



**PETROKEMIJA**  
KUTINA

# NON-FINANCIAL REPORT

**PETROKEMIJA D.D.**  
**PETROKEMIJA GROUP**  
**FOR PERIOD January – December 2017**

**NPK**

**KAN**

**UREA**

**PETROKEMIJA'S**

**ASN**

Kutina, June 2018



## Foreword of Đuro Popijač, MSc President of the Board

For the first time this year, Petrokemija d.d. and the Petrokemija Group is addressing you with this profile of report in order to provide the public with comprehensive and structured information about the non-financial aspects of our business in 2017. If we wanted to introduce our company in one sentence, we could say that Petrokemija d.d. produces mineral fertilizers for agriculture and, besides being the market leader in the Republic of Croatia, where it sells about 30% of the total production, it is present with its products in a number of neighboring countries, EU member states, but also in numerous remote overseas markets.

In challenging macroeconomic conditions that Petrokemija d.d. and Petrokemija Group were faced with in 2017, the business results achieved were not at the expected level but we made significant efforts to maintain business continuity and prepare the Company and the Petrokemija Group for the restructuring and recapitalization process that should be implemented in 2018.

Consolidated loss at the Petrokemija Group level amounted to HRK 242.7 million in 2017, which is a cumulative result of a series of bad debts and missed chances of previous years. Of course, this is something we are not satisfied with, but a feeling of moderate optimism springs from the awareness that we are at the end of a multi-annual process aimed at ensuring a long-term survival of Petrokemija d.d., taking into account all the strategic goals we have communicated and agreed with investors and the community as a whole.

Measures for rationalization and optimization the business, as well as for improvement of the Group's market position to be applied in the next period, will continue to respect the basic values we have taken into account in our business so far.





## Foreword of Đuro Popijač, MSc President of the Bord (cont)

Responsibility towards the environment, our employees and the community where we operate – are the three pillars of socially responsible business that we have been building in our day-to-day business practice of Petrokemija d.d. and Petrokemija Group. A wide range of our activities is focused on improving the technological and environmental efficiency, the conditions and the quality of work, so that in spite of limited funding, we have made significant investments worth HRK 103 million.

As a responsible employer, we respect our employees and consider them the basis of our current business and future development and success. We wish we had achieved a much higher level of recruitment of young and skilled people, and their continuous education and training, but the financial constraints and the unfinished restructuring and recapitalization process were a limiting factor in the realization of this goal. Finally, I want to express my hope that in the future, Petrokemija d.d. and the Petrokemija Group will, based on the changes to be introduced by the Restructuring Program, create the foundation for good business results in the interests of our investors, customers and suppliers, as well as the entire community.





## History

- Petrokemija d.d. represents a significant part of the Croatian industrial tradition, especially in the segment of chemical industry that started in Kutina by producing carbon black in the thirties of the last century, continued with lime production in the forties, in the fifties with bentonite clay- based products and then in the late sixties opened a new, most significant development chapter with the production of mineral fertilizers;
- Petrokemija d.d. was established in 1959 by the decision of the Board of Directors of the Chemical Industry Zagreb, as Nitrogen Fertilizer Factory under Construction, Kutina.
- In 1964, the founding rights and obligations were transferred to the Kutina Municipal Assembly, and in 1965 to INA - Oil Industry Zagreb (INA - Nitrogen Fertilizer Factory under Construction). In July of that year, the beginning of construction was marked.
- The new factory started work in early 1968 and the first quantities of Urea, the first mineral fertilizer produced in Kutina, were obtained in the early morning hours of March 18, 1968;
- At the beginning of 1968 there were two INA's plants operating in Kutina: the Chemical Products Factory (better known as Metan) and the Nitrogen Fertilizer Factory. **They were merged into one company, named INA - Petrokemija Factory, on June 1, 1968. This date was later declared as the INA - Petrokemija Day, and the first ceremony was held in 1976.**
- With total annual production of 657,850 tons in 1972, INA – Petrokemija became the largest manufacturer of mineral fertilizers in the former Yugoslavia.
- The contract for the construction of the Phase 2 of Mineral Fertilizer Factory in Kutina was signed in the summer of 1977, and the foundation stone was laid on June 1, 1978. The next year, Kutina became a major construction site, and the first new plant, AN / CAN was started up on October 28, 1982.
- By November 9, 1983, the entire Phase 2 complex was in operation, and the opening ceremony was held on November 27, 1984.
- The total capacity of the new (Phase 2) fertilizer production facilities at the time was 1,256,000 tons, which together with the existing Phase 1 plants made a total of 1,884,000 tons of annual capacity. At that time, it accounted for about 42 percent of total Yugoslav capacity. In early 1985, the Factory had 4,416 employees, the most in its history.
- Over the past three decades, some plants have been closed down, some have undergone modifications and modernization, so that in the reporting period, i.e. in 2017, the installed capacity of mineral fertilizers was 1,280,000 tons.





## Company Profile

GRI: 102—1: Organization name

- Petrokemija d.d. Fertilizer Company is recognizable in the wider region as a significant manufacturer of mineral fertilizers, which in the past decades has had an impact on the development of agricultural production in the Republic of Croatia but has also left a visible track on the development of neighboring countries and regions. In its production spectrum, the Company has services and other products that are not of major importance to total business but have, during their historical development participated in certain stages of business cycles and have influenced the level of employment, efficiency, social sensitivity through recruiting employees with reduced working ability or simply contributing to the Company's business results through revenues and satisfying the needs of our customers in the market.
- Mineral Fertilizer Production manufactures fertilizers using natural mineral raw materials, natural gas, atmospheric nitrogen and oxygen. The annual capacity is approximately 1.3 million tons, depending on the structure of the product range and the implementation of a complete biennial facilities overhaul.
- Meeting quality standards is proven by the certificates, but also by the satisfaction of customers and product users. For many years, the Company has been building management systems in compliance with the requirements of international standards such as ISO 9001 for quality management, ISO 14001 for environmental management, ISO 50001 for energy management, ISO 17025 for testing and calibration laboratories and Product Stewardship for product management.



## Products and services

- In its product range, Petrokemija d.d. offers several types of products and services.
- Along with the granular and prilled mineral fertilizers that are the cornerstone of the production offer and account for the most of the Company's business results, there are also ancillary products and services – liquid mineral fertilizers Fertinas, small-packages mineral fertilizers Florins, products for foundry and construction, animal feed supplements and pet litter.
- In testing laboratories of the Quality and Environment Management department, we perform services for external customers of testing mineral fertilizers and technical chemicals, natural gas, waste, surface-, underground- and wastewater and waste eluates, waste gas, outdoor air, soil, must and wine as well as of sampling mineral fertilizers and waste materials in accordance with the accreditation certificate No. 1199 of 29 March 2017.
- Within the Maintenance Department, we offer mechanical, construction, electrical, measuring and regulation services as well as engineering services.

### MINERAL FERTILIZERS

- Petrokemija's mineral fertilizers are produced using natural mineral raw materials, natural gas, atmospheric nitrogen and oxygen. By using the appropriate technological processes, these raw materials are turned into nitrogen (N) fertilizers, nitrogen - sulfur (NS) fertilizers, nitrogen - phosphorus (NP) fertilizers and nitrogen - phosphorus - potassium (NPK) fertilizers.
- The common feature of all fertilizers is the uniformity of granules, high share of nutrient and high solubility. Also, each granule contains exactly the nutrients and exactly in the same ratio as those on the product packaging.





# Politics

## QUALITY, ENVIRONMENT, ENERGY, AND SUSTAINABLE DEVELOPMENT POLICY

PETROKEMIJA, d.d. manufacture mineral fertilizers, ammonia, inorganic acids and bentonite clay-based products, also offering services in the field of development, designing, supervision, maintenance, calibration, quality control, and consulting.

Our business operations are based on high ethical and business standards of the Company, social responsibility and orientation toward sustainable development, as well as on certified and accredited management systems compliant with the requirements of the ISO 9001:2008, ISO 14001:2004, ISO 5001:2011, and HRN EN 17025:2007 standards.

Our objective is:

**CUSTOMER SATISFACTION, ACHIEVED BY HIGH-QUALITY PRODUCTS AND SERVICES WITH MINIMUM ADVERSE EFFECTS ON THE ENVIRONMENT AND TAKING INTO ACCOUNT THE ENERGY EFFICIENCY OF OUR PROCESSES**

Through product management, we continually improve the quality of all our processes, products, and services, taking care of healthy and safe environment and prevent the environmental pollution throughout the product life cycle. As part of a continuous improvement, we improve the energy efficiency of our manufacturing processes. When purchasing new equipment, reconstructing or creating new processes, we take into account energy efficiency. Improvements are achieved by setting, implementing and achieving goals, and by monitoring, measuring and evaluating the system.

We use all available resources rationally and responsibly, reduce the impact on climate change and manage the waste in a sustainable way by improving technology and business processes to ensure competitiveness, long-term and stable growth of the Company and to be recognized and accepted as a responsible member of the community.

We at Petrokemija conduct our business in compliance with the regulations and standards of Republic of Croatia and of our export markets. We build the trust and good partner relationships by means of transparent and ethical conduct of business, as well as by good communication with the employees, shareholders, customers and suppliers, business partners and the community.

We require high standards of quality, health, environmental protection and safety from all the participants in the product life-cycle. In this way, our product, as well as purchased raw materials and additives, are handled, stored, produced, distributed and used in a safe manner. We continually analyze and improve our processes and products by taking into account the risks that arise during the product life cycle.

Through constant learning, professional training, and applying and verifying the acquired knowledge and skills, we are able to create new values. We promote energy efficiency among our employees. We educate the end-users about the importance of proper fertilization in accordance with good agricultural practices.

We make all the stakeholders – our employees, business partners, and the public - acquainted with our business commitment, so they can give their contribution to preservation of natural resources for generations to come.

And finally, in our work and business operations, we contribute to the development of the society and a better life for people, help the community and preserve our environment, thus giving our contribution to the sustainable development of Republic of Croatia.

**Đuro Popijač, MSc**  
President of the Board



### POLITIKA KVALITETE, OKOLIŠA, ENERGIJE I ODRŽIVOG RAZVOJA

Petrokemija d.d. proizvodi mineralna gnojiva, amonijak, anorganske kiseline, proizvode na bazi bentonitne glinice za primenu u poljoprivrednoj, prehrambenoj, tekstilnoj, odličnoj, građevinskoj, papirnoj, kozmetičkoj i ostalim industrijama.

Petrokemija d.d. svoje poslovanje usmerava na visoku etičku i poslovnu integritetnost, dostizanje odgovornosti i usklađenosti sa visokim standardima kvaliteta i zaštite okoliša, energetske efikasnosti i održivog razvoja, kao i na zadovoljenje zahteva svih zainteresovanih strana.

Kao što je predviđeno Zakonom o zaštiti okoliša, Petrokemija d.d. nastoji da svojim proizvodima i uslugama doprinese očuvanju okoliša i zdravlju ljudi, kao i da svojim proizvodima i uslugama doprinese očuvanju prirodnih resursa i održivom razvoju.

Radujemo se odgovorno korišćenju svih raspoloživih resursa, unapređenju uslova na klimatske promene i u skladu sa zahtevima za održivo poslovanje usklađujući naše proizvode i usluge sa zahtevima naših klijenata, dobavljača, zaposlenika, akcionara i ostalih zainteresovanih strana.

Radujemo se i usklađenju sa svim važećim zakonima i standardima kvaliteta, zdravstvenim, bezbednosnim, okolišnim, energijskim i drugim standardima, kao i usklađenju sa zahtevima naših klijenata, dobavljača, zaposlenika, akcionara i ostalih zainteresovanih strana.

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Prostorni Otvor  
Dr. Đuro Popijač



## Production program and plants of Petrokemija d.d.

- Fertilizer production takes place in a series of interconnected plants for which basic characteristics are given here.
- **AMMONIA PRODUCTION PLANT (AMMONIA PLANT 2)** was designed and manufactured by the American company Pullman Kellogg Ltd. The process is based on the original Kellogg method and is based on a high-pressure reforming process for the production of ammonia which uses natural gas for the process. The plant was commissioned in 1983 when the first quantities of ammonia were produced. Next to natural gas, both as raw material and energy, air is used for the production of ammonia. Water is used as auxiliary media, treated in accordance with the process requirement.
- **UREA PRODUCTION PLANT (Urea-2)** started production in 1983. The technological process of urea production is based on the STAMICARBON CO<sub>2</sub> stripping process using liquid ammonia and gaseous carbon dioxide. In this facility, a new product was developed under the commercial name Petroblue, known as the protected brand Ad Blue®.
- **CAN PRODUCTION PLANTS** – There are two CAN production plants in Petrokemija.
  - **CAN-1 PLANT** – started production in 1968 of prilled 27% N CAN with daily capacity of 578 t. It was built under the license of KALTENBACH-THURING. The plant was modified in 1998 for the production of granular CAN under the license of the same company with a capacity of 578 t / d of CAN 27% N or 450 t / d of AN 33.5% N.
  - **AN / CAN-2 PLANT** – was also made under the license of KALTENBACH-THURIN. It can produce 500 t / d of pure NH<sub>4</sub>NO<sub>3</sub> as the following alternative products: CAN 27% N, AN 33.5% N, AN 34.8% N - technical, AN 34.8% N - porous with 6% or 12% oil absorption and 95% AN melt. In a separate part of the plant, the following liquid products can be produced: 40% N Barrett solution, 30% N UAN solution and 25% NH<sub>3</sub> ammonia water.
- **NPK FERTILIZER PRODUCTION PLANTS:**
  - **NPK-1 PLANT** – started operation in 1968. It was designed for production of 1,350 t / d of NPK 13-10-12 or 445,500 tons per year, after the process of the French company P.E.C. (Potasse et Engrais Chimique). The plant is capable of producing a large number of different NPK fertilizer grades the nutrient components ratio of 1:2:3, through 1:1:1 up to 2:1:1, with a daily capacity of 1.600 t / d of 15-15-15 grade that is mostly produced these days.
  - **MAP / NPK-2 PLANT** – Licensor: FISONS Ltd, designer: DAVY INTERNATIONAL Ltd. The plant was commissioned in 1983. Plant Capacity: NPK-Complex Fertilizer 1.320 t / d (using MAP slurry), 1,200 t / d (using tubular T reactor), NPK, PK and NP - mixed fertilizers 600 t / d, MAP monoammonium phosphate 1,050 t / d. NPK fertilizers are not produced at this plant any longer. Instead, a production of two new products has been developed, PetrokemijAS and ASN, which had good results in the reporting period.



## Production program and plants of Petrokemija d.d. (cont)

- NITRIC ACID PRODUCTION PLANT** – There are two nitric acid plants in Petrokemija. One is within the Phase 1 complex, with a capacity of 2 times 405 t / d, which has been in operation since 1968. The other is a part of Phase 2, and has a capacity of 450 t / d of acid, and has been in operation since 1982. Both plants were built under the license of the French company GRANDE PAROISSE from Paris. Although there are small technological differences between them, the plants are very similar, so the same technological description can be used for both plants.
- SULFURIC ACID PRODUCTION PLANT** – was licensed by Chemiebau Bayer. The plant has been in operation since 1983. The nameplate capacity is 1,500 t / d of concentrated sulfuric acid (98.4%) of high purity. According to the design, most of the acid produced was used for the production of phosphoric acid, i.e. for the production of the phosphoric component of mineral fertilizers. In the reporting period in 2017, most of the acid was used for PertrokemijAS and ASN products, for improving the physical properties of NPK and CAN mineral fertilizers, or as a finished product sold on the market, and a smaller part in water treatment. The production dynamics is aligned with the balance of internal consumption and the possibilities of storage and supply of raw materials.
- PHOSPHORIC ACID PRODUCTION PLANT** – Petrokemija d.d. has chosen the dihydrate process of phosphoric acid production (licensor: FISONs, designer: DAVY INTERNATIONAL Ltd.). Plant capacity: 500 t / d of P<sub>2</sub>O<sub>5</sub> weak acid, 550 t / d P<sub>2</sub>O<sub>5</sub> strong acid and 17 t / d of H<sub>2</sub>SiF<sub>6</sub>. Since 2009 and during the reporting period, the plant has been under suspension.





## Production program and plants of Petrokemija d.d. (cont)

- **ELECTRICAL AND THERMAL ENERGY PRODUCTION** – At the beginning of the 60s, construction of a mineral fertilizer factory was started, known today as the Phase 1, which was commissioned shortly afterwards. At that time, the energy system was designed for the production of heat energy needed for the plants, while the electricity was purchased from a power company. The system consisted of four generators producing 30 t / h of 12-bar steam. In the Phase 2 complex, a different energy system was built, which, in addition to thermal energy, produced enough electricity for all plants within the mineral fertilizer facility. Thus, the basis of the energy system consisted of three generators of steam with a total capacity of 360 t / h of water vapor and a turbo generator set of 35 MW capacity. Such an energy system still exists today, but with a series of minor modifications and innovations that were made based on exploitation experience, with the aim of either reducing production costs or facilitating production. In addition to the steam generators, which, together with all the common fittings and equipment belong to the Energy Plant, the energy system consists of facilities for the preparation, processing and distribution of water (cooling, demineralized system, drinking water system, condensate, accumulation system), system of transfer and distribution of electricity, gas transport and preparation system, air compressor room, auxiliary power plants and installations.
- **WATER PROCESSING AND TREATMENT** – Raw water is supplied from the Ilova reservoir lake to the production of drinking water (capacity 120 m<sup>3</sup> / h and decarbonized water (capacity 960 m<sup>3</sup> / h). Decarbonized water is used for the production of demineralized water with a capacity of 65 m<sup>3</sup> / h, for refilling of the cooling system and for process plants. Demineralized water is used for feeding steam boilers and as process water for plants. The cooling system is an open recirculation system with a capacity of 4,000 m<sup>3</sup> / h and is used for cooling production plants. From the Pakra reservoir lake, raw water is supplied for the production of decarbonized water with a capacity of 1,620 m<sup>3</sup> / h. Decarbonized water is used for process plants, ion decarbonization, for filling the cooling pond and for the production of demineralized water with a capacity of 280 m<sup>3</sup> / h. Demineralized water is used to supply boilers and process plants. The cooling system is an open recirculation system with a capacity of 33,000 m<sup>3</sup> / h and is used for cooling production plants. The wastewater of the mineral fertilizer facility is treated at the wastewater treatment plant with a capacity of 285 m<sup>3</sup> / h . The treated wastewater is used to refill the cooling pond, and the 50% ammonium nitrate produced is returned to the NPK fertilizer production process.



## Production program and plants of Petrokemija d.d. (cont)

- **CARBON BLACK PRODUCTION** – has been suspended since 2009 due to market reasons. It is the production program with the longest tradition in the Company. However, despite having been proven by the sales of carbon black to the world's most renowned rubber industry companies and the sale of its own technology, it could not fit into today's standards of energy and production efficiency. Carbon black is mainly used in the rubber industry (for the production of pneumatic tires, tubes and transmission belts) and black pigments are used for printing ink, black coatings, plastics, textile dyes and the like. In the reporting period, this facility was stalled and there are no market conditions for its re-activation.
- **BENTONITE CLAY PRODUCTION** – is a separate production program that has a wide range of bentonite clay-based products - from bentonite for oil drilling, foundry industry, protein and mineral supplements to animal feed, to Felina pet litter labeled "Environment Friendly".
- **OTHER PRODUCTS** – Petrokemija also sells a part of the produced base chemicals, intermediaries in the process of mineral fertilizer production - ammonia, nitric and sulfuric acids, ammonia solutions, as well as Petroblue product, diesel fuel additives. A significant part of the program are Florins - small packaging of fertilizers for households. In the segment of the so called small-tonnage chemistry, the Company also offers a range of products called Fertina, liquid mineral fertilizers for various uses and of different nutritional composition, from fertilization of crops and lawns to different types of fruit and grape vines.
- **MAINTENANCE** – The main activity is maintenance of production and transport facilities, as well as other Petrokemija's buildings and structures. Within the Maintenance Department, we also offer mechanical, construction, electrical, measuring, technical regulation and engineering services to external customers.
- **QUALITY AND ENVIRONMENTAL MANAGEMENT** – combines professional jobs of: quality control of incoming, process and outgoing media and products; development, improvement, maintenance and implementation of the quality and environmental management systems, laboratory management system, product management system, as well as the security, environmental protection and chemicals management systems.
- **PALLET PRODUCTION** – In this organizational unit, wooden pallets of different dimensions are produced, intended for internal use in the packaging of mineral fertilizers.
- **RESTAURANT** – The Restaurant prepares warm meals for Petrokemija's employees and external contractors who are engaged in jobs on the site. The Petrokemija Restaurant also offers catering for external customers.



## Core values

- The goal of Petrokemija d.d. is the complete satisfaction of customers achieved by the high quality of products and services with the least possible adverse environmental impact.
- **MISSION**
  - Our mission is to satisfy the needs and expectations of agricultural producers that we achieve by high quality mineral fertilizers, by partnering relationship and by preserving our customers' constant commitment.
  - We are the leader in the mineral fertilizer market in Croatia and a significant participant in the regional market.
  - We use all available resources rationally and responsibly, reduce the impact on climate change, improve technology and business processes to ensure competitiveness and a stable and long-term development of the Company.
  - We care about a healthy and safe environment and prevent pollution during the life cycle of the product.
  - We build trust and good partnership relationships through transparent and ethical business and good communication with customers, shareholders, employees, suppliers and the community.
  - Employees are the foundation of our success and the prerequisite of our future. By creating a positive working environment and continuous learning, we create new values.
  - With our business operations, we contribute to the development of society, help the community and preserve the environment in which we operate, thus contributing to the sustainable development of the Republic of Croatia.
- **VISION**
  - To be a regional leader in the mineral fertilizer market, which will provide customers with the best value for the money invested, by doing business based on the principles of sustainable development.
- **FUNDAMENTAL VALUES**
  - Full customer satisfaction achieved by the high quality of products and services.
  - Growth of shareholders' assets value.
  - Sales growth in the regional market up to full capacity utilization.
  - Modernization with the aim of reducing costs and humanizing labor.
  - Protection of the environment in accordance with the Croatian and EU standards.
  - Encouraging employees to creativity in achieving goals.

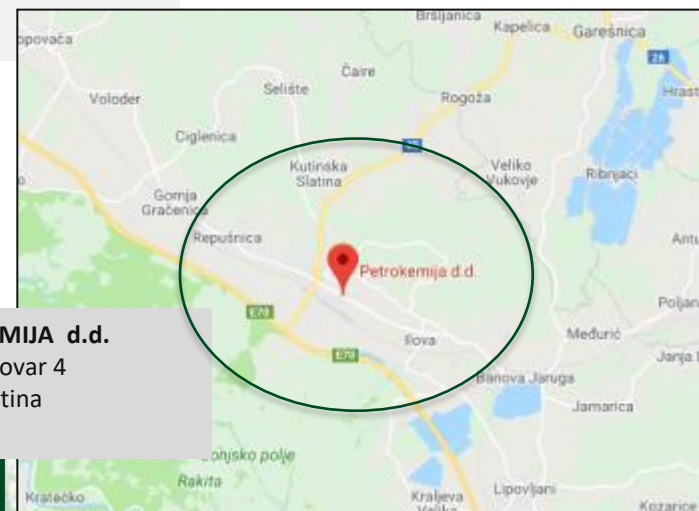




102 -3: Location and headquarters  
102 – 4: Business location

## Location of Petrokemija

- Petrokemija d.d. is based in Kutina
- Petrokemija group consists of Petrokemija d.d. Kutina and its daughter companies:
- **Petrokemija d.o.o. Novi Sad**
- **Luka Šibenik d.o.o. Šibenik**
- **Petrokemija Agro Trade d.o.o.**
  
- Excellent transport connections
  - Railway transport
  - Motorway
  - Access to ports



**PETROKEMIJA d.d.**  
Aleja Vukovar 4  
44320 Kutina



**PETROKEMIJA AGRO TRADE**  
poduzeće za trgovinu i usluge  
Aleja Vukovar 4  
44320 Kutina

**PETROKEMIJA NOVI SAD**  
Preduzeće za trgovinu i usluge,  
export-import  
Ilije Ognjanovića 28  
21000 Novi Sad, Srbija  
[www.petrokemija.rs](http://www.petrokemija.rs)

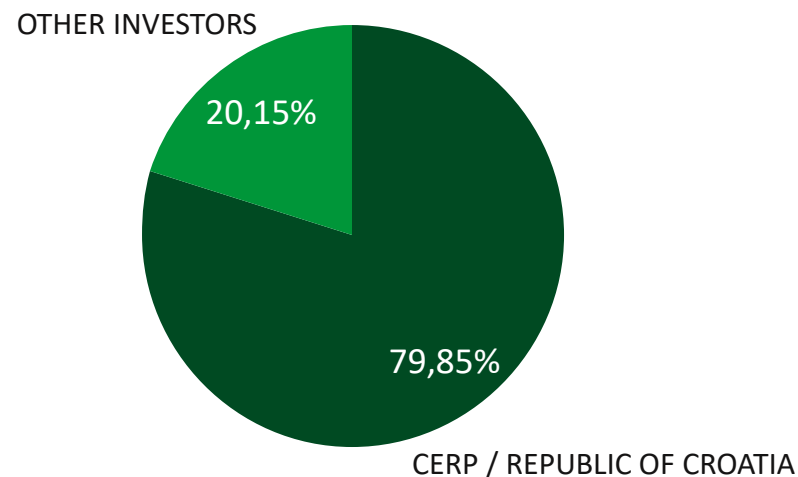
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Obala hrvatske mornarice 4  
22000 Šibenik  
[www.lukasibenik.hr](http://www.lukasibenik.hr)



## Ownership structure and legal form

- On 1 March 1991, a joint stock company named INA - Petrokemija, a company for the production and marketing of carbon black, bentonite clays and mineral fertilizers, a joint stock company, was registered in the court register.
- As of 18 December 1996, the company operated as Petrokemija d.o.o., and on 24 June 1998 it changed its name to Petrokemija d.d. due to transfer to a joint stock company.
- Legal form of the Issuer: Joint Stock Company
- Legislation under which the Issuer operates: Legislation of the Republic of Croatia

No	Account owner (holder) / co-authorized (custodian)	Percent of share
1.	CERP/REPUBLIC OF CROATIA	79.85
2.	SPLITSKA BANKA D.D./AZ OMF CATEGORY B – Custodian account	3.09
3.	ADDIKO BANK D.D./PBZ CO OMF - CATEGORY B - Custodian account	2.85
4.	SPLITSKA BANKA D.D./ERSTE PLAVI OMF CATEGORY B - Custodian account	2.59
5.	HPB D.D./KAPITALNI FOND D.D. - Custodian account	0.98
6.	PRIVREDNA BANKA ZAGREB D.D. - Custodian account	0.94
7.	HPB D.D./FOND ZA FINANCIRANJE RAZGRADNJE NEK - Custodian account	0.76
8.	PRIVREDNA BANKA ZAGREB D.D. - Custodian account	0.26
9.	OTP BANKA D.D. - Custodian account	0.24
10.	PESEC ANTHONY JOSIP	0.23



Data displayed are for the previous trading day. Data downloaded from [www.skdd.hr](http://www.skdd.hr), 29.12.2017.

## Product sales

- In the 50 years of its existence in Kutina, Petrokemija has produced and sold more than 50 million tons of mineral fertilizers worldwide.
- Petrokemija sells its products on the domestic, regional market (neighboring countries) and on the so-called spot market and has been faced with the open market competition over a longer period of time.
- The position of Petrokemija d.d. on the Croatian market is stable but under increasing pressure from domicile competition from the EU, as well as from producers from the eastern countries. In the Croatian market the Company's market share is 70% to 80% of total market demand. Until 2010, Petrokemija was the only mineral fertilizer manufacturer in Croatia but in 2011, a new fertilizer producer, Adriatica Dunav d.o.o. from Vukovar appeared on the Croatian market.
- The narrower region for Petrokemija, next to the Croatian market, also includes the markets of Slovenia and Bosnia and Herzegovina, where Petrokemija's fertilizers have a significant share in the total fertilizer consumption (Slovenia about 60%, Bosnia and Herzegovina about 35%).
- The other important markets in the region are Italy, Hungary, Serbia, Kosovo, Montenegro and Macedonia, where some markets are traditional like Italy, while others are significant in their high growth potential of agricultural production and fertilizer consumption. The markets of the region that follow are Austria, Bulgaria, Romania, Germany, Turkey, Greece and Albania.
- Due to the fuller utilization of the capacity, significant fertilizer volumes are sold to remote markets, taking into account the level of transport costs and hence the lower profitability of sales on these markets.





## Policies and certificates

- Petrokemija d.d. bases its business on high ethical and business standards, social responsibility and focuses on sustainable development and certified and accredited management systems according to the requirements of the following standards: ISO 9001: 2008, ISO 14001: 2004, ISO 50001: 2011, HRN EN ISO / IEC 17025 / 2007, and VDA Adblue ISO 22241 certification. The OHSAS 18001 safety management system was introduced but not certified, but is planned under ISO 45001 certification. Preparations are underway for recertification according to ISO 9001: 2015, ISO 14001: 2015.

### Documents:

Document name
Quality, environmental and sustainable development policy
Safety policy
Industrial accidents prevention policy
Product management system
Certificate ISO 9001
Certificate ISO 14001
Certificate ISO 50001
AEOC - Authorized economic operator status

[www.petrokemija.hr](http://www.petrokemija.hr)







## Social responsibility

- Petrokemija d.d. participates daily in raising the standard and general culture of living in the City of Kutina.
- Work-related issues or those related to employee's labor relations, i.e. all the rights and obligations of our employees have been regulated by the Collective Agreement.
- We are economical in running the processes and rational in use of all resources. Environmental care is built into our business policy. An integral part of social responsibility is respect for human rights, which we have integrated into our principles and practices.

### EMPLOYEES - our greatest value

- The expertise, skills, and competence of employees are the highest value of Petrokemija. Success is based on their hard work, expertise and motivation.
- In our work, we respect and protect human rights and are guided by high ethical principles and standards of business conduct - Code of Business Conduct.
- We assure equal opportunities and working conditions for all employees.
- We do not tolerate discrimination.
- We care about the satisfaction of employees and create a working environment and conditions where every employee has the opportunity for personal and professional development. Through continuous learning, we are able to create new values.
- We respect the employees' right to freedom of association and collective bargaining.



Glasnik



## Information on employees

- There were no major changes in the number of employees during the reporting period.
- On December 31, 2017, Petrokemija d.d. had 1572 employees. Out of the total number of employees, 175 are highly educated.
- Average age of employees in 2017 was 48 years.
- In the structure of employees of Petrokemija, dominant is the male gender is (84.16%).
- By type of employment, people are predominantly employed on a permanent basis (98.15%).
- All employees work full time, 40 hours per week.

### Number of employees by type of contract and gender:

On 31.12.2017:

Gender	Permanent employment	Temporary employment	Total
M	1298	25	1323
F	245	4	249
<b>Total</b>	<b>1543</b>	<b>29</b>	<b>1572</b>

On 31.12.2016:

Gender	Permanent employment	Temporary employment	Total
M	1330	14	1344
F	248	3	251
<b>Total</b>	<b>1578</b>	<b>17</b>	<b>1595</b>

## Sustainable agriculture – our future

- We educate end-consumers and constantly carry out demonstration and fertilizing trials with the aim of making fertilizer consumers aware of the importance of proper fertilization based on chemical soil analysis and in accordance with good agricultural practices.
- We hold expert lectures on the fertilization of various crops in Croatia, Slovenia, Bosnia and Herzegovina and Serbia.
- We make recommendations for fertilization based on chemical soil analysis, and on free phone 0800 647 647 we answer questions related to the fertilization of various agricultural crops.
- Tips for applying our fertilizers have also been published on the Company website, [www.petrokemija.hr](http://www.petrokemija.hr) and in our brochures in Croatian and Slovene, and we can be contacted on the topic by e-mail at the following address: [primjena@petrokemija.hr](mailto:primjena@petrokemija.hr).
- We contribute to the preservation of the position of domestic agriculture, railways and ports.
- We cover about 75% of mineral fertilizer demand on the Croatian market.



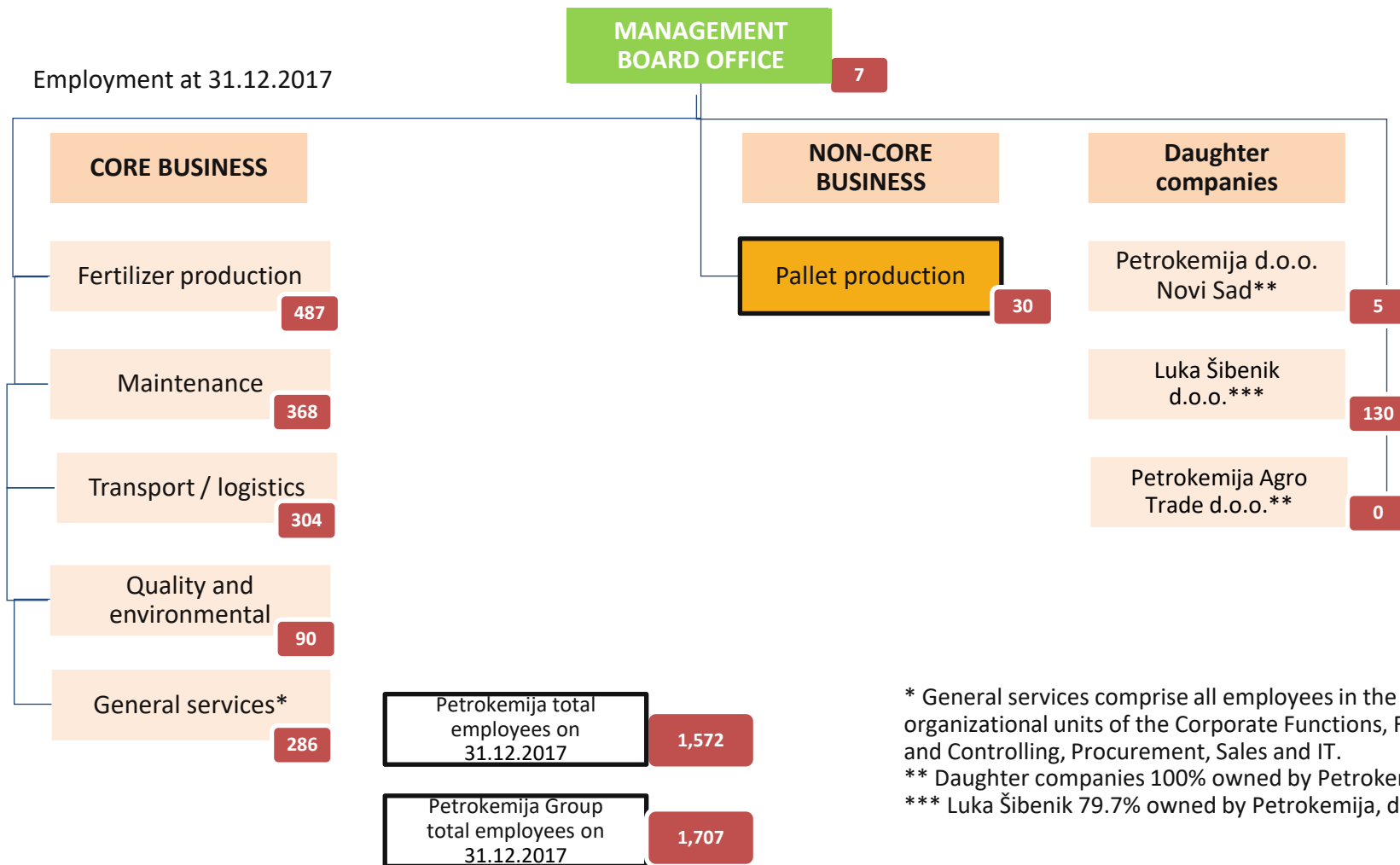


## Anticorruption

- **CODE OF BUSINESS CONDUCT OF PETROKEMIJA D.D.** Is available on the website of Petrokemija d.d. [CODE OF BUSINESS CONDUCT](https://petrokemija.hr/portals/0/akp/code%20of%20business%20conduct.pdf)  
<https://petrokemija.hr/portals/0/akp/code%20of%20business%20conduct.pdf>
- **PERSON IN CHARGE OF IRREGULARITIES**- pursuant to Art. 13 of the Statute of Petrokemija d.d. and item 2.2. and 2.7. of the Action Plan for the Implementation of the Anticorruption Program in Petrokemija d.d., the Management Board of the Company adopted a Decision on the mode of operation of the ethics commissioner and the person in charge of irregularities
- Contact: E-mail: [nepravilnosti@petrokemija.hr](mailto:nepravilnosti@petrokemija.hr) , Tel: 044 / 647-157
- **COMMISSIONER FOR ETHICS OF PETROKEMIJA D.D.** - pursuant to Art. 13. Statute Petrokemija, d.d. and item 2.2. and 2.7 of the Action Plan for the Implementation of the Anticorruption Program in Petrokemija d.d., the Management Board of the Company adopted a Decision on the mode of operation of the ethics commissioner and the person in charge of irregularities.
- Contact: E-mail: [etika@petrokemija.hr](mailto:etika@petrokemija.hr) , Tel: 044 / 647-915
  
- **INFORMATION OFFICER OF PETROKEMIJA D.D.** - Information officer: **Tomislav Pelin, BSc pol.sci.**
- Contact: E-mail: [sluzbenikzainformiranje@petrokemija.hr](mailto:sluzbenikzainformiranje@petrokemija.hr) Tel: 044 / 647-219  
Address: Petrokemija d.d. n/r Službenik za informiranje, Aleja Vukovar 4 , 44320 Kutina
- The right of access to information and the reuse of the information owned or controlled by Petrokemija d.d. was regulated by the Law on Access to Information (Official Gazette No. 25/13). The right to information is obtained by submitting a request to Petrokemija d.d. If the request is submitted in writing, it is necessary to complete the Request for Access to Information that can be sent to:
- a) the address: Petrokemija d.d., Aleja Vukovar 4, 44320 Kutina  
b) fax number: 044/ 680-882  
c) e-mail address: [sluzbenikzainformiranje@petrokemija.hr](mailto:sluzbenikzainformiranje@petrokemija.hr)  
d) requests in person are received on Mondays from 8 do 9 o'clock by the Information Officer  
at the address: Aleja Vukovar 4, Kutina.



# Organization Chart of Petrokemija, d.d. and Petrokemija Group



\* General services comprise all employees in the organizational units of the Corporate Functions, Finance and Controlling, Procurement, Sales and IT.  
 \*\* Daughter companies 100% owned by Petrokemija, d.d.  
 \*\*\* Luka Šibenik 79.7% owned by Petrokemija, d.d.



## Supply chain

### Procurement market risk:

- Raw- and other materials used in the Petrokemija's production processes (MAP, DAP, KCL, raw phosphate, amine oil, steels, plates, special materials) have a relatively long procurement process and are purchased in relatively large quantities, e.g. one ship unit. In addition to being subject to changes in world market prices, delivery times have a significant impact on the production and maintenance process of production facilities. Raw material prices fluctuate during the year by 10 to 15%, depending on the season. Petrokemija is trying to protect itself against these risks by monitoring the trends, by analyses and projections of raw material price movements on the market as well as by negotiating larger quantities in a favorable period, according to the needs and production plan.

### Supply chain:

- Petrokemija's suppliers of goods and services are by and large direct producers of raw- and production materials, but also international traders who often give more favorable payment terms than the producers, i.e. assume part of the risk.
- Due to the variety of needs for goods and services, Petrokemija has several hundred suppliers. Some of them are regular suppliers and some less regular, whose goods and services are ordered occasionally (overhauls of facilities, etc.).
- In the supply chain, from the manufacturer to us as the end user, a maximum of 2 to 3 chain suppliers (manufacturer - carrier - end user, or manufacturer - trader - carrier - end user) are linked.
- The largest number of suppliers is from the territory of the Republic of Croatia, either Croatian companies or representatives of foreign companies with headquarters in Croatia, with a share in total turnover of about 30%. Suppliers supplying goods and services from abroad are from the EU, US, UK, Russia, Belarus, Africa, India, B & H, and Serbia, with a share of about 70% of the total procurement value.
- The total annual procurement turnover with all suppliers either by contract or purchase order amounts to (depending on whether there is planned overhaul of production facilities in the current year) HRK 400 - 600 million.
- The supply chain itself is not very intensive in terms of labor as the goods and materials we supply come packaged on pallets and are unloaded by mechanization, and the bulk goods are unloaded and transported by Petrokemija's transport systems with optimum labor engagement.

▪ Petrokemija d.d., or its individual employees, are members of numerous domestic or international associations, directly or indirectly related to the activities of the Company and the Petrokemija Group:

- International Fertilizer Association (IFA)
- Fertilizers Europe
- Croatian Chamber of Economy
- Croatian Employers' Association
- Croatian Institute of Standards
- Croatian Association for Air Protection
- Croatian Metrology Society
- Croatian Soil Science Society
- Croatian Society for Quality
- Croatian Public Relations Association
- Croatian Association of Corporate Treasurers
- Electrotechnical Society Zagreb
- Croatian Maintenance Society
- Croatian Oracle User Group
- ICV-Controlling
- Croatian Institute of Internal Auditors
- Association of Croatian Laboratories - Crolab
- Croatian Chamber of Mechanical Engineers
- Croatian Chamber of Electrical Engineers
- Croatian Chamber of Civil Engineers



**HUP**  
Hrvatska udruga poslodavaca





## Key risks, opportunities and impacts

- The perception of business position of Petrokemija d.d. at the turn of 2017/2018 is marked by numerous parameters, the effects of which are very difficult to evaluate. Agreements reached on new natural gas procurement terms and reprogramming of debt for natural gas have reduced part of the risk transferred from the previous period. However, according to the current market situation, it is estimated that in 2018 the impact of variable mineral fertilizer prices on the world market and the relatively high level of natural gas prices in Europe and Croatia will continue to be very pronounced. Furthermore, the level of financial expenditures and operational management will be significantly influenced by the Company's insufficient liquidity, high financing costs and the EUR exchange rate movement (most bank loans have a currency clause). The financial result in 2018 will probably also depend on the dynamics and scope of restructuring measures of the Company and the Petrokemija Group.
- Petrokemija d.d. is highly dependent on the price trends of mineral fertilizers and raw materials for their production on the world market, the exchange rate of the Kuna against EUR and USD and their interdependence. Natural gas as the most important raw material is still being purchased on the domestic market. In 2017, it was bought from two suppliers - INA d.d., Zagreb and Prvo plinarsko društvo d.o.o., Vukovar, and at the time of this report, in accordance with the contract, from the third supplier, HEP d.d., Zagreb. The price of natural gas in 2017 and the first three quarters of 2018 is linked to the EUR exchange rate and the price of natural gas on the European spot market. Reducing the price of natural gas transport on the basis of the 2017 tariff would have a positive impact on the financial result in 2018, but inadequate, given the level of the same type of costs with EU competitors. The sales prices of mineral fertilizers on the world market are still at a low level, short-term and under the influence of cyclical and seasonal changes are occasionally changed. The price of the nitrogen fertilizer Urea has been at a low level for a long time, it strongly fluctuates during the year and in the situation of a more pronounced growth of natural gas prices on the European spot market, the profitability of production can be challenged again. Lowering the VAT level in 2017 has had a favorable impact on the sales of mineral fertilizers on the domestic market, but the key effect will still be the level of government incentives in agriculture and the purchase price of major crops.



## Key risks, opportunities and impacts (cont)

- The prices of most basic raw materials are higher than in the previous period (except for raw phosphate), and fluctuations in raw material prices on the world market, which have so far been present, will continue to have an impact on the material costs. Furthermore, in its production process, Petrokemija d.d. necessarily emits a certain amount of greenhouse gases for whose emissions up to about HRK 20 to 25 million is allocated annually. Due to limited funding sources, the Company is not able to purchase ETS units at the best time, which significantly increases the risk of higher cost of greenhouse gas emissions in view of the price movement of ETS units in the open market. This was the case in 2017, and according to available estimates at the time of this report, the unfavorable growth trend of ETS prices is continuing in 2018.
- High costs of working capital - Due to the lack of own working capital, financing costs will continue to be significant in the next period. In 2018, there are pronounced risks in finding new long-term sources of investment financing, as it is very difficult to set aside funds from operations to continue the intensive investment process. Deadlines for realization of part of the so-called environmental investments, according to the Decision on Integrated Environmental Protection Requirements expired (31.12.2017), so due to funding difficulties most of these investments were transferred to 2018.
- The most important issue of current operating business - debt to natural gas suppliers - was partially solved in the reporting period through long-term HBOR and HPB loans and short-term ERSTE Bank loan, ensuring a part of the long-term sources of working capital for financing and continuation of business restructuring. However, the challenges of maintaining financial and business stability are still very much present. At the time of preparation of these reports, restructuring and recapitalization activities of the Company are underway, which will address some of the problems and risks mentioned.
- Trends in natural gas prices on the European spot market in 2017 call for caution due to a high exposure of Petrokemija's business results to the risk of the so-called 'price scissors', with simultaneously rising prices of raw materials, primarily natural gas, and falling sales prices of mineral fertilizers based on this raw material (Urea, CAN / AN).
- The losses in business in 2017 call for caution in forecasting financial and operating results for 2018, so the urgent completion of the restructuring and recapitalization process of the Company is vital to the continuation of business in 2018 and subsequent years.



## Ethics – Code of Business Conduct of Petrokemija d.d.

- ❑ Code of Business Conduct of Petrokemija, d.d. has the goal of providing all internal and external stakeholders with an overview of the ethical principles and standards of conduct that Petrokemija considers essential for successful business operations inside and outside the Company. Its purpose is to provide a framework for professional conduct and clear responsibility for individual decisions and activities, set high standards of work and business, define acceptable behavior of all employees of Petrokemija and avoid situations where the Company's employees would be involved in unethical and socially unacceptable behavior in their jobs.
- ❑ The Code of Business Conduct is available to the public at Petrokemija's website: (<https://petrokemija.hr/Portals/0/AKP/Code%20of%20business%20conduct.pdf>). Internal and external stakeholders may report unethical behavior by mail or email, by using ethics commissioner's mailbox, contacting the official in charge of irregularities and Internal Control, and by calling the phone number published on the Company website. If an employee notices events and situations that they consider to be a violation of the Code of Business Conduct, they must inform their immediate superior, ethics commissioner or official for irregularities. Confidentiality and anonymity is guaranteed.
- ❑ In the case of an ethical issue, employees can first contact the superior manager. If using that channel of communication is not acceptable, they may at any time contact the ethics commissioner.





## Management structure

The Company is currently run by a two-tiered Management Board. In accordance with the Statute, the members are appointed for a term of up to four years, during which they are responsible for certain areas of business. The members of the Company Board on the date of this report and during the reporting period are as follows:

- Đuro Popijač                      President since 6 February 2017
- Nenad Zečević                      President until 6 February 2017, member from 7 February 2017 to 2 January 2018
- Antonija Perošević Galović      Member until 6 February 2017
- Tamara Pernar                      Member until 6 February 2017
- Vladimir Fresl                      Member until 6 February 2017
- Davor Žmegač                      Member since 29 May 2017

### Members of the Supervisory Board:

- Mijo Šepak, President
- Željko Klaus, Deputy President
- Marijan Kuprešak
- Ladislav Turčinović
- Robert Blažinović

In accordance with the Company Statute, the Company Supervisory Board has established the Audit Committee. The work of the Committee is regulated by the Rules of Procedure. The Audit Committee, appointed in accordance with the law, has been active for the last four years, consisting of four members, all of whom are also members of the Supervisory Board. The Audit Committee at the date of this report was composed of:

- Marijan Kuprešak                      President
- Mijo Šepak                              Member
- Željko Klaus                              Member
- Ladislav Turčinović                      Member
- Robert Blažinović                      Member

# Stakeholders



STAKEHOLDERS	COMMUNICATION TYPE	STAKEHOLDERS	COMMUNICATION TYPE
<b>Employees</b>	- Intranet	<b>Local communities</b>	- Pensioners' club
	- Official web page		- Club 80+
	- Education and training		- Blood donors
	- Information		- Voluntary fire brigade
	- E-mail		- Donations and sponsorships
	- LinkedIn		- Official website
	- Business Report		- LinkedIn
	- Facebook		- Facebook
	- Instagram		- Instagram
	- Workers' Council meetings		- Direct (visits, meetings)
	- Safety Board		- In writing (e-mail, letters)
<b>Customers / users</b>	- Free phone	<b>State authorities</b>	-- Direct (visits, meetings)
	- Survey		-- In writing (e-mail, letters)
	- Direct (visits, audits, meetings)		- conferences and thematic meetings
	- Direct contact		- Memberships
	- Professional training		
	- Official web page		
	- Information		
	- Courier		
	- E-mail		
	- LinkedIn		
	- Facebook		
- Instagram			
- Business report			
- Fairs and meetings			

## Stakeholders (cont)



STAKEHOLDERS	COMMUNICATION TYPE	STAKEHOLDERS	COMMUNICATION TYPE
<b>Trade union and Workers' Council</b>	<ul style="list-style-type: none"> <li>- Regular and extraordinary meetings</li> <li>- Information</li> <li>- Notice boards</li> <li>- Quarterly reports</li> </ul>	<b>Financial public</b>	<ul style="list-style-type: none"> <li>- Financial reports</li> <li>- Business reports</li> <li>- Notifications on stock exchange</li> <li>- HANFA</li> <li>- Official website</li> </ul>
<b>Owners / shareholders</b>	<ul style="list-style-type: none"> <li>- Regular and extraordinary general meetings</li> <li>- Letters</li> <li>- e-mail</li> <li>- Official website</li> <li>- Business reports</li> <li>- Stock exchange, HANFA</li> <li>- HINA</li> </ul>	<b>Media</b>	<ul style="list-style-type: none"> <li>- Notifications</li> <li>- Regular and extraordinary conferences</li> <li>- Official website</li> <li>- Interviews, reports, notifications</li> <li>- Information</li> <li>- Facebook, Instagram</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>- Direct (visits, audits, meetings)</li> <li>- In writing (e-mail, letters)</li> <li>- Official website - fairs</li> </ul>	<b>Business and professional public</b>	<ul style="list-style-type: none"> <li>- Conferences</li> <li>- Professional publications</li> <li>- Memberships</li> <li>- Thematic meetings</li> </ul>

## Material aspects

Ten material aspects with appropriate qualitative and quantitative indicators will be presented:

### ECONOMIC CATEGORY

- Economic impact

### ENVIRONMENTAL CATEGORY

- Energy
- Water
- Emission
- Effluents and waste
- Environmental compliance

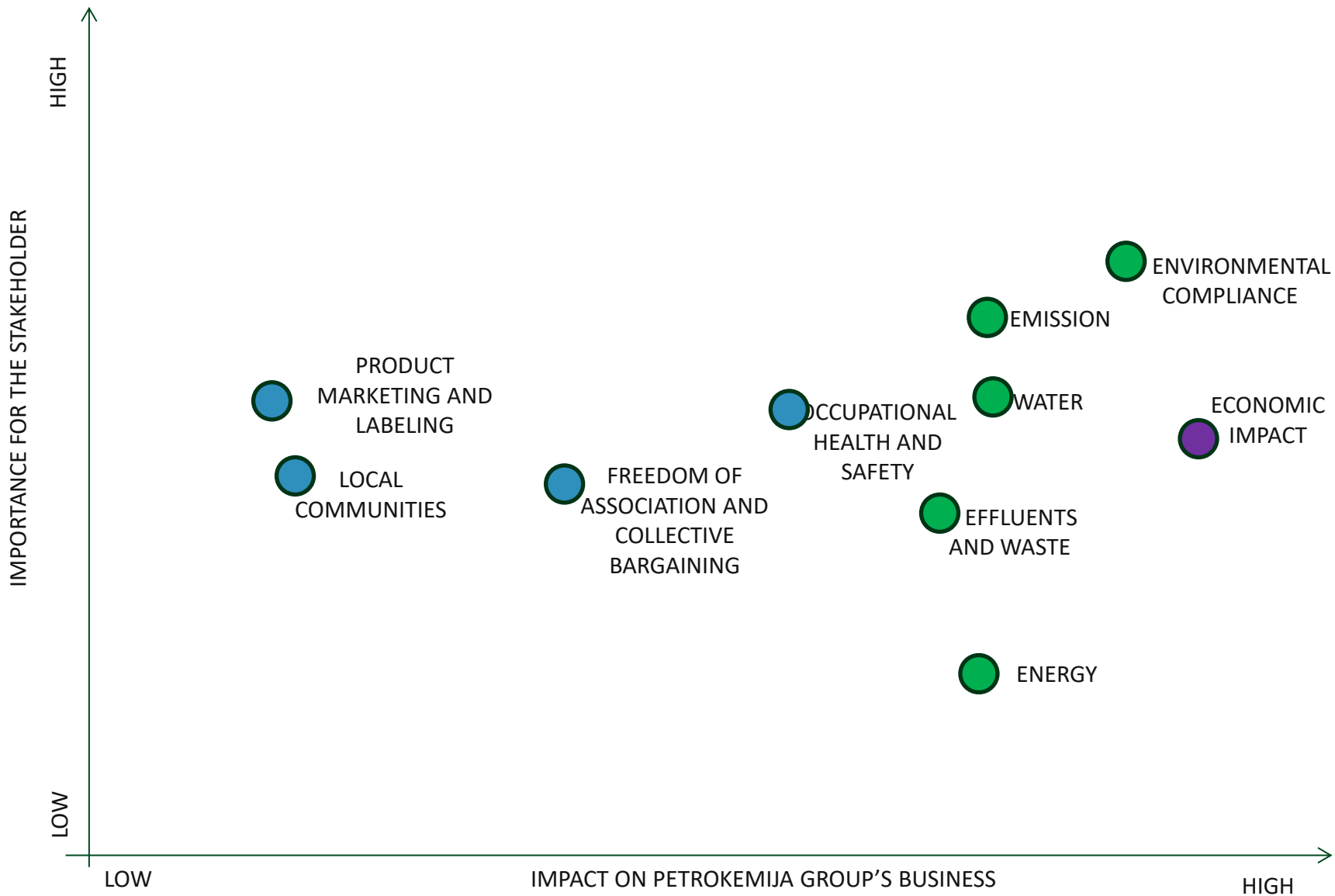
### SOCIAL CATEGORY

- LABOR RELATIONS AND DIGNIFIED WORK
  - Occupational health and safety
- HUMAN RIGHTS
  - Freedom of association and collective bargaining
- SOCIETY
  - Local communities
- PRODUCT LIABILITY
  - Product marketing and labeling





## Material aspects







## Communication practices

- Petrokemija d.d. has a long tradition of public communication, including that of reporting on financial operations, environmental protection and all other aspects of the Company business. Since 2003, the Company has been listed on the Zagreb Stock Exchange and regularly publishes all financial and non-financial information significant for its operations.
- We estimate that in the reporting period the Company website continued to be the most significant channel of communication with the internal and external environment of the Company and the Petrokemija Group.
- The non-financial report refers to period January to December 2017, referring to Petrokemija d.d. of the Petrokemija Group. Petrokemija Group is made of the parent company Petrokemija d.d. and its daughter companies: Petrokemija d.o.o. Novi Sad, Luka Šibenik d.o.o. and Petrokemija Agro Trade d.o.o. Kutina.
- Petrokemija d.d. and the Petrokemija Group have published the Non-financial Report in 2018 for the first time in accordance with Article 1, paragraph 1 of the Directive 2014/95 / EU. The Report supplements the usual financial and management reports with the information related to the company development and performance and the impact of its business on environmental, social and personnel issues as well as issues related to respect for human rights and the fight against corruption and bribery .
- Reporting cycle is annual, and in the preparation of this Report, Petrokemija d.d. and the Petrokemija Group conceptually rely on the provisions of the Global Reporting Initiative - in accordance with the Sustainability Reporting Guidelines GRI G4 - The Core Option, but we are aware of the necessity of further developing the application of this international framework over the next period on our specific economic entity.



### NEWS

WE REGULARLY PUBLISH THE MOST IMPORTANT CORPORATE NEWS SO THAT OUR CUSTOMERS AND SHAREHOLDERS ARE ALWAYS UP TO DATE WITH THE COMPANY'S CURRENT AFFAIRS.

[More](#)



### VIDEO

WE ALSO BRING YOU TIPS FOR THE CULTIVATION AND FERTILIZATION OF AGRICULTURAL CROPS IN VIDEO FORMAT. IF YOU FIND THEM USEFUL, PLEASE FORWARD IT TO YOUR COLLEAGUES AND CO-WORKERS.

[More](#)



### FOTO

IN A FEW PHOTO GALLERIES WE BRING YOU THE DAILY LIFE OF PETROKEMIJA: WORK IN THE FIELD WITH USERS OF OUR PRODUCTS AND PHOTOGRAPHS OF OUR PLANTS.

[More](#)

<https://petrokemija.hr/en-us/Media>

# Economic series – 200

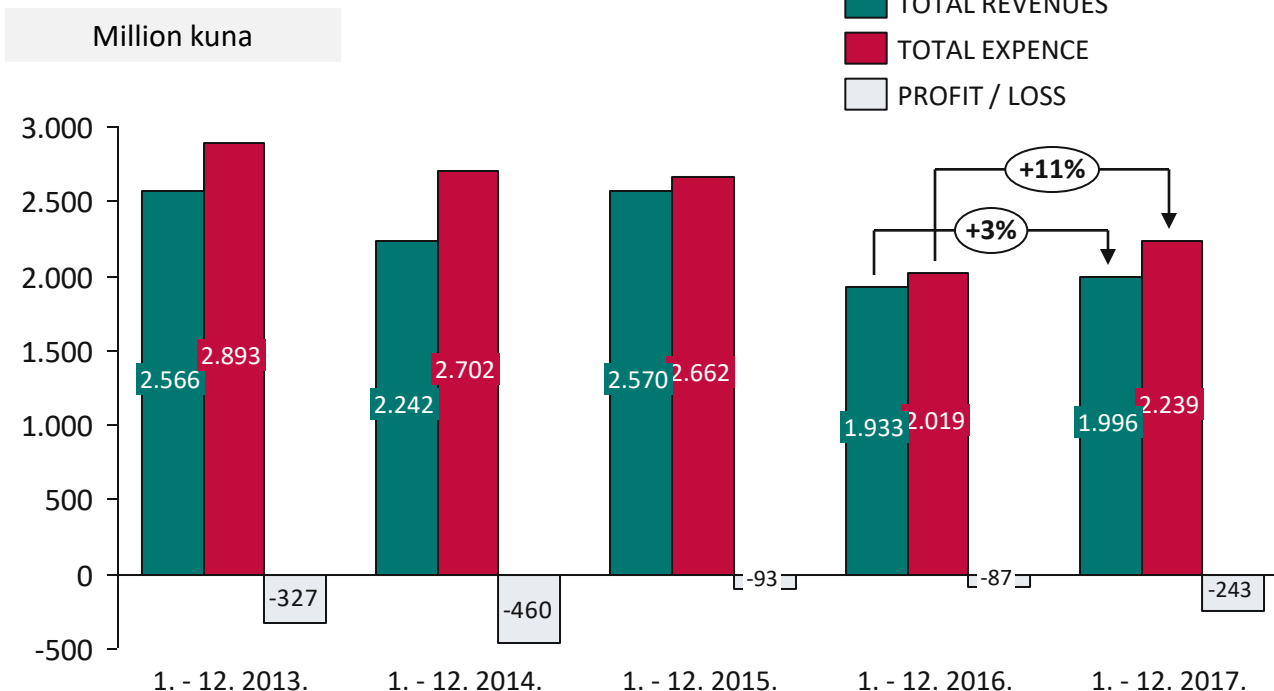
201 – economic impact



## Profit & Loss Account of Petrokemija d.d. 2013 - 2017

■ Total revenues	HRK 1,996.2 million,
■ Total expenditure	HRK 2,238.8 million,
■ Loss	HRK -242,6 million
■ EBITDA	HRK -99.7 million,
■ EBITDA margin (%)	-5.0 %.

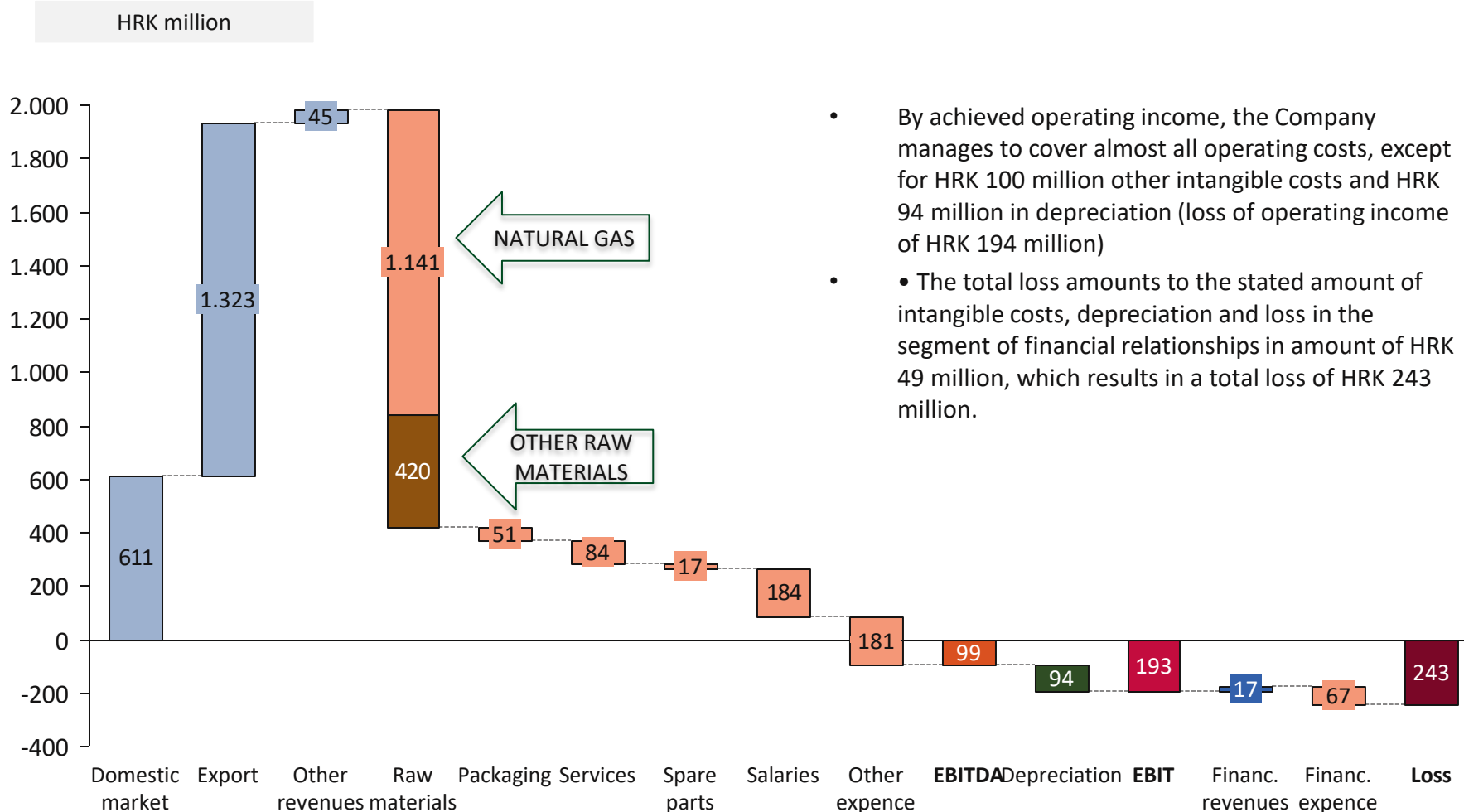
In the reporting period from Jan to Dec 2017, the business environment of Petrokemija d.d. is characterized by two key phenomena - the drop in sales prices of mineral fertilizers with the simultaneous growth of the natural gas purchase price as the main raw material. Despite unfavorable conditions in the narrower and wider economic environment, in 2017 Petrokemija d.d. increased production by 11.5% and sales of mineral fertilizers by 7.5%, compared with the same period of the previous year.



In the period Jan to Dec 2017, Petrokemija d.d. generated total revenues of HRK 1,996.2 million, total expenditures of HRK 2,238.8 million, and reported a loss of HRK 242.6 million or 12.2% of total revenues.



# Structure of revenues and expenditures of Petrokemija d.d. Jan-Dec 2017



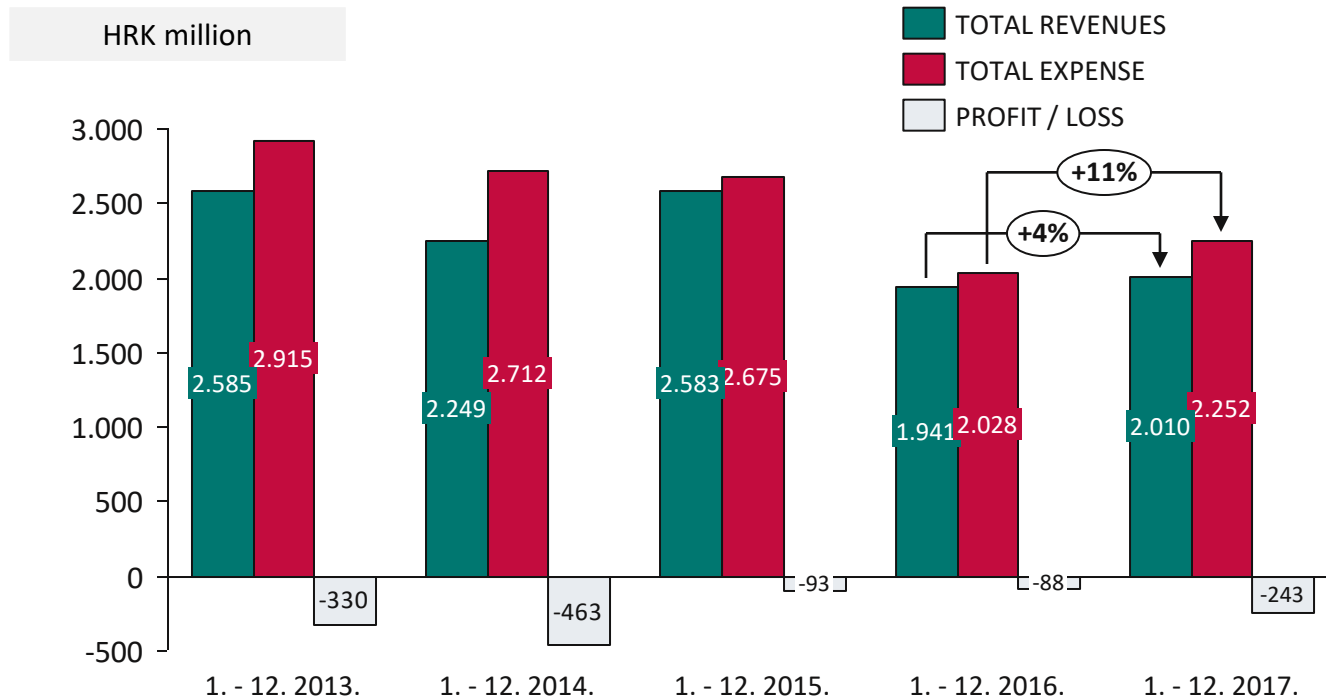
- By achieved operating income, the Company manages to cover almost all operating costs, except for HRK 100 million other intangible costs and HRK 94 million in depreciation (loss of operating income of HRK 194 million)
- The total loss amounts to the stated amount of intangible costs, depreciation and loss in the segment of financial relationships in amount of HRK 49 million, which results in a total loss of HRK 243 million.



## Profit & Loss Account of Petrokemija Group 2013 - 2017

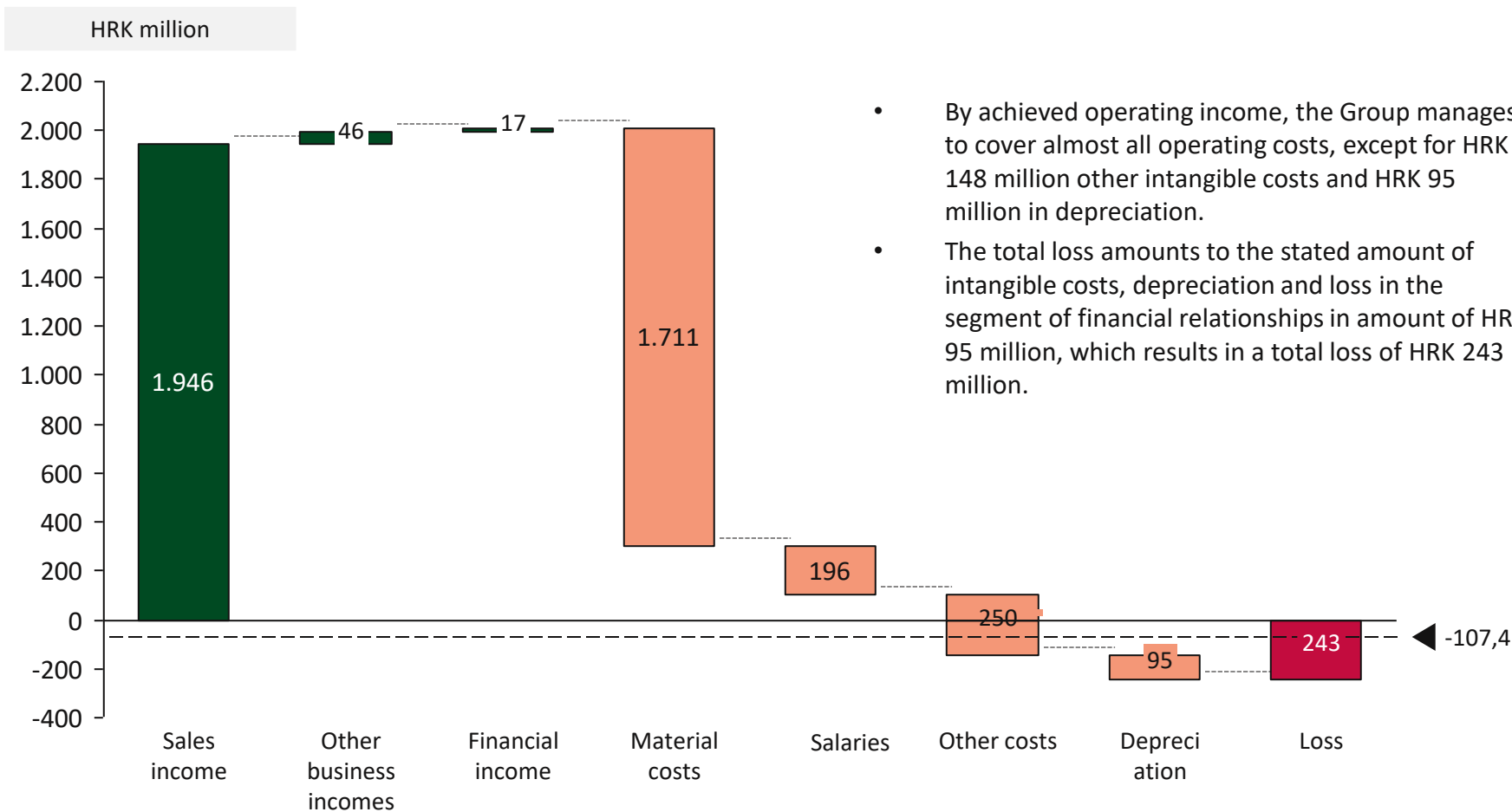
■	Total revenues	HRK 2,009.5 million,
■	Total expenditures	HRK 2,252.2 million,
■	Loss	HRK 242.7 million,
■	EBITDA	HRK -107.4 million,
■	EBITDA margin (%)	-5.4 %.

In the period from Jan to Dec 2017, Petrokemija Group generated total revenues of HRK 2,009.5 million, total expenditures of HRK 2,252.2 million and reported a loss of HRK 242.7 million or 12.1% of total revenues .





# Structure of revenues and expenditures of Petrokemija Group Jan-Dec 2017





# Environmental series – 300

GRI 302: ENERGY

302-1: Energy consumption within the organization

GRI 303: WATER

GRI 303-1: Total water withdrawal at source

GRI 305: EMISSIONS

GRI 305-1: Direct emissions of greenhouse gases (scope 1)

GRI 305-5: Reduction of greenhouse-gas emissions

GRI 305-7: NO<sub>x</sub>, SO<sub>x</sub> and other significant emissions into air

GRI 306: EFFLUENTS AND WASTE

GRI 306-1 Total discharge of water by quality and destination

GRI 306-2 Total weight of waste by type and disposal method

GRI 307: ENVIRONMENTAL NON-COMPLIANCE

GRI 307-1 Non-compliance with legal environmental regulations



## Environment

- The overall goal of Petrokemija d.d. is to improve the efficiency of the environmental management system to achieve more effective environmental protection and environmental pollution prevention.
- The Quality, Environment, Energy, and Sustainable Development Policy provides the framework and main guidelines for strategic action in quality and environmental management.
- Product specifications - available on Petrokemija d.d. website.
- Product Safety Data Sheets - available on Petrokemija d.d. website.
- Annual environmental reports - available on the Petrokemija d.d. website.

### Product Specification

Title	
UREA N 46	↓
Petroblue	↓
KAN N(MgO) 27(4,8) granulated	↓
KAN N(MgO) 27(4,8) prilled	↓
Ammonium nitrate N 33,5 prilled	↓
Ammonium nitrate 34,8 % N porous, absorption 6	↓
Ammonium nitrate 34,8 % N porous, absorption 12	↓
UAN	↓
PETROKEMIJAS	↓
Ammonium sulphate nitrate ASN 26 N + 15 S	↓
NPK(SO3) 5-15-15(18)	↓
NPK(S) 15-15-15(3)	↓
NPK 15-15-15	↓
NPK(S) 20-10-10(3)	↓
NPK 20-10-10	↓
NPK(MgO) 13-10-12(4)	↓

### Safety Data Sheet

Title	Category
UREA N 46	Fertilizers
PETROKEMIJAS - Ammonium Sulphate Granulated 20N+24S	Fertilizers
Ammonium Sulphate Nitrate ASN 26 N + 15 S	Fertilizers
NPK and NP with AN	Fertilizers
KAN	Fertilizers
AN N 33,5	Fertilizers
UAN N 30	Fertilizers
Fertina B	Fertilizers
Ammonia Solution 25%	Chemicals
Ammonia Solution 24,5%	Chemicals
Ammonium Nitrate 34,8% N	Chemicals
Nitric Acid	Chemicals
Ammonia Anhydrous	Chemicals
Sulphuric Acid	Chemicals
PetroBlue	Chemicals

### Environment protection report

Title	
Report for 2017.	↓
Report for 2016.	↓
Report for 2015.	↓
Report for 2014.	↓
Report for 2013.	↓
Report for 2012.	↓
Report for 2011.	↓
Report for 2010.	↓

<https://petrokemija.hr/en-us/About-us/Environment>



## Disposal of packaging

- Disposal of packaging - customers can arrange free disposal or handing over the non-hazardous waste packaging, i.e. bags of fertilizer with an authorized company: DRAVA INTERNATIONAL d.o.o. Osijek.
- It is also possible to dispose of fertilizer waste bags into the existing waste plastic containers of the above company or arrange for providing of the dedicated containers for that purpose.
- Packaging contaminated with ammonium nitrate N 34.8% and N 33.5% is disposed of through hazardous waste disposal companies with key number 150110 \* in agreement with Petrokemija d.d.





## Environmental protection

- Petrokemija d.d. began the development of the environmental protection system in the early seventies and is constantly upgrading and improving it. This commitment of the Company has resulted in the successful establishment of the Environmental Management System in accordance with the international ISO 14001 standard, certified by Lloyd's Register. The transition to a new standard ISO 14001: 2015 and recertification is in progress.
- Environmental action is implemented through a documented system through the organizational structure of the Management Board to every employee working for and on behalf of Petrokemija and with the assistance of professional services.
- Environmental care is built into Petrokemija's business policy. The continuous improvement of the Environmental Management System is carried out in accordance with the adopted programs with the aim of preventing and reducing environmental pollution and compliance with legally prescribed requirements.
- To reduce adverse environmental impacts, we take care of our products throughout the life cycle: from choosing better quality raw materials, through product process improvement, warehousing, packaging and distribution, and providing expert assistance to users for the proper use of our products. We monitor our production processes and evaluate their performance and improvements against highly-set standards. The quality of the air is monitored by measuring the concentration of 4 pollutants at 4 measuring stations in Kutina. Particular importance is given to the quality of wastewater and production of waste that is selectively collected by exploiting valuable properties and / or controlledly disposed in the prescribed manner. With the aim of working more effectively in the environmental protection system, we cooperate with professional and scientific institutions.
- As a result of the implementation of environmental protection measures in Petrokemija, there is constant improvement of the quality of wastewater and the air in residential areas. We report about the impact of Petrokemija's activities on the environment to the state administration bodies and the public. In continuous improvement of environmental protection, we strive to meet the requirements of world standards in the field of environmental management.

## Energy – energy consumption within the organization

- ❑ Total fuel consumption from non-renewable energy sources in 2017 was 22,258,514.6 GJ, which is 8.8% more than in 2016 (20,450,874.4 GJ). This includes 22.258.358 GJ (99.99%) natural gas consumption, 101.2 GJ diesel fuel, 52.5 GJ acetylene and 9.8 GJ propane butane with a joint share of <0.01%. Natural gas is used as generator of steam -53% (used in production processes and for electricity production) but also as raw material for the production of ammonia -47%. All the steam and electricity produced is spent within the organization.
- ❑ In Petrokemija d.d. no fuel from renewable energy sources is used.
- ❑ In total, 43,910,217 kWh of electricity was purchased from external sources (158,076.8 GJ).
- ❑ Within the organization, a total of 22,416,591.4 GJ energy was consumed.
- ❑ All these data refer to Petrokemija d.d. (within the battery limits). Data on natural gas consumption were obtained using moderate turbine flow meters under the supervision of the gas transmission system operator. Fuel consumption, acetylene and propane butane are monitored by means of the invoices as well as the quantity of purchased electricity.



## Water – total water withdrawal at source

- ❑ In Petrokemija d.d. significant quantity of crude water is consumed as raw material for the preparation of decarbonated, demineralised, cooling water, sanitary water and water vapor at own plants (Water Preparation, Treatment and Distribution Facility 1 and 2). Water is supplied from own water reservoirs (reservoirs Ilova and Pakra) and a small part from the Kutina water supply system (drinking water).
- ❑ The total input volume in 2017 was 7,851,658 m<sup>3</sup>, which is 10.4% more than in 2016.
- ❑ The volume of water withdrawn from own water supply in 2017 amounted to 7.848.275 m<sup>3</sup>, of which:
  - 27.4% from Ilova Lake
  - 72.6% from Pakra Lake
- ❑ Intake volume of drinking water from the city grid used in production processes in 2017 amounted to 3,383 m<sup>3</sup>.
- ❑ Data on withdrawn water were obtained by measurement.





## Emissions – direct emissions of greenhouse gases (scope 1)

- There are activities in Petrokemija d.d. that cause greenhouse gas emissions (GHG) so the Company is included in the European GHG Emission Trading Scheme (EU ETS). Emissions of greenhouse gases are primarily generated by combustion processes (most commonly combustion of natural gas), i.e. production of energy and ammonia (CO<sub>2</sub> emissions) and nitric acid production process (N<sub>2</sub>O emission). Fuel combustion involves: natural gas (99.99%) and diesel fuel, acetylene and propane butane (<0.01%).
- Direct greenhouse gas emissions (scope 1) are shown in Figure 1. In 2017, emissions of 1,333,601 tons of CO<sub>2</sub> equivalent were generated. Slight growth of total greenhouse gas emissions was due to higher production.

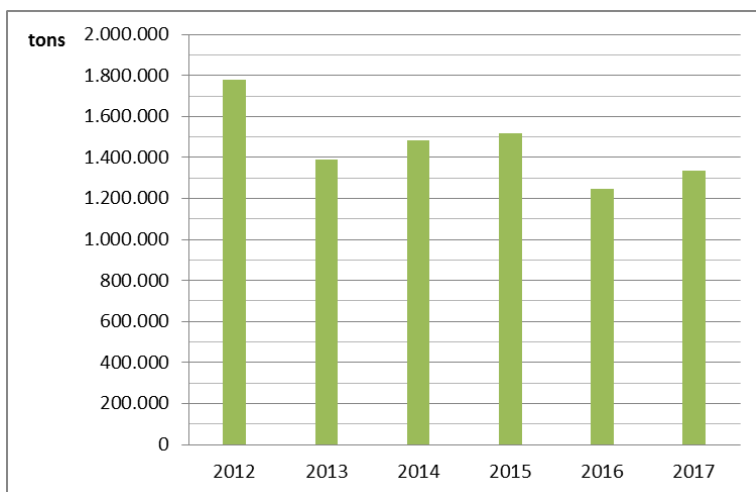


Figure 1.

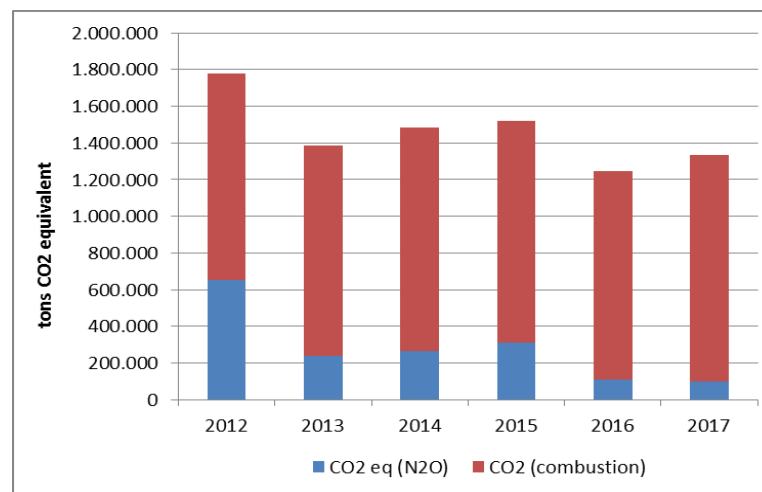


Figure 2.

- The most common greenhouse gases in the total air emissions from Petrokemija d.d. are carbon dioxide (CO<sub>2</sub>) and dinitrogen oxide (N<sub>2</sub>O), which make up about 99% of total air emissions. In the total greenhouse gas emissions in 2017, CO<sub>2</sub> accounts for 93% and N<sub>2</sub>O 7%.
- The year 2012 was taken as base year as then the reconstruction of the plant for the installation of the N<sub>2</sub>O emission reduction catalyst (GRI 305-5) was started.

## Direct emissions of greenhouse gases (scope 1)

- N<sub>2</sub>O emissions are determined by continuous measurement of N<sub>2</sub>O concentrations in flue gas (waste) and of flue gas flow (since 2013 at Nitric Acid 2 and since 2014 at Nitric Acid 1) and expressed as CO<sub>2</sub> equivalent (CO<sub>2</sub>eq) emission using N<sub>2</sub>O conversion factor in CO<sub>2</sub> eq of GWP (global warming potential), which amounts to 298 t CO<sub>2</sub>eq / t N<sub>2</sub>O according to Commission Regulation 206/2014. Measurements are performed using methods based on HRN EN 14181 Stationary Source Emissions - Quality Assurance of Automatic Metering Systems and HRN EN 15259 Air Quality - Emission Measurement from Stationary Sources - Requirements for metric cross sections, locations and metering target, plan and report. Until the introduction of continuous measurement, the N<sub>2</sub>O concentration was determined by individual measurements by the laboratory in accordance with the Greenhouse Gas Emission Monitoring Plan.
- Emissions from the combustion process are determined by a calculation methodology based on the measurement of the amount of spent fuel and the fuel analysis performed by the accredited laboratory, i.e. by using conversion factors depending on the type of fuel.





## Reduction of greenhouse-gas emissions

- ❑ In recent years, Petrokemija d.d has implemented measures to reduce greenhouse gas in direct emissions (scope 1), primarily by reducing emissions from nitric acid production processes at Nitric Acid 1 (DUKI 1) and Nitric Acid 2 (DUKI 2) Plants.
- ❑ The measures included the installation of secondary catalysts for the reduction of  $N_2O$  emissions (De- $N_2O$ ) in November 2012 at the DUKI 2 Plant and in 2013 at the DUKI 1 Plant. Due to technical problems of the plants and the lack of expected emission reductions, further reconstruction was carried out in 2016 by increasing the secondary catalyst layer which resulted in the expected reduction of emissions.
- ❑ 2012 was selected as the base year for the above reconstructions that began at the end of the year. Emission reduction in 2017 compared to the base year is 91% for the DUKI 1 Plant and 73% for the DUKI 2 Plant.

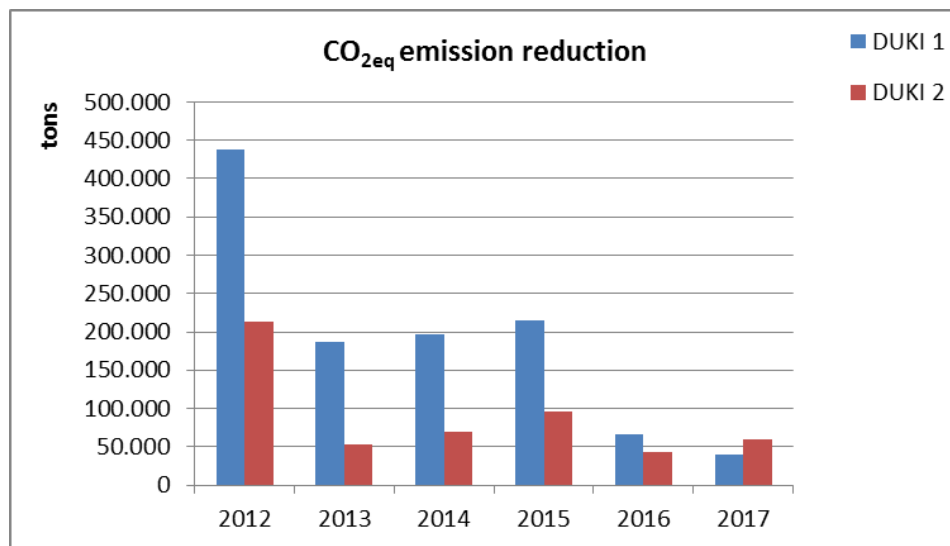


Figure 3.



## NOx, SOx and other significant emissions into air

- Next to greenhouse gases emissions, other typical pollutants from the technological processes of Petrokemija d.d. are ammonia, nitrogen dioxide, sulfur dioxide, dust and fluoride.
- Pollutant emissions into air are measured periodically (individual measurements) or continuously (continuous analyzers) in accordance with the national legislation. Occasional measurements at the measurement stations are carried out by the laboratory that has the approval of the Ministry for conducting air emission monitoring activities using accredited methods, in accordance with the requirements of HRN EN ISO / IEC 17025. Verification of accuracy of the continuous measurement system (analyzer) is performed by the laboratory in accordance with the requirements of HRN EN 14181 which has the approval of the competent ministry.
- Emissions into air are within the effective emission limit values except for five outlets at NPK 1 Plant and one outlet at the plant for production of clay-based products, animal feed supplements and liquid fertilizers.
- In order to further improve the situation and reduce the adverse impact on the environment, harmonization with the best available techniques (BAT) is carried out by implementing harmonization measures for existing plants with the provisions of the legal regulations contained in the Decision on Integrated Environmental Protection Requirements (Environmental Permit) of 10 July 2015.
- Figure 4 shows emissions of air pollutants from the Petrokemija d.d. plants for the period 2012 - 2017 (data for 2017 are not verified and are subject to change). There is a noticeable increase in total emissions resulting from increased production.

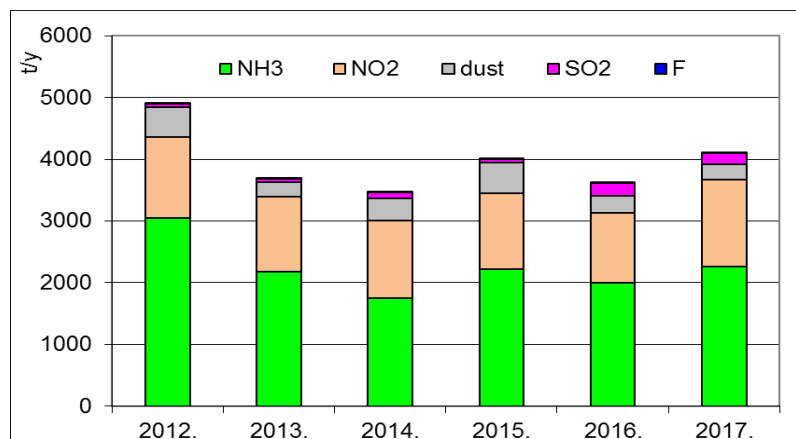


Figure 4.





## Effluents and waste

### Total discharge of water by quality and destination

GRI 306: Effluents and waste

GRI 306-1: Total discharge of water by quality and destination

- Petrokemija d.d. has a mixed sewerage system wastewater that is discharged from the Petrokemija battery limits into the lateral canal and are controlled at the control shaft D at Krč Canal. Petrokemija has two wastewater treatment plants. At the plant using the ion-exchange method (Water Preparation, Treatment and Distribution Plant 2) nitrogen-loaded process wastewater is processed and returned to the process. Fluoride-loaded wastewater is processed at another plant by a limestone neutralization method (Phosphoric Acid Plant - Neutralization Section S-41300) and, after treatment, is discharged into to the lateral canal (before control shaft D).
- The quantity and quality of the discharge water is presented in Table 1 and the parameters monitored are defined by the Decision on Integrated Environmental Requirements (Environmental Permit) of 10 July 2015.

**Table 1.** Quantity and quality of discharged water of Petrokemija d.d.

Indicator	Unit	Control shaft D		Outlet F	
		2016.	2017.	2016.	2017.
<b>Amount</b>	m <sup>3</sup>	4.523.224	4.357.947	24.671	15.587
<b>Chemical oxygen demand (COD<sub>Cr</sub>)</b>	mgO <sub>2</sub> /l	31,0	25,8	60,3	66,7
<b>Biochemical oxygen demand (BOD<sub>5</sub>)</b>	mgO <sub>2</sub> /l	11,9	8,8	17,0	7,58
<b>Fluoride (F<sup>-</sup>)</b>	mg/l	0,2	0,3	15,55	12,0
<b>Total nitrogen (N)</b>	mg/l	15,2	14,4	-	-

- The most significant impact on eutrophication of water is nitrogen discharge. Total nitrogen discharge per unit of product (calculated by taking into account the total fertilizer production and total nitrogen discharged) in 2017 was 1.24 kg / t, which is 6% less than in 2016.



## Effluents and waste

### Total weight of waste by type and disposal method

GRI 306: Effluents and waste

GRI 306-2: Total weight of waste by type and disposal method

- In Petrokemija d.d., hazardous and non-hazardous waste is generated, the amount of waste being shown in Figure 5.
- In 2017, Petrokemija produced 3,570.1 t of non-hazardous waste and 29.4 tons of hazardous waste (data not verified and subject to change). Most of the non-hazardous waste (about 70%) is disposed at the non-hazardous waste disposal site of Petrokemija, the phospho-gypsum landfill S-41100, for which Petrokemija has an appropriate permit for waste management of the competent ministry. All hazardous waste is handed over to authorized collectors.
- The method of disposal by type of waste is shown in Figure 6.

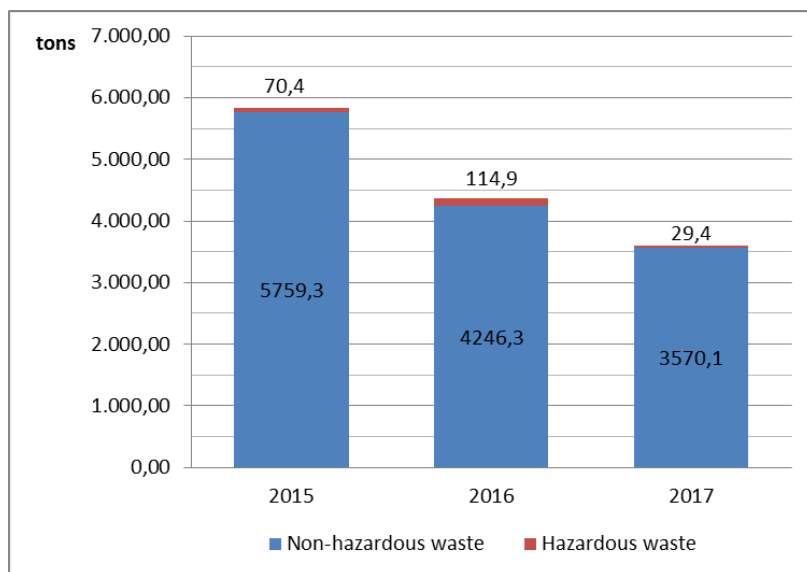


Figure 5.

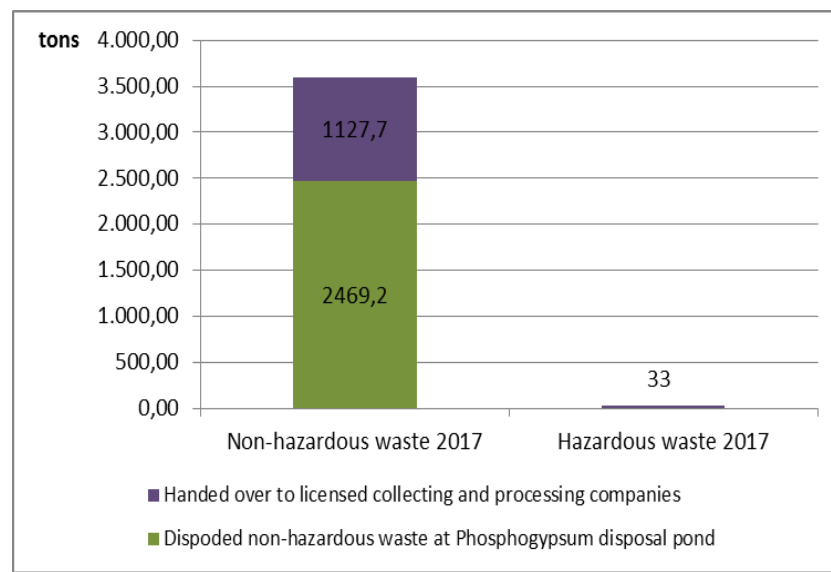


Figure 6.



## Environmental non-compliance – non-compliance with environmental protection legal regulations

- ❑ The quality of air of the City of Kutina is monitored by the state network at the automatic measuring station Kutina 1 and the local network at four semiautomatic measuring stations.
- ❑ According to the annual reports on air quality in the Republic of Croatia, in the City of Kutina in 2013, 2<sup>nd</sup> category air quality was determined for ammonia at the state measuring station Kutina 1. Furthermore, 2<sup>nd</sup> category air quality for ammonia was conditionally determined at the state measuring station Kutina 1, while in 2014, 1<sup>st</sup> air quality category was conditionally determined for ammonia at the state measuring station Kutina 1, and 2<sup>nd</sup> category at the local network station K-7 Krč.
- ❑ Based on the Air Protection Act, the Action Plan for the Reduction of Ammonia Emissions in the City of Kutina was adopted in July 2016. Since Petrokemija d.d. is the most significant ammonium emitter in the Kutina area, the Plan includes the measures to reduce ammonia emissions from Petrokemija's production processes. Defined measures are in the implementation phase, which is reported regularly to the competent ministry, as the measures are a part of the Integrated Environmental Protection Requirements. (Environmental Permit).





# Social series - 400

403 – Occupational health and safety

407 - Freedom of association and collective bargaining

413 – Social community

417 – Product marketing and labeling

417-1: Requirements for information on products and services and labeling

417-2: Incidents of non-compliances regarding information on products and services and labeling

417-3: Incidents of non-compliances regarding marketing communication

## Safety – our priority

- We manage the safety and healthcare system, we constantly improve it, and thus achieve safe working conditions for employees, suppliers, visitors, property, and safety of the environment.
- A high level of safety is achieved by the established safety management system that includes the highest level of health and safety protection and is one of the Company's priorities - Safety Policy.
- We maintain the safety system by identifying work process risks and constant monitoring. To this end we train employees at all levels and regularly maintain process and control equipment.
- We analyze all the incidents and take measures so they would not repeat.
- We pay special attention to the major accident risk assessments and their consequences using the best software tools and accordingly we plan the resources and means of protection.



- Petrokemija's Safety Management System, is based on the OHSAS 18001 standard, the Regulation on the Prevention of Major Accidents Involving Hazardous Substances (Annex 4), the Principles of Safety in Fertilizer Production Fertilizers Europe - Product Stewardship and the International Association of Fertilizer Manufacturers (IFA).
- The occupational health and safety management system is harmonized with the integrated management system (HRN EN ISO 9001, HRN EN ISO 14001) according to the common general principles of management set out in the Quality and Environmental Manual.
- The goal of Petrokemija d.d. is to manage the system of safety and health protection, to constantly improve it and thus to achieve safe working conditions without adverse consequences on the health of employees, suppliers, visitors, product users (customers) and the local, national and international environment.
- During the period Jan to Dec 2017, 50 injuries were recorded at work in functions as follows: in Fertilizer Production 14, Maintenance 19, Transport and Logistics 7, Quality and Environmental Management 5, Finance and Controlling 2, Pallet Production 2 and Corporate Functions 1. There were 10 severe injuries, 40 light ones; 47 recognized, and 3 were not recognized.
- 765 employees were sent to medical examinations, of which limited working capacity was determined for 130 workers, while 1 was unable to work.
- 26 employees of Petrokemija d.d. have been trained in work safety and 687 external ones, from 132 companies.



## Freedom of association and collective bargaining

- Petrokemija d.d. supports and respects employees' rights to freedom of association and collective bargaining.
- There are three unions in Petrokemija. According to their own choice, employees can be members of the Autonomous Trade Union of Workers in Power Industry, Chemistry and Non-Metal Industry, EKN Petrokemija, Democratic Union DEMOS-HUS, Petrokemija Kutina and Trade Union of INA and Oil Industry.
- Out of 1572 employees as of 31 December 2017, there were 1383 members of a trade union, which is 88%.
- Collective Agreement for Petrokemija, d.d. applies to all employees unless their individual contracts are otherwise regulated. In 2017, there was no collective bargaining.





## Local Communities

- In its business, Petrokemija d.d. devotes considerable attention to communication with all its stakeholders, from employees and shareholders to customers, the financial and the local community. The communication runs throughout the year, continually or when necessary. Since it is a chemical industry and there is a risk of environmental pollution, particular attention is paid to communication with the local community, through numerous press releases (there were 54 in total in 2017), posted on the official website as well as announcements at the local radio station, Radio Moslavina, and on the website of the City of Kutina.
- Below are some of the most important ways of communication and involvement of stakeholders, as well as activities during the reporting period.

### Corporate bulletin - Informacije

The bulletin includes all business-related news, as well as issues related to employees, retirees, veterans, firefighters, etc. The bulletin comes out on average twice a month and is printed in 600 copies. It is distributed to employees free of charge at several locations in the Company. Informacije has been published for almost 50 years and in December 2017 its 2862nd issue was printed.

### Corporate newsletter - Glasnik

It comes out once a month and is sent to customers by email. It publishes fertilizer application tips, announcements of discounts and special offers, as well as field day reports, fairs, etc. The newsletter is also posted on the Company website and can be downloaded free of charge.

### Official website

At <https://petrokemija.hr/en-us/> you will find the most important information on products, business and other activities of Petrokemija d.d.



## Local communities (cont)

### Social networks

In line with the modern trends, at the end of 2017, we opened Facebook and Instagram Company profiles, where we also post all news and interesting facts related to Petrokemija d.d. Our profile is also used to promote the quality of our products and services and to communicate with our customers, employees and citizens. The Company has its own YouTube channel where fertilizer application and promotional videos are shown.

### Fairs

In 2017, Petrokemija d.d. participated in a total of six fairs. Some of these fairs were held abroad (Slovenia, Bosnia and Herzegovina, Serbia) and the rest in Croatia.

- In the reporting period, the Company had 61 announcements for shareholders on the Zagreb Stock Exchange, and two press conferences were organized. We are also open for various professional visits, and in 2017, we hosted French chemistry students, participants of the Croatian Military Academy and the Ban J. Jelačić War School, as well as students from Velika Gorica, Zagreb, Slavonski Brod and Osijek.



## Sponsorships and donations

- Petrokemija d.d. supports the work of several associations, such as IDVD Petrokemija (Volunteer Industrial Fire Brigade), the Association of Croatian Veterans of Petrokemija, the Petrokemija Voluntary Blood Donors' Association and Petrokemija Retirees' Association. Some of these associations have more than several hundred members (donors and retirees), and the Company backs them financially, by giving them office space and media coverage in its publications.
- Petrokemija d.d. cooperates with the community through numerous sponsorship and donation programs.
- The Company is the sponsor of the Secondary Technical School Kutina, which has the status of eco school. It also has advertising contracts with the Moslavina Handball and Football club, which in their younger categories have a large number of children.
- We have donated mineral fertilizers for maintenance of playgrounds to numerous sports clubs in and outside the Kutina area e.g. to FC Mladost, Gračnica, FC Mitnica, Vukovar, FC Voloder, FC Brinjani and FC Lokomotiva, Kutina.
- We are sponsors of MoslaVina wine show which is held in Kutina every May, and we also donate to schools, the Kutina Sports Center and others.





# Product marketing and labeling

## 1. MANAGEMENT APPROACH (GRI 103-1, 103-2, 103-3)

### 103-1: EXPLANATION OF MATERIAL TOPICS AND BOUNDARIES

- As Petrokemija puts on the market fertilizers and chemical products, labeling, security and environmental information, as well as customer information are material topics and apply to all products.

### 103-2: MANAGEMENT APPROACH AND ITS COMPONENTS

- The overall objective is to evaluate all impacts of raw materials and products on health and the environment. To this end, Petrokemija carries out the classification of all chemical substances, raw materials and finished products with regard to potential hazards in accordance with European and global labeling, packaging and transport regulations. These procedures apply to all Petrokemija's products and raw materials.
- The above issues as well as the local information requirements defined by the regulations such as the national fertilizer regulations, where applicable, are governed by the Company organizational unit Chemicals Management.

### Product management and safety

- Petrokemija takes appropriate measures to ensure the proper handling of own products in accordance with the principles of the Product Management standard of the Association of European Fertilizer Manufacturers, Fertilizers Europe. These measures apply to packaging, sorting, labeling, manipulation, storage and transport.
- All organizational units of Petrokemija have the responsibility of applying the Product Management Program. External verification of compliance with Fertilizers Europe's requirements for Product Management was first implemented in 2014 and then again in 2017. The next verification will be in 2020.
- Petrokemija prepares product files, handling and storage instructions and waste disposal information. The company operates in accordance with applicable standards and regulations and cooperates with national and European industrial associations.

## Marketing and labeling tasks

- Creation and approval of national, European and global product labels.
- Creation and approval of European and global safety data sheets and packaging.
- Records of raw materials and finished products in databases.
- Customer support in their handling, safety and labeling inquiries.
- Implementation of prohibited and restricted substances program.
- All products are accompanied by a safety data sheet in accordance with EU legal requirements and with global and national requirements. Packaging and labeling are controlled in terms of local and global compliance as well as the regulations of Petrokemija d.d. about branding and labeling of products.





## Disclosure of specific topics (GRI 417-1, 417-2, 417-3)

- Petrokemija's Products are labeled in accordance with legal requirements regarding composition, agricultural nutritives and information on safety and health and environment protection. Petrokemija d.d. provides additional information (such as handling and storage instructions).
- For each fertilizer or chemical product of Petrokemija, an assessment of the effects on health and the environment was carried out.
- Each of the following information is prescribed by organizational procedures for product labeling and information:
  - composition, especially for products that can affect the environment and the community,
  - instructions for handling and storage and safe use of the product; all of our products are marked with storage symbols,
  - disposing of products and influence on the environment and the community; all of our products are in compliance with the requirements
  - the name and address of the manufacturer are listed on all of our products.
- Petrokemija's products have labels on the packaging material. These symbols help consumers recycle the waste material.
- In addition to the prescribed label on the packaging, an optional labeling can be added to inform the consumer about the corporately responsible company. Such labeling may include ISO standard markings such as ISO 9001, ISO 14001 and ISO 50001.
- Petrokemija posts the most important information about product labels and certificates on their official website (<https://petrokemija.hr/en-us/> ).

417-1	Requirements for product and service information and labeling	All Petrokemija's products are assessed comply with labeling requirements and are in compliance with relevant regulations. <b>Petrokemija – Products and services</b> <b>Safety data sheets of Petrokemija</b>
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## Policy and commitments

- All products and services regarding the supply and labeling of products are regulated by national regulations, EU regulations and international codes and laws that Petrokemija d.d. is fully committed to align with.
- The products on the markets of the European Union and European Economic Area as well as on the global market are in conformity with:
  - European Fertilizer Regulation (EC Regulation No 2003/2003),
  - CLP Regulation on Classification and Labeling of Chemicals (EC Regulation No. 1272/2008),
  - REACH Chemicals Regulation (Regulation EC No 1907/2006),
  - Globally Harmonized System of Classification and Labeling (GHS),
- Petrokemija's procurement, production and sales are in compliance with the product management requirements of the European Fertilizer Manufacturers' Association, Fertilizers Europe.
- Petrokemija is certified in accordance with globally recognized standards: ISO 9001 Quality Management System, ISO 14001 Environmental Management System and ISO 50001 Energy Management System.
- We also have certificates for other standards such as the ISO 22241 standard for the AUS 32 NOx reducing agent for diesel engines.





## REACH and CLP

- Packaging and labeling are controlled for compliance with local, European and global regulations and with Petrokemija's procedures.
- CLP is Regulation (EC) No. 1272/2008 on Classification, Labeling and Packaging of Substances and Mixtures. The main requirement for risk communication set up by the CLP Regulation is product labeling. The label on hazardous chemicals packaging should provide basic information on hazards and key labeling information for people who manipulate the product.
- Petrokemija's products are evaluated, classified and labeled in accordance with the CLP Regulation. The packaging of chemical products has the appropriate CLP label.
- According to the CLP Regulation, hazardous substances and mixtures have a label containing the following information:
  - Name, address and telephone number of the supplier,
  - Product identification numbers (details on chemical identification, such as name, CAS number, IUPAC name, etc.),
  - Nominal weight of the chemical in the package,
  - Hazard statements,
  - Precautionary statements.
- Since 2007, Regulation (EC) No. 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH Regulation) constitutes the European legal framework for safe handling of chemicals for the purpose of protecting the environment and human health. REACH has accepted and upgraded the existing system of information forwarding to chemical users in a structured manner through safety data sheets.



## REACH and CLP (cont)

- With each product sold to the customer, Petrokemija d.d. submits a safety data sheet containing specific and detailed information, including the appropriate handling of the product. These safety data sheets are readily available for download on the official company website via the Safety Data Sheets of Petrokemija link. The information in the safety data sheets has been supplemented in accordance with CLP requirements.
- Petrokemija has set up an organizational unit Chemicals Management to ensure that all chemical labeling activities are coordinated.
- Our employees trained for REACH and CLP are ready to advise our suppliers and customers for the purpose of:
  - ensuring a system of use and supply consistent with the requirements of the REACH Regulation,
  - support regarding many issues in the field of REACH and CLP,
  - assistance with chemicals from import.







## Incidents of non-compliance

### INCIDENTS OF NON-COMPLIANCE IN INFORMATION ON PRODUCTS AND SERVICES AND LABELING

- No incidents of non-compliance have been registered.
- In the course of 2017 no incident of non-compliance with any relevant regulation or standard was observed or recorded. Likewise, there were no objections or abuse regarding marketing and labeling for the reporting period. No legal action was taken or ongoing and no financial or non-financial sanctions were imposed with regard to the regulations and standards governing the labeling of products and their placing on the market.

### INCIDENTS OF NON-COMPLIANCE IN MARKETING COMMUNICATION

- In 2017, no incidents of non-compliance with the legal regulations and codes relating to marketing communication were recorded.
- Petrokemija d.d. advertises its products and services in strict accordance with legal requirements as well as with ethical and cultural standards. Moreover, Petrokemija d.d. adheres to its own ethical code prescribed by the Management Board.
- Petrokemija follows the legal regulations and recommendations of the competent authorities relating to marketing communication, and appropriate information is available to marketing staff in all relevant organizational units.

417-2	Incidents of product non-compliance in labeling and information	In 2017, not a single question or incident of non-compliance with relevant regulations or standards was recorded.
417-3	Incidents of non-compliance in marketing communication	In 2017, no incident of non-compliance with legal requirements or codes of marketing communication was recorded.



# GRI Content index

## (List of all GRI standards included in the Report)

102—1: Organization name	102 – 15: Key impacts, risks and opportunities
102 – 2: Activities, brands, products and services	102 – 16: Values, principles, standards and norms of conduct
102 -3: Location and headquarters	102 -17: Mechanisms for counseling and concern about ethics
102 – 4: Business location	102 – 18: Management structure
102 – 5 : Ownership structure and legal form	102 – 45: Subjects included in consolidated financial reports
102 – 6 : Sales markets	102 – 47: List of material topics
102-7: Organization chart	102-50: Reporting period
102-8: Information on employees and others	102-55: GRI content
102 – 9: Supply chain	201: Economic impact
102-13: Membership in associations	



GRI 302: ENERGY	GRI 306-2: Total weight of waste by type and disposal method
302-1: Energy consumption within organization	GRI 307: ENVIRONMENTAL NON-COMPLIANCE
GRI 303: WATER	GRI 307-1: Non-compliance with legal regulations in environmental protection
GRI 303-1: Total water withdrawal at source	403 : Occupational health and safety
GRI 305: EMISSIONS	407: Freedom of association and collective bargaining
GRI 305-1: Direct emissions of greenhouse gases (scope 1)	413:Local communities
GRI 305-5: Reduction of greenhouse-gas emissions	GRI 417: Product marketing and labeling
GRI 305-7: NOx, Sox and other significant emissions to air	417-1: Requirements in information on products and services and labeling
GRI 306: EFFLUENTS AND WASTE	417-2: Incidents of non-compliance regarding information on products and services and labeling
GRI 306-1: Total water discharge by quality and destination	417-3: Incidents of non-compliance regarding marketing communication

## Conclusion

- The year 2017, for Petrokemija d.d. and Petrokemija Group was a year of transformation and adjustment to building a new business model. Despite numerous financial constraints and challenges, we have not stopped meeting the established criteria of social responsibility in our daily business, which is shown in this Report by numerous indicators.
- Half a century of mineral fertilizer production in Kutina, vividly expressed as fifty million tons of fertilizer loaded on 2.2 million trucks, that if placed one behind another would close a full circle around the earth at the equator, is a remarkable marketing message, but also the obligation of the owner, the Management Board and all employees, not to break this circle, but to further it.
- Our Company's meeting quality standards has been confirmed in the market for decades, and plans for increasing technological, environmental and financial efficiency prompt us to the constant dynamics of business process development based on accountability, respect and mutual communication with the market and all the stakeholders. We hope that this 'second circle', which we have stepped into this year, will bring even greater long-term prosperity to the Company and to the wider community.

*President of the Board:*

*Đuro Popijač, MSc*

*Member of the Board:*

*Davor Žmegač, MSc*

