organic Synthesis Segment,
- Mariusz Grab - Vice President of the Management Board, responsible for formulation and implementation of the procurement strategy, logistics, and raw material and product integration,
- Grzegorz Kądziałowski - Vice President the Management Board, responsible for development of infrastructure and R&D programmes,
- Paweł Łapiński - Vice President of the Management Board, responsible for finance, controlling, IT, investor relations, M&A, growth strategy, and oversight of investment projects,
- Artur Kopeć - Member of the Management Board, responsible for production assets, plant safety, environmental protection, critical infrastructure, and social dialogue.

Following the appointment of Tomasz Hryniewicz to the Parent's Management Board, on June 19th 2019 the Company's Management Board passed a resolution establishing the following division of responsibilities between the Management Board members:

- Wojciech Wardacki - President of the Management Board: formulating and supervising the implementation of the Strategy, management of the Group, exercise of ownership powers, supervising the implementation of the HR strategy and policy, supervision of information, communication and image policies, CSR, managing risk processes, coordination of the internal audit function,
- Witold Szczypiński - Vice President of the Management Board, Director General of the Parent: managing and coordinating integration of production processes, the Agro Segment, the Plastics Segment and the Organic Synthesis Segment,
- Mariusz Grab - Vice President of the Management Board: formulation and implementation of the procurement strategy, raw material and product integration, IT,
- Grzegorz Kądziałowski - Vice President the Management Board: innovation and R&D programmes,
- Paweł Łapiński - Vice President of the Management Board: finance and investor relations,
- Tomasz Hryniewicz - Vice President of the Management Board: controlling, investment project implementation, infrastructure and logistics,
- Artur Kopeć - Member of the Management Board: production assets, plant safety and environmental protection.

#### Division of responsibilities between the Management Board members as at the date of this report



Source: Company data.

#### The Supervisory Board

As at January 1st 2019, the Supervisory Board was composed of:

- Tomasz Karusewicz - Chairman of the Supervisory Board,
- Michał Gabryel - Deputy Chairman of the Supervisory Board,
- Zbigniew Paprocki - Secretary of the Supervisory Board,
- Piotr Czajkowski - Member of the Supervisory Board,
- Monika Fill - Member of the Supervisory Board,
- Robert Kapka - Member of the Supervisory Board,
- Bartłomiej Litwińczuk - Member of the Supervisory Board,
- Ireneusz Purgacz - Member of the Supervisory Board,
- Roman Romaniszyn - Member of the Supervisory Board.

On February 26th 2019, Tomasz Karusewicz resigned as Chairman and Member of the Supervisory Board. No reasons for the resignation were given. On the same day, by way of a resolution of the Parent's Extraordinary General Meeting, Ireneusz Purgacz was removed from the Supervisory Board.

At the same time, by way of resolutions of the Parent's Extraordinary General Meeting, the following persons were appointed to the Supervisory Board:

- Paweł Bielski,
- Marcin Pawlicki.

By way of the Annual General Meeting's resolution of June 27th 2019, Marcin Pawlicki was appointed Chair of the Supervisory Board.

As at the date of this report, the Parent's Supervisory Board consisted of:

- Marcin Pawlicki - Chairman of the Supervisory Board,
- Michał Gabryel - Deputy Chairman of the Supervisory Board,
- Zbigniew Paprocki - Secretary of the Supervisory Board,
- Paweł Bielski - Member of the Supervisory Board,
- Piotr Czajkowski - Member of the Supervisory Board,
- Monika Fill - Member of the Supervisory Board,
- Robert Kapka - Member of the Supervisory Board,
- Bartłomiej Litwińczuk - Member of the Supervisory Board,
- Roman Romaniszyn - Member of the Supervisory Board.

The Supervisory Board operates on the basis of:

- Commercial Companies Code of September 15th 2000 (Dz.U. No. 94, item 1037, as amended),
- Act of August 30th 1996 on Commercialisation and Certain Employee Rights,
- Accounting Act of September 29th 1994,
- Company's Articles of Association,
- Rules of Procedure for the Company's Supervisory Board.

#### **Supervisory Board's Audit Committee**

The Audit Committee was appointed on July 4th 2013 by resolution of the Supervisory Board in order to streamline the work of the Supervisory Board and improve control of the Parent and the Group.

Composition of the Audit Committee as at January 1st 2019:

- Ireneusz Purgacz - Chair,
- Michał Gabryel - Member,
- Tomasz Karusewicz - Member.

Following changes in the composition of the Supervisory Board made on February 26th 2019, on March 7th 2019 the Supervisory Board passed a resolution to fill the vacancy on the Audit Committee and appoint its Chair. The Supervisory Board appointed Marcin Pawlicki and Paweł Bielski to the Committee. It also appointed Michał Gabryel as Chair of the Audit Committee.

As a result, as of March 7th 2019, the Audit Committee is composed of:

- Michał Gabryel - Chair,
- Marcin Pawlicki - Member,
- Paweł Bielski - Member.

#### **Responsibilities of the Audit Committee**

The Audit Committee operates pursuant to the Rules of Procedure for the Audit Committee, adopted by the Supervisory Board by way of a resolution of July 4th 2013. The main tasks of the Committee include:

- Monitoring of the financial reporting process;
- Monitoring of the effectiveness of the Company's internal control, internal audit and risk management systems;
- Monitoring of financial audit;
- Monitoring of the independence of the auditor and the entity qualified to audit financial statements;
- Monitoring of the audit of full-year separate and consolidated financial statements;
- Monitoring of the work and reports of the independent auditor,
- Analysing selected economic events relevant to the Company's operations.

#### **Other Supervisory Board's committees**

On February 1st 2018, the Supervisory Board resolved to establish a Strategy and Development Committee and a Nomination and Remuneration Committee.

As at January 1st 2019, the Strategy and Development Committee was composed of:

- Robert Kapka - Chair,
- Piotr Czajkowski - Member,
- Zbigniew Paprocki - Member.

On March 29th 2019, the Supervisory Board appointed Paweł Bielski to the Strategy and Development Committee.

Following the appointment, the composition of the Audit Committee is as follows:

- Robert Kapka - Chair,
- Paweł Bielski - Member,
- Piotr Czajkowski - Member,
- Zbigniew Paprocki - Member.

As at the date of this report, the Nomination and Remuneration Committee was composed of:

- Bartłomiej Litwińczuk - Chair,
- Piotr Czajkowski - Member,
- Monika Fill - Member,
- Roman Romaniszyn - Member.

## 5. Supplementary information

### Management Board's position on the achievement of forecasts

As no forecasts for 2019 were published, the position of the Parent's Management Board concerning achievement of such forecasts is not presented.

### Litigation

There are no material court, arbitration or administrative proceedings pending with respect to any of the Group companies that would concern liabilities or debt claims as referred to in the Regulation of the Minister of Finance of April 20th 2018 on current and periodic information (Dz.U. of 2018, item 757).

### Parent's branches

The Company does not operate non-local branches or establishments.

### Shares, share issues

In H1 2019, the Parent did not issue, redeem or repay any debt or equity securities. The Company had spent the proceeds from Public Offerings by the end of 2013. The proceeds were used in line with the original issue objectives.

There are no agreements known to the Company which may cause future changes in the percentages of shares held by the existing shareholders and bondholders.

The Company does not operate any control system for employee share ownership plan.

### Dividend

On May 9th 2019, the Parent's Management Board passed a resolution on allocation of the Company's net profit for the financial year 2018, proposing that the Company's net profit for the financial year 2018, of PLN 171,064 thousand, be fully contributed to the Company's reserve funds, despite the Company's commitment to dividend payments declared in its dividend policy. The profit retention will allow the Company to maintain a position of financial security in the context of its investment plans, especially its ability to finance the equity contribution to the Polimery Police Project.

On May 17th 2019, the Company's Supervisory Board gave a favourable opinion on the proposal of the Company's Management Board to the Annual General Meeting to allocate the entire net profit for the financial year 2018 to the Company's reserve funds.

On June 27th 2019, the Company's Annual General Meeting passed a resolution to allocate the entire amount of the Parent's net profit for the financial year 2018, of PLN 171,064 thousand, to the Company's reserve funds.

This Directors' Report on the operations of the Grupa Azoty Group in the first half of 2019 has 53 pages.

## Signatures of members of the Management Board

*Signed with qualified electronic signature*

.....

Wojciech Wardacki, PhD

*President of the Management Board*

*Signed with qualified electronic signature*

.....

Mariusz Grab

*Vice President of the Management Board*

*Signed with qualified electronic signature*

.....

Grzegorz Kądziaławski, PhD

*Vice President of the Management Board*

*Signed with qualified electronic signature*

.....

Artur Kopeć

*Member of the Management Board*

*Signed with qualified electronic signature*

.....

Witold Szczypiński

*Vice President of the Management Board,*

*Director General*

*Signed with qualified electronic signature*

.....

Tomasz Hryniewicz

*Vice President of the Management Board*

*Signed with qualified electronic signature*

.....

Paweł Łapiński

*Vice President of the Management Board*

Tarnów, September 4th 2019