2022 ANNUAL REPORT

PCC ROKITA

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LETTER FROM THE MANAGEMENT BOARD

Dear Investors, Ladies and Gentlemen!

We would like to present the annual report for 2022, which was an extremely good year for PCC Rokita. It was another period in which we broke our own records, continuing the increases from previous years. The diversification of activities contributed to our achievement of historical profits. This differentiation is embedded in our business strategy.

Ten years have passed from the launch of PCC Rokita shares on the Warsaw Stock Exchange, and in this time, both the EBITDA and net profits have increased almost tenfold. During this period, we paid out a total of over PLN 50 in dividends per share, and we would like to reiterate the share price at their launch was PLN 33. The 2022 results brought more high, round numbers, the consolidated EBITDA level exceeded one billion, while the Group's sales were over three billion. Net profit has never been so high, reaching over PLN 675 million.

In terms of operating results in 2022, the leader was the Chlorine Derivatives segment, for which the entire past year was very successful. The situation on the chloralkali market was extremely favourable. This market recorded very high demand and record-breaking prices of products with a simultaneous reduced supply. Lye market prices reached historic highs. Caustic soda – the second key product in this segment – also recorded price peaks. At the same time, there were high prices of electricity, which is a key medium in the production of chloralkali.

The segment generated record results in 2022, and the EBITDA result was four times higher than the previous year. It reached approximately PLN 794 million and had an almost-80% share in the overall EBITDA profits of the Group. In the past year, this segment saw record sales of soda lye, and the high demand for all its products was conducive to maintaining high production levels.

Currently, soda lye prices are lower than at the end of 2022, although they are still at very high levels historically. At the moment, the availability of this product is still limited, but at the same time there is a noticeably lower market demand. Drops in caustic soda prices have also been recorded; however, these are still relatively high price levels.

In the next production segment of the Group, which is the polyurethanes segment, the past year brought declines. It should be borne in mind that we are comparing 2022 results with those of 2021, which were historically the best, and thus constituted a very high starting point. The segment's profit for 2022 amounted to nearly PLN 163 million, and was 55% lower than in 2021.

For the Polyurethanes segment, the entire last year was very varied. The strong start of 2022 allowed us to fully use our production capacity and generate good margins. With every subsequent quarter, the polyurethanes market situation deteriorated. This was related to both decreasing demand and increasing competition among polyol

producers and the resulting falling market prices of products. At the same time, the prices of some key raw materials were rising. As a result of these factors, profitability throughout 2022 dropped. Currently, the market is seeing limited demand and an oversupply of polyols. Asian competition in the scope of raw materials and ready polyols is proving to be a challenge for European producers. Of course, as always, we are striving to adapt the production portfolio to current conditions.

On the other hand, the Other Chemical Activities segment in the presented period achieved record results. Turnover, margins and financial results were high. These good results were driven by increases in the prices of the segment's products and exceptionally high margins, even on less-specialised products. Sales of specialty products also had a positive impact on the results. The company is considering increasing its production potential in this area. The current economic slowdown, including falling demand, high volatility of raw material prices and increasing competition from outside Europe may affect the segment's results in subsequent periods, despite the favourable structure of the product portfolio.

We are in the process of implementing an investment to build a new universal plant in Brzeg Dolny. This project is being run by PCC BD Sp. z o.o., in which PCC Rokita and PCC EXOL hold 50% shares. The project is currently at the stage of designing individual elements of the installation, and the first construction works are in progress at the same time. At the current stage of work, not all design aspects have been determined yet. Given the unstable macroeconomic environment, we are analysing potential scenarios in various hypothetical cost variants. All of these circumstances are resulting in the belief that the final investment costs will be higher than initial estimates.

Despite this, the project is currently being implemented as per schedule. However, it cannot be ruled out that circumstances may arise that may potentially affect the modification of the schedule as well as the scope of the project or production volumes. At present, the Company does not expect currently known conditions to prevent the implementation of the investment.

We can also boast about investments that are part of sustainable development. These are projects completed in the second half of 2022 – the construction of a hydrogen-gas boiler house dedicated to the production of process steam. Ultimately, the investment is aimed at reducing the amount of coal used and CO2 emissions, as the heating fuel for the boiler house is excess hydrogen produced in the Chlorine Derivatives segment.

In addition, within the field related to energy security, we are analysing, among others, investments in our own renewable energy sources, including the construction of a photovoltaic farm. We are

also continuing the investment in the construction of the Centre for Innovation and Process Scaling. The new Centre is intended to increase the current laboratory space almost threefold.

The year 2023 is bringing many unknowns regarding the markets on which the Company operates. The macroeconomic situation, including that of raw material markets, is complex. The market of energy resources and electricity will potentially create challenges for European chemical companies, which may find it increasingly difficult to compete with Asian producers. We have ambitions to implement business plans, including investments, to maximise and develop our own potential and take advantage of market opportunities.

Thank you for this very successful year. Please read the entire report.

Rafał Zdon
Vice-President of the Management Board

Wiesław Klimkowski
President of the Management Board

SUMMARY OF OPERATIONS IN 2022

POLYURETHANES SEGMENT

The last year in the Polyurethanes segment was, above all, very diversified. At the beginning of the year, full production capacity was still being used and good margins were being achieved. Later in the year, demand declined and competition intensified, including from manufacturers in Asia.

At the same time, it is worth reiterating that the results of this segment in 2022 are being compared with the results for 2021. These were historically the best, and represent a very high base of comparison.

The EBITDA result for 2022 in the Polyurethanes segment ranks as the second record result.

Polyether polyols

The situation in the first half of 2022 on the flexible foams market, which is the most-important market for the segment, allowed for good sales level with high capacity utilisation and relatively good margins, despite the fact that market demand for polyether polyols was not as high as in 2021.

In the middle of the previous year, however, there was a clear collapse of the market. Within a short period, demand in the furniture industry fell. In addition, the prices of propylene and ethylene, which are the main components of key base raw materials for the production of polyether polyols, as well as propylene oxide and ethylene oxide, increased significantly in the first half of 2022. At the same time, the possibilities for increasing polyol prices were limited, and sometimes impossible. In the second half of the year, declines in propylene and ethylene prices were already visible; however, the rate of reduction of the prices of key raw materials was much lower than that of the prices of polyols on the market, which resulted in lower margins. Thus, the profitability of polyols dropped very significantly.

In the second half of the year, some clients had unplanned periodic downtimes due to rapidly falling consumer demand. In addition, the first signs appeared of the import of polyols and TDI from outside Europe, where production costs were significantly lower.

The downward trend in polyol prices was temporarily halted in September last year. In addition, there was a slight uptick in demand, which was explained as being due to, among other factors, the end of the holiday season. However, this was not a clear change, and the demand on the market remained unclear, and was intensified by the ongoing insufficient availability of TDI.

In the last quarter of 2022, the competition on the market intensified, and the profitability of the segment, which had been falling throughout the year, was the lowest. However, it is worth noting that the results for the previous year are compared with the results for 2021, which constituted an exceptionally high base.

In the near future, the situation of the Chinese economy will be a determining factor, including its post-Covid opening and privileged position due to access to cheaper raw materials. This can lead to significant economic changes and displacement of European concerns.

The Company is monitoring the situation on the market on an ongoing basis, and is striving to adapt its production portfolio to current requirements.

Polyester polyols (until 2 January 2023 PCC PU)

The beginning of 2022 was traditionally associated with a low winter season; however, it was very successful in terms of sales. Sales in the first half of the year closed with the best volume result in history. Until the end of the third quarter, market changes such as declines in the furniture industry were not seen in the insulation panel industry. From the fourth quarter of last year, demand decreased, which is, however, a natural phenomenon, because in the winter period, less building materials are ordered and produced.

On 2 January 2023, PCC PU merged with PCC Rokita. This merger was aimed at optimising the Group's operations in the Polyurethanes segment.

Polyurethane systems (PCC Prodex)

The year 2022 brought challenges for PCC Prodex. After the war in Ukraine broke out, there was a period of uncertainty in the construction market.

In three quarters of last year, the Company experienced a decrease in margins caused by weakened demand in its key sector of spray insulation. In the fourth quarter, demand for spray insulation increased due to the need to install thermal insulation in projects of single-family houses under construction.

On the other hand, in the area of industrial insulation and other polyurethane systems intended for use outside construction, demand did not decrease in the second half of 2022 despite earlier signals from some clients about possible drops.

Polyurethanes segment outside of Europe (IRPC Polyol)

Asia's market situation, including the raw materials situation, differs significantly from that of Europe. Propylene oxide – the main raw material for the production of polyether polyols – is usually much cheaper there.

IRPC Polyol started last year at a good volume level; however, with lower profitability than expected.

Although the results of IRPCP deteriorated at the end of 2022, the entire past year was a positive period in terms of results achieved. Due to the fact that IRPC Polyol operates mainly in Southeast Asia, its competitive position should be compared with Asian companies.

CHLORINE DERIVATIVES SEGMENT

The year 2022 was a very successful time for the Chlorine Derivatives segment. The activity of the segment was supported by the situation on the chloralkali market, which recorded very high demand and historically highest product prices. **The segment generated record results – the EBITDA result was four times higher than the previous year.**

Sales of soda lye were record breaking. At the same time, the high demand for all products in the segment was conducive to maintaining a high level of production.

In addition, in the area of the raw materials market, the prices of electricity, which is a key medium for the Chlorine Derivatives segment, were very high. In the past, dynamic year, the energy crisis in Europe, which has been going on since 2021, was reinforced by the war in Ukraine, and had a huge impact on the chloralkali market. However, the very wide use of chloralkalis due to their universal nature in practically the majority of industries means that their rising prices did not significantly reduce demand for most of the year.

At this time was, ensuring the availability of products turned out to be of key significance for the market. What is important is the specifics of the production of soda lye, which, together with chlorine and hydrogen, is produced simultaneously in a constant, unchanging proportion in the process of salt electrolysis. In the case of PCC Rokita, chlorine and hydrogen – due to logistic constraints – are mostly consumed on the premises of the plant, which is an advantage. On the other hand, soda lye is mostly sold outside the plant.

Therefore, in a situation where other Western European producers of soda lye in 2022 had problems balancing chlorine, and were additionally affected by high energy costs, the market supply of both soda lye and chlorine decreased last year, which created a favourable situation for the Chlorine Derivatives segment. The advantage was the unique structure of internal chlorine consumption, and PCC Rokita kept up significantly higher levels of production of soda lye and other chlorine derivatives compared with the competition.

Ensuring the continuity of production for its clients not only brought record results, but also strengthened the Company's position as a reliable supplier and expanded the portfolio of its clients.

Sodium lye

From the beginning of 2022, a clear upward trend in the market prices of soda lye was visible from quarter to quarter. This started at the end of 2021. The increase in prices culminated in the fourth quarter of last year, when ultimately they were up to three times higher than those from the beginning of that year. The factor affecting the market prices of soda lye was limited availability and rising production costs..

The average sale price of soda lye in 2022 compared with the previous year was

228% higher

Due to the differences in sales prices between soda lye and caustic soda, the Company increased the sales volume of soda lye at the expense of caustic soda sales.

Caustic soda

The global overseas soda market, which is where the Company mainly operates, is dominated by main competitors from China and India, which have the greatest influence on the prices of caustic soda around the world. Considering the declining competitiveness of the Company on overseas markets due to high transport costs and higher prices obtained from the sale of soda lye, the

Company reduced production and sales volume of caustic soda, minimising it in the second half of last year.

The Company also delivers approximately 10–20% of caustic soda in Europe. The increase in electricity and heat prices, mainly in Europe, had a significant impact on the increase in the cost of caustic soda production, which in turn translated into higher prices in this region. Ultimately in 2022, the sales prices of caustic soda were higher by approximately 112% than in 2021, reaching record levels.

Chlorine

One of PCC Rokita Group's most important goals is the internal balance of chlorine consumption. The segment is seeking to achieve this goal by expanding production in its other plants, as well as by increasing supplies to the Other Chemical Activities segment and to PCC MCAA Sp. z o.o.

At the same time, the Group is aiming to maintain cooperation with existing chlorine tanker recipients and those purchasing chlorine in smaller packages, as well as to acquire new long-term contractors in order to diversify sales and ensure high production.

Other products

Other products in the segment include hydrochloric acid, chlorobenzenes, including monochlorobenzene, and hydrogen.

Due to production restrictions in Europe in the second half of 2022, the availability of hydrochloric acid decreased dramatically.

Thanks to owning two dedicated syntheses of hydrochloric acid, and its many years of presence on the hydrochloric acid market, the Company was able to achieve an average selling price 304% higher compared with 2021. It is expected that prices will remain high in the near future due to fears of continuing limited availability of hydrochloric acid.

The Company is continuing to increase the sales of chlorobenzenes compared with recent years, and is implementing a market diversification strategy. Among other things, it is intensifying sales of the product in the US.

Because it rents a dedicated tank in that area, the Company recorded a 4% higher sales volume compared with 2021.

On the other hand, hydrogen is produced through membrane electrolysis, and is used to produce caustic soda in a production plant, and as a raw material in the production of hydrochloric acid. In addition, it is delivered to PCC MCAA as a raw material. Thanks to the commissioning of the hydrogen-gas boiler, PCC Rokita uses virtually all of the hydrogen produced in the electrolysis process.

OTHER CHEMICAL ACTIVITIES SEGMENT

In 2022, the Other Chemical Activities segment achieved record turnover and financial results, despite the fact that it was a period of dynamic market changes and considerable uncertainty related to the current geopolitical situation.

In 2022, the turmoil associated with the high fluctuation of the prices of the main raw material (phosphorus) and periodic problems with its availability resulted in the limited supply of basic semi-finished products on the European market. The Company managed to secure liquid supplies of phosphorus, thanks to which the liquidity of production remained steady. This situation led to a significant increase in the prices of some of the segment's products, and allowed us to generate exceptionally high margins, even for less-specialised products, which had a significant impact on the increase in the segment's result for the entire 2022. As the availability of phosphorus improved, the situation began to gradually return to normal.

In addition, the very good results of the segment were also impacted by the very good (despite an unfavourable market situation) sales in highly specialised additives to sectors such as plastics processing, production of technical protective coatings, specialised applications for polyurethanes, and production of lubricants and hydraulic fluids. This was possible thanks to the major research and development project, which was completed in 2020 and culminated in the construction of a pilot installation for the demonstration of a dozen or so new technologies.

The rising share of specialty products in the structure of the product portfolio not only had a positive impact on the good current result of the segment, but above all, it increased business stability and security in the long term. Therefore, in 2022, research projects aimed at expanding the product portfolio in the field of specialty additives were continued. These are also reasons for considering further steps towards strengthening the Company's position in this area. In the light of the above, conceptual work has been undertaken on a possible increase in production capacity in the group of phosphorus-derived products.

The year 2022 was an exceptionally unstable period for raw materials. There were problems with both crude oil-derived raw materials, as well as those of plant and coal origin, and even packaging. This was particularly strongly felt in the case of one of the main raw materials - yellow phosphorus. However, thanks to immediate actions, the Company managed to acquire sufficient amounts of phosphorus and maintain continuity of production, as well as to secure the raw material for the coming months.

The Other Chemical Activities segment sells its products mainly on the European market and, to a lesser extent, in Asia and North America. The segment is facing increasingly strong pressure from competitors in, among others, China, India and the US. Large fluctuations in raw material prices and instability in this area (combined with rising energy costs) may reduce the attractiveness of European producers and their ability to effectively compete with non-European companies, which may also affect the segment's results in the future.

INVESTMENT

For years, PCC Rokita has been investing in the modernisation of equipment, installations and processes, including those aimed at improving energy efficiency.

Production segments

In 2022, a number of smaller investment projects were carried out in the Polyurethanes segment, for example, a project to improve operating activities, such as a warehouse yard, preparations to replace the filtration method in the production system, and modernisation of the tank at the prepolymer installation. Last year, capital expenditures in the Polyurethanes segment amounted to PLN 15.1 million.

In the Chlorine Derivatives segment, in 2022, investments related to the modernisation of installations continued. Activities focused on optimising production, the supply chain and the storage of products and key raw materials. Some of these tasks were related to production control systems. Their implementation will allow for further process optimisation.

PCC Rokita is currently analysing the implementation of an investment project aimed at increasing the production capacity of membrane electrolysis and other chlorine-intensive installations. In addition to creating an opportunity to increase the sales of chloralkalis, the project is expected to bring measurable benefits related to the reduction of the unit consumption of electricity. In 2022, expenditures

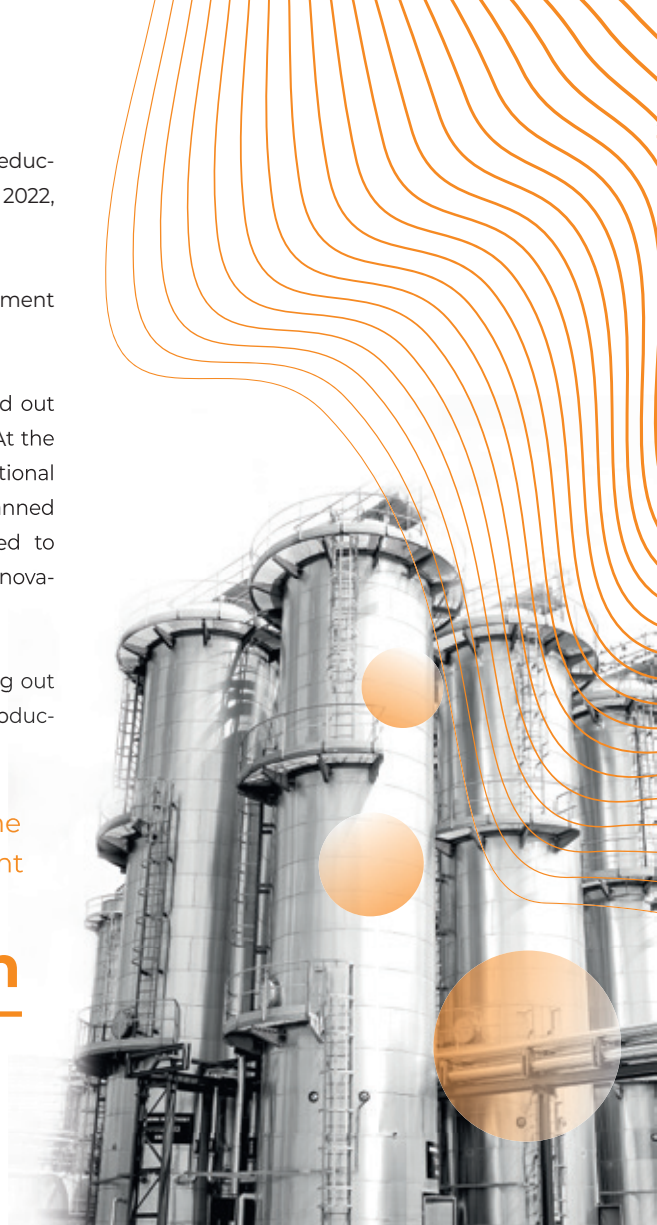
investments in the Chlorine Derivatives segment amounted to PLN 38.5 million.

Last year, modernisation works were carried out in the Other Chemical Activities segment. At the same time, work was carried out on additional optimisations aimed at achieving the full planned production capacity of the pilot line used to demonstrate a technology for obtaining innovative products.

Within this segment, the Group is not ruling out further investments aimed at increasing production capacity.

In 2022, capital expenditures in the Other Chemical Activities segment amounted to

PLN 8.4 million



Energy

Investments in the Energy segment are related to the technical modernisation of installations, and allow further optimisation of the process. They also contribute to meeting increasing environmental requirements.

In 2022, the Company implemented an investment in the construction of a hydrogen and gas boiler house with a capacity of 10.5 MW, producing process steam for its own needs.

The most important aspect of this investment is the possibility of using excess hydrogen produced by the existing production installation in the Chlorine Derivatives segment as a heating fuel. The boiler house can also be fired with a mixture of hydrogen and natural gas in the range of 30–100% share in the nominal power of the boiler for each fuel, as well as with natural gas alone.

The hydrogen-gas boiler house implements solutions that improve energy efficiency by recovering heat from flue gases directed to the chimney for heating supplementary water, and reduces CO_2 emissions.

In 2022, technical arrangements were made for the delivery of a new low-parameter gas boiler house (powered only with natural gas) with a net steam capacity of 50 t/h. The boiler house is planned to start up in the second quarter of 2023. The basic task of the boiler house will be the production of steam for the process steam network of the plant in the event of a failure or planned shutdown of the combined heat and power plant. In addition, it will allow us to secure the peak demand of steam recipients.

In 2022, the construction of the above-ground natural gas network (1.5 km in length) and the replacement of the nitrogen pipeline (1.65 km in length) were carried out on the site of the plant, and the modernisation of the pumping station was completed.

At present, we are continuing to analyse the Company's potential development directions aimed at securing its energy needs in subsequent years. The company is considering investment projects in its own renewable energy sources.

In addition, the Company is not ruling out the possibility of concluding a long-term contract for the purchase of energy from renewable sources. At the same time, analyses are underway regarding efficiency and energy projects aimed at limiting the need for thermal energy and electricity.

Given the changes in the climate policy of the European Union regarding an increased CO_2 emission reduction target by 2030 (the "Fit for 55" package) and in the light of rapidly rising prices on the CO_2 Company the Company cannot rule out future investment in the scope of changing

units producing thermal energy (process steam, heating water) and electricity.

PCC Rokita seeks to minimise its impact on the climate by significantly reducing carbon dioxide-equivalent emissions of the electricity consumed. This will be achieved by decreasing the energy consumption of technological processes, as well as by changing the structure of the electricity used and gradually moving away from fossil fuels towards renewable energy, both in terms of self-produced energy and energy purchased from external sources.

In 2022, the outlays incurred on investments in the Energy segment were PLN 97.6 million, which included the purchase of CO_2 emission allowances of

PLN 68 million

Other activities

As part of the Other Activities segment, the main investment tasks related to it are aimed at ensuring the ongoing operation of the plant, both in terms of ensuring the proper condition of the infrastructure and compliance with the legal regulations imposed on the core activity.

An important project is the construction of the Centre for Innovation and Scaling of Processes, thanks to which the laboratory space we possess is to be almost tripled.

Investments are being consistently made in the modernisation of the power grid infrastructure related to the distribution and transmission of electricity in the industrial area in Brzeg Dolny. The company also conducts ongoing replacement investments related to the modernisation of buildings, roads and overpasses.

In 2022, PCC BD, whose partners are PCC Rokita and PCC EXOL, which both hold 50% of shares, focused on preparatory works for the investment project to build a new, universal plant for the production of alkoxylates and other chemical compounds in Brzeg Dolny, including polyether polyols. The new installation is designed to produce a wide range of, among other things, ethoxylates and polyether polyols, which can be widely used in numerous sectors. Some of the products from this installation may be characterised by lower emissions of volatile organic compounds, a shorter and low-waste production process, and a lower carbon footprint.

When making the investment decision in December 2021, circumstances such as the war in Ukraine, the energy crisis, and the rapidly deteriorating competitiveness of European producers against producers from Asia and North America had not yet taken place. Analyses are being carried out of available information, and every effort is being made to - as the situation evolves - minimise insofar as possible their risk on the investment project.

The project is currently at the stage of designing individual elements of the installation, and the first construction works are in progress at the same time.

Tanks for raw materials and process equipment have already been partly ordered. A basic design is also currently being prepared. The detailed design will not exist until this is completed. At the current stage of work, not all design aspects have been determined yet. This is also important in terms of difficulties in the current estimation of investment costs. Given the unstable macroeconomic environment, we are analysing potential scenarios in various hypothetical cost variants. All of these circumstances are leading us to believe that the final investment costs will be higher than initial estimates.

Despite this, the project is currently being implemented as per schedule. However, it cannot be ruled out that circumstances may arise that may potentially affect the modification of the schedule as well as the scope of the project or production volumes. At present, the Company does not expect currently known conditions to prevent the implementation of the investment.

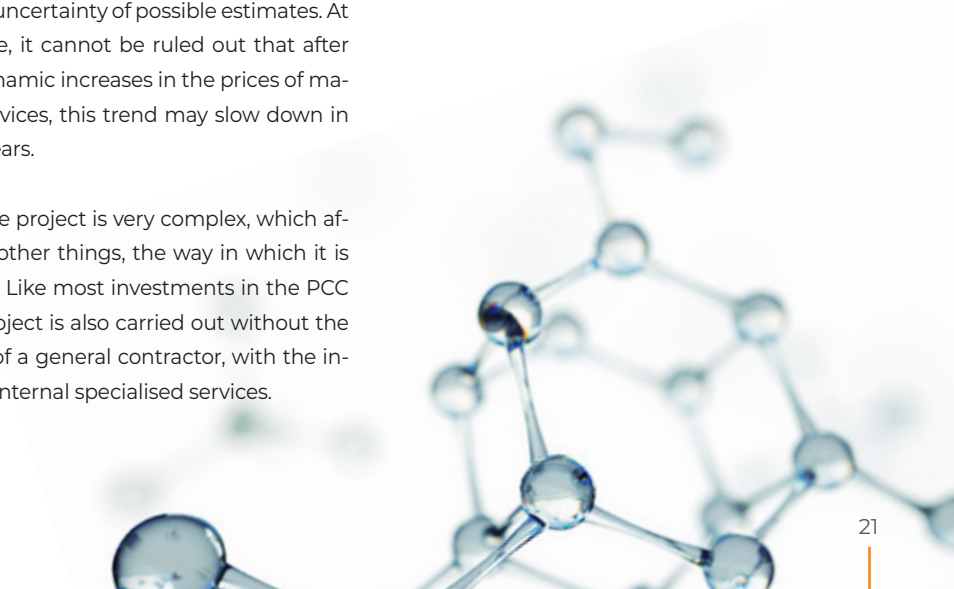
However, the actual level of increase in investment costs remains a huge unknown. Inconsistent information coming from the market and from suppliers regarding the possible prices of materials and services purchased as part of the implementation of the investment project makes it impossible to estimate at this stage how much these costs will increase. According to generally available information, the situation on the market of materials and services (including construction) is causing volatility in prices, which are mostly rising. The increases concern the prices of semi-finished products, construction materials, components, machinery and equipment, and as a result increase the costs of building installations necessary for the implementation of the investment. Some purchases related to the project will be made in a currency other than PLN, which further increases the uncertainty of possible estimates. At the same time, it cannot be ruled out that after a period of dynamic increases in the prices of materials and services, this trend may slow down in the coming years.

In addition, the project is very complex, which affects, among other things, the way in which it is implemented. Like most investments in the PCC Group, this project is also carried out without the participation of a general contractor, with the involvement of internal specialised services.

A more detailed calculation of the estimated value of the investment will not be possible until further stages of the investment, including, among others, on the basis of detailed design documentation and final decisions regarding the scope of the investment.

In 2022, the expenditure incurred on investments in the Other Activities segment amounted to

PLN 88.6 million



INNOVATIONS

The PCC Rokita Group employs approximately 60 people in its research and development departments, including ten with a PhD. The Other Chemicals segment is supported by approximately 20 employees, while the Polyurethanes segment by approximately 40.

To be competitive on the markets of producers of raw materials and additives, the Company is constantly working on the optimisation of technological processes, as well as the development and implementation of new products.

Polyurethanes segment

The research and development department of the Polyurethanes segment is involved in extensive work related to the optimisation of production processes. Thanks to these works, we expect to obtain products with improved application parameters. Research is also being conducted on the use of polyurethane products in the circular economy and the reduction of the carbon footprint of polyols.

In 2022, the Group carried out implementation works in the area of polyester polyols intended for two applications: polyurethane sandwich slabs and one-component assembly foams (OCF). In the sector of polyols for CASE applications, work was carried out on a new technology thanks to which new polyols with the participation of recycled (PET) raw materials were developed, which are used in modern thermal insulation.

Another intensively developed area of application is raw materials for lubricant production. Application tests of new synthetic base oils used in, among others, hydraulic fluid formulations and industrial oils used in gears, compressors, as well as machining and process fluids.

The research and development department of the Polyurethanes segment also carried out work related to the development of new polyurethane systems and prepolymers. Polyurethane systems are mainly used as insulation in construction and other industrial applications. Research works aimed at lowering the thermal conductivity coefficient (λ) and effective flame retardation will help in the launch of new products that will contribute to the development of eco-friendly construction (for example, construction of passive houses). There is also an increase in the number of prepolymers produced, which is the result of the launch of new products used in polyurethane systems of various types of moulded flexible foams and systems for the preparation of sports surfaces.

Other Chemical Activities segment

In recent years, the research and development department of the Other Chemical Activities segment developed many new technologies, including ones implemented on the pilot line, which was started up in 2020. In 2021 and the first half of 2022, the pilot line was successfully used to further optimise technological processes, thanks to which products in the segment have increasingly better quality and application efficiency, and are made in a more and more eco-friendly and economical manner.

In the past year, research work was continued on expanding the Group's offer with new specialty solutions that will complement the portfolio addressed to clients from the plastics, hydraulic fluids and construction industries. The research work was also related to the development of existing products in new application areas.

Sales of flame retardants and flame retardant plasticizers developed in recent years for technologically advanced formulations are being successfully developed, where technical facilities and specialist application competences of the team of technical advisers form the basis for the success of implementation works. The thermal stabilisers for PVC launched for regular sale are currently being tested in flexible polyurethane foams and as antioxidants in industrial lubricants. In addition, work is underway to expand the portfolio of flame retardant plasticizers with low-smoke solutions and for applications where low-temperature plasticization is important.

Following the trend in the development of halogen-free flame retardants initiated in previous years, work continued on the development of new, eco-friendly solutions for polyurethane foams, including as part of the "Fast Track" project co-financed from the "Smart Development" Operational Programme. Compared with the halogen-free solutions proposed to date, the products being developed will be even more effective in flammability tests of finished materials, and will have very low emissions of volatile organic compounds.

In the field of hydraulic fluids, thanks to the establishment of cooperation with synthetic oil formulators, works were carried out on the development of a specialised flame-retardant hydraulic fluid that does not have a negative impact on the environment, intended for modern equipment operating in power plants. The product is to meet a number of requirements set by leading manufacturers of devices operating under extremely high loads. In addition, work is underway on an additive for the aerospace industry and an additive with a corrosion inhibitor function.

Due to their potential, phosphorus-based products continue to occupy a leading position in the area of research activities. In 2022, work began on products intended for the production of optical fibres and batteries, based mainly on inorganic phosphorus compounds.

There are also several projects underway in the group of naphthalene derivatives aimed at developing new superplasticizers for concrete and dispersants dedicated to numerous applications, such as the production of latex and plasterboards and products for the mining industry. Attempts to select appropriate anti-adhesive agents for concrete moulds have also begun. In addition, laboratory work was carried out on the technology of obtaining polycarboxylate ethers (PCE) and appli-

cation tests of the obtained products, which are new-generation admixtures for concrete. A new fluidizer for dry cement mixes based on microsilica with PCE has been developed.

The environment and research and development activities

In the research departments of the Polyurethanes and Other Chemical Activities segments, the Company continued the implementation of a project co-financed by the National Centre for Research and Development under the "Fast Track" programme called "Innovative and environmentally friendly raw materials and additives for the polyurethane industry produced, for example, with raw materials of natural origin".

In the Polyurethanes segment, work is underway to develop new polyols for flexible polyurethane foams. As part of the project, new products will be made to ensure increased comfort of sleep and rest for example, by launching mattresses made of so-called visco-elastic foam, memory foam mattresses, mattresses with a cooling effect or improved ventilation, etc. The improvement of sleep comfort is also associated with the elimination of volatile organic compounds present in the components used in the production of mattresses. On the other hand, in the Other Chemical Activities segment, work was carried out to obtain modern, halogen-free flame retardants for polyurethane systems.

Investments in research and development infrastructure

Environmental aspects are taken into account in all our research and development activities, both at the technology design stage and at the stage of clients using our products. An example of such work is technologies that use renewable or recycled raw materials. In the case of new products, modern insulating systems that allow our customers to save electricity, new anti-wear additives for base oils, which increase the service life of machine parts, and new polyols that allow the reduction of the emission of volatile organic compounds all have a positive impact on the environment. In addition, work on calculating the carbon footprint of selected products continued.

The implementation of the ambitious development goals of the PCC Rokita Group would not be possible without key investments in research and development infrastructure. In 2022, the most important investment project in this regard was the construction of the Centre for Innovation and Process Scaling. The project is aimed at expanding the current research and development centre. The Company plans to create an application laboratory with a scaling hall and warehouse, and to purchase R&D infrastructure to conduct application research. The project is co-financed under the Operational Programme "Smart Development".

INVESTOR RELATIONS
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