



# BorsodChem Zrt. **Sustainability Report** 2019-2020







#### **CEO GREETINGS**

"We continue to search for innovative and forward-looking solutions by which we can also satisfy the expectations of our interested parties related to sustainable business processes."

#### MANAGEMENT

- Our strategy and values
- Sustainability aspect
- Our sustainability undertakings and advancement
- Responsible company management

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#### EHS DIRECTOR INTRODUCTION

"Certainly, as a corporate company, we have a key responsibility, which we treat outstandingly not only during our daily activities but also in case of our currently built investments that serve future production."

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### WE CREATE VALUE

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- Indirect economic effects
- Responsible and fair economic operation
- R+D and innovation

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- Energy management
- Water consumption and wastewater treatment
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#### László Kruppa

#### CEO – BorsodChem Zrt.

**"WE CONTINUE THE DEVELOPMENTAL CONCEPT GOING ALONG THE GREEN** CHEMICAL INDUSTRY AND ENVIRONMENTAL **PROTECTION AND WE CREATE A SOLID** BASIS FOR BORSODCHEM'S LONG-TERM AND SUSTAINABLE DEVELOPMENT."

### **CEO GREETINGS**

Sustainability and a more sustainable chemical industry projects on the new Site IV will be landmarks in our and commitment towards social responsibility therein history within the framework of our ten-year investment are crucial pillars of our Company's operation. In 2020 program that is of outstanding scale according to we had to face an unexpected hardship not experienced international standards. In an economic situation struck throughout the seven decades of our Company's by the pandemic, we continued the previously launched existence, i.e. the COVID-19 world pandemic. Besides the developments and new major investments with full effort. ever-increasing environmental and climate crisis, the The project teams, the investment and construction pandemic called for much more significant measures organisations took all due measures to overcome also in terms of responsibility for society and our the obstacles set by the pandemic and ensure the advancement of the projects. Colleagues.

For the above reason, it was our main goal to present our Company's sustainability commitment also from the viewpoint of these challenges in our Sustainability Report of 2019-2020.

We have reached considerable results since the publication of our Sustainability Report of 2017-2018 in our Company's operation. In addition to daily production and operation, we successfully commissioned the MDI<sup>1</sup> dynamic crystallisation unit. The engineering and construction works of the HPM<sup>2</sup> Plant, the nitrobenzeneaniline plant unit, the new power plant and the HYCO4<sup>3</sup>

All this founded a solid base for BorsodChem's value chain and further improvement and optimisation of its operating efficiency. We further strengthened the global procurement cooperation with our parent company, Wanhua and the number of joint procurements showed a significant growth relative to the previous years. We could further mitigate our financial costs and loan-capital ratio.

In addition to the above, we made efforts and measures in numerous areas, which achieved extensive social and public acknowledgement.

Therefore, instead of a large-scale celebration on the occasion of BorsodChem's 70th anniversary, we organised a jubilee tree-planting event with the title of "700 trees from 70-year old BorsodChem", thus we gave evidence of our commitment towards environmental protection. In 2019 BorsodChem won EcoVadis gold medal for its sustainability activity and platinum medal in 2020. By

evaluating our professional results and our operating practice ensuring the well-being of our employees, we received numerous other acknowledgements. We could take over the Factory of The Year 2019 award, the Industrial Innovation Prize in the same year, the beneFit Prize 2019 Audience Award, the Family-friendly Workplace 2019 as well as the Loveable Workplaces awards in 2020, which remarkably increase the attraction for our Company within the range of young talents.

Based on the aforementioned results, we continue the developmental concept going along the green chemical industry and environmental protection and we create a solid basis for BorsodChem's long-term and sustainable development. The largest investment project of our existence being in the implementation stage is subject to obtain this goal and by its implementation, we will further widen the vertical integration of our technologies.

In 2020 our key company management issue was "customer orientation". In the customer satisfaction survey of 2019 our partners highly evaluated our flexibility, customer communication, steady product quality, and logistics activity.

Proceeding from the outcome of the survey, our organisations realised nearly 200 developmental initiations in 2020, which further enhanced our flexibility by introducing product warehousing established in various points in Europe thus raising production stability

<sup>&</sup>lt;sup>1</sup> Methylene-diphenyl-diisocyanate, the most significant product of BorsodChem's isocyanate production besides TDI (toluene-diisocyanate)

<sup>&</sup>lt;sup>2</sup> High-Performance Material – materials with outstanding technical properties

<sup>&</sup>lt;sup>3</sup> Hydrogen-CO Plant to be established on Site IV that produces hydrogen and carbon monoxide by conversing natural gas

by the development of automation and operating maintenance. Even during the pandemic, we ensured smooth product supply for our partners intensifying our reliable supplier discretion thereby. We further stabilized our relationship with our partners in the pandemic situation - in cooperation with Wanhua Group we managed to support them by sending face masks even at that time when there was a shortage in Europe at the outbreak of the virus. The loyalty of our customers toward our Company further improved and based on their feedback they consider us as a reliable supplier.

We introduced several dozens of comprehensive precautionary measures to prevent the spread of the pandemic and save the health of our employees. Not saving on material resources, we purchased equipment for the prevention ensuring a due stock at all times. In cooperation with our occupational health service provider, we established our Company's antigen-based and PCR examination center to save the physical and mental health of our Employees to the largest possible extent. The honest work of our employees helped our Company to continue our activity smoothly, serve our customers and keep our financial profits ensuring a sustainable operation. All this created a solid economic basis for BorsodChem to retain the workplaces even during the most critical period caused by the pandemic and continue to ensure a stable income for its employees.

The COVID-19 pandemic put our Company into a difficult situation, yet it also showed how strong BorsodChem and our community are.

Under the aegis of our social responsibility, we supported local and neighbouring communities as well as social and health institutions by monetary, protective equipment, and disinfectant donations in the fight against the pandemic.

As a responsible company, we also keep the support of initiations in view that serve global sustainability and climate objectives while managing our activities. In the past two years, we have restructured our management systems and management approach accordingly so that we could advance on the growth path by innovation and best available practices in alignment with the environment. Through the various developments of both exisiting and future production technologies, we can drastically reduce the direct and indirect emissions of greenhouse gases. In addition to our various projects targeting the reduction of our carbon footprint, improvement of resource efficiency, and facilitation of nature's regeneration, we are also committed to understanding the entire lifecycle of materials. We wish to achieve this with our professionals participate in the work of international trade organisations, follow up publications and regulations and share the information

in the form of internal training. We also wish to take part in the achievement of the circular economy objectives, thus minimizing the volume of generated wastes by the operation of our integrated production system.

We continue to search for innovative and forward-looking solutions by which we can also satisfy the expectations of our interested parties related to sustainable business processes. We see the key to success in building and maintaining trust-based partnerships and operating in a transparent, responsible and sustainable manner, so this will remain a priority for us in the future. We believe that together with our partners we can do a lot to mitigate the impacts of climate change and thus create a greener and more fruitful future.

I am proud of being a member of BorsodChem's community fully committed to implementing the said objectives.

#### László Kruppa

Chief Executive Officer





#### **Tibor Klement**

#### Director EHS

"WE MUST MAKE A JOINT EFFORT TO REACH THE CLIMATE PROTECTION AND SUSTAINABILITY GOALS, AND EVERY PERSON ON EARTH MUST PARTICIPATE IN IT."

### DIRECTOR EHS INTRODUCTION

By today the concept of Sustainability has become an integral part of our life. It is enough to think of measures in the past period in Hungary such as the prohibition of single use-plastics or the launch of joining the carbonmonoxide reduction program being made popular at petrol stations. Wherever we walk around we tend to find solar panels mounted on house roofs and solar parks established at the boundaries of settlements and the list is not over yet... This all shows that we must make a joint effort to reach the climate protection and sustainability goals, and every person on earth must participate in it. At BorsodChem we also transmit this message to our colleagues that we can all do for the protection of our Earth in effect. Certainly, as a corporate company, we have a key responsibility, which we treat outstandingly not only during our daily activities but also in case of our currently built investments that serve future production. I hope that this report successfully demonstrates these efforts.

#### **Tibor Klement**

Director EHS



# **ACHIEVEMENTS 2019**



CHANGES/EVENTS THAT OCCURRED SINCE THE PUBLICATION OF OUR PREVIOUS REPORT

## **ACHIEVEMENTS 2020**



ALONG WITH KEEPING THE DEADLINE AND THE BUDGET

CHANGES/EVENTS THAT OCCURRED SINCE THE PUBLICATION OF OUR PREVIOUS REPORT



## **REALIZED AND PLANNED DEVELOPMENTS IN 2021**



### **ESTABLISHMENT OF** COVID VACCINATION

POINT ON THE COMPANY SITE

AFTER ENSURING THE ACCESSIBILITY OF VACCINES COUNTRYWIDE, A VACCINATION POINT WAS ESTABLISHED AT OUR COMPANY.

### MONITORING AND ENCOURAGEMENT OF

### **INOCULATION AGAINST** COVID-19

AS PER OUR PLANS WE HAVE ORGANIZED A PRIZE GAME AND BONUS PROGRAM TO REACH THE HIGHEST POSSIBLE RATE OF INOCULATION.

### **CONTINUING INVESTMENTS**

COMPLETION OF CONSTRUCTING MNB-ANILINE, NITRIC ACID PLANTS, NO. 2 BC-POWER PLANT, HYCO-4, AND PREPARATION FOR THE START-UP.





**ISO 28000** 

**CERTIFICATION OF THE** ISO 28000 SYSTEM

POINT ON THE COMPANY SITE

WE WANT TO CERTIFY THE OPERATION OF THE SUPPLY CHAIN SECURITY MANAGEMENT SYSTEM INTRODUCED IN 2020 WITH AN EXTERNAL COMPANY.



### **ESTABLISHMENT OF** SUSTAINABILITY STRATEGY

TOP MANAGEMENT DECISION BASED ON THE PREPARATORY WORK OF INTERNAL WORKGROUP CONCERNING THE COMPANY'S SUSTAINABILITY STRATEGY.



# INTRODUCTION OF BORSODCHEM

BorsodChem Sustainability Report 2019-2020



### EHS director introduction



Recently celebrating the 70th anniversary of its foundation, BorsodChem Zrt., has become one of Europe's leading plastics-raw material producers due to continuous revival and innovations. The chemical company headquartered in Kazincbarcika with a headcount of over 3000 employees started its operation with fertiliser and PVC<sup>4</sup> production. In 1991 the Company reached a decisive milestone, since parallel with the transformation of Borsodi Vegyi Kombinát (BVK) into BorsodChem, MDI production was started on the site in Borsod county. Isocyanate production was later expanded and from 2001 TDI was also added to the product portfolio.

The continuously increasing market demands and the technological developments resulting in the production capacity increase of special polyurethane products<sup>5</sup> enabled BorsodChem to strengthen its role played in the Europen market. In 2011 the Company became a member of Wanhua Industrial Group<sup>6</sup>.

You can find more information on our Company <u>on our</u> website.

BorsodChem Zrt.

(Private limited company)

Owner: Wanhua Chemical Group Co. Ltd

<sup>4</sup> Polyvinil-chloride

<sup>5</sup> More on our products can be **read here.** 

<sup>6</sup> As a result of the restructuring of Wanhua Industrial Group Co. Ltd on January 31, 2019, Wanhua Chemical Group Co. Ltd became the 100% indirect owner of BorsodChem.

Management	We create value	Our environmental performance	Our social responsibility	Supply chain management	Further



Kazincbarcika Site



#### Management

Our environmental performance

Our social responsibility Supply chain management

BorsodChem operates with an integrated production system. In this system, which can be considered as an internal circular economy, the technologies of our plants are connected like a spider web to ensure the circular use of materials and energy by minimizing the generated waste. In the course of our activity, we consider the circular economy principle. We utilise the materials participating or generating in the processes to the largest extent as far as possible for the production of our products. This way we can minimise the raw material use originating from the preliminary source, our losses, logistics costs, energy consumption and the volume of wastes generating during production.

An example of this in the operation of our connected technologies is, among other things, the circulation of chlorine that is one of the crucial elements of our activity. The main raw material of chlorine comes from the rock salt mines into our production processes as industrial salt. PVC production is especially important and special in case of BorsodChem since more than 56% of PVC volume originates from the hydrochloric acid gas that is the by-product of isocyanates production. As a consequence, every chlorine atom incorporating into PVC has also taken part in either the TDI or MDI production process at least once.



PVC Plant BorsodChem



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Our Company is in the middle of a significant investment process which is outlined **in more detail here.** The result will have a considerable effect on us therefore we have to focus on the project in 2021 to put the plants into operation within the specified budget and timescale.

#### **Financial results:**

Financial indicators	2017	2018	2019	2(
Operating profit /Sales revenue (%)	26.4%	26.8%	12.0%	16
Return on assets (%)	26.2%	24.6%	8.5%	ç
Investments (EUR million)	83.1	131.9	166.5	2

Financial profits (EUR thousand) <sup>7</sup>	2017	2018	2019	20
Balance sheet footing	1,699,147	1,912,868	1,987,874	2,351,0
Equity	680,443	1,123,434	1,287,841	1,494,9
Liabilities	1,018,704	789,434	700,033	856,0

<sup>&</sup>lt;sup>7</sup> Our annual Financial and our Sustainability Report covers the same organizational units.



TDI Plant, Borsodchem

# **OPERATING LOCATIONS**

The seat of BorsodChem Zrt. is located in Kazincbarcika and the site is situated on the administrative area of Berente, Kazincbarcika, and a minor part in Múcsony settlements on approximately 450 hectares. All our production activity takes place here. Besides that, we operate a research and development center in Gödöllő, whereas we manage a part of our sales activity from our sales offices abroad and in Budapest.









# **OUR PRODUCTS AND SERVICES**

Our Company has been producing isocyanates for several decades under the brand name of ONGRONAT®, ONGROVIL®, PVC resins as well as chloralkali and special chemical products. To satisfy the continuously increasing customer demands, our product portfolio will soon be expanded by thermoplastic polyurethanes (TPU).

Our products are widely used and variable. We deliver our raw materials to over 30 industrial sectors and by their use, such products are made that we meet in our daily life. These products ensure comfort, safety, durability in our buildings, furniture, cars, clothing, households, and all areas also contributing to energy efficiency, environmental protection and sustainability. In 2020 we exported our products to 68 countries.

On our homepage, you can find more information about our products.

The geographical distribution of our total sales covering all our products related to the past two years, calculated based on sold volume is included in the following chart.



#### Sales area

Distribution of our customers according to type by product groups



Management	We create value	Our environmental performance	Our social responsibility	Supply chain management	Furthe





BorsodChem Sustainability Report 2019-2020

Achievements

# **INFORMATION ON THE REPORT**

This document is the third Sustainability report of BorsodChem Zrt., its main objective is to demonstrate the sustainability results of the past period for our stakeholders in a well-understandable manner in special consideration of economic, environmental, and social impacts. Our report is prepared in Hungarian and English languages and in case of any difference the Hungarian version shall be prevailing.

#### Scope of the report and covered period

This Report introduces the activity of BorsodChem Zrt. owned by Wanhua Chemical Group Ltd. from January 1, 2019, until December 31, 2020, conducted in Hungary in full. The displayed data primarily contain the environmental and social impacts of the Kazincbarcika center, the development center in Gödöllő, and our sales branch office in Budapest. If the displayed data show a different scope, we will indicate separately in case of the given content.

BorsodChem Zrt. prepares a Sustainability report bi-yearly. We issued our latest report about the period of 2017-2018.

#### Report structure

Our report was prepared in alignment with the "Core" application level guidance of the Global Reporting Initiative standard, during which the location of the effect connected to the appropriate topics was also considered. We established the content with the help of the materiality assessment results prescribed by the GRI standard.<sup>8</sup>

#### Data sources

BorsodChem Zrt.'s organisations provided the data seen in the Report that we used after systematisation and professional review.

#### Publication

Our Sustainability report of 2019-2020 – to minimise environmental impact – will be published only electronically in Hungarian and English language. The document is available together with our previous reports on our website.

#### Certification of the Report

Our report was certified by Denkstatt Hungary Kft. Based on the AA1000AS standard by detailed examination of the data of 6 GRI indicator.

#### Management

Our environmental performance

Our social responsibility Supply chain management



Wastewater Treatment Plant, BorsodChem

<sup>&</sup>lt;sup>8</sup> Information on the GRI principles can be obtained here.

Achievements

# MATERIALITY ASSESSMENT AND RELATIONSHIP WITH OUR STAKEHOLDERS

#### Materiality assessment, stakeholders in Sustainability

Prior to preparing this report, we reviewed the need to update the materiality assessment. In the course of it, we did not identify such economical, regulatory, social, or company change that would have substantially influenced our operations, and consequently, we did not prepare a new assessment.

Our key issues serving as the basis of our report were identified on the grounds of the 2016 Materiality Assessment.<sup>9</sup>

Beyond the scope of material topics, in our report, we also deal with the effect of the global COVID-19 pandemic that affects us all. Based on residential feedbacks, we also pay close attention to the noise effect within the material topic of Environmental compliance.

BorsodChem monitors its social, economical, and environmental performance by various methods. These include regular internal reviews, various monitoring systems, audits performed by external parties (EcoVadis evaluation, management system audit, etc.) as well as the visits and feedbacks of our various stakeholders.

The hazards and risks generated by our activity and services or related thereto are identified during the annual risk assessment.<sup>10</sup>



<sup>9</sup> Further information can be obtained **here.** <sup>10</sup> Further information can be obtained **here.** 

### Materiality assessment

Our environmental performance

Our social responsibility Supply chain management

Impact on Company



Kazincbarcika Site

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#### Involvement of stakeholders

As the determinant company in the region, it is of key importance to maintain a close relationship with all stakeholders, since our activities mutually affect one another. As per our discretion, everyone falls into the category of stakeholder for us, on whom any branch of our activity has an impact either directly or indirectly or who can influence the operation of BorsodChem either in full or in part in some way, since our indirect objective often coincides and these objectives can be reached only through joint efforts. Hence we reinforce and maintain our relations at the optimal level utilising a wide range of possibilities.

We maintain the relationship with our stakeholders in various ways<sup>11</sup>:



STAKEHOLDERS

<sup>11</sup> Further information on the issues raised by stakeholders can be found on page 31 of the 2018 report.

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Control room, Borsodchem

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			LOCAL COMML	JNITIES						CU	STOMERS			
	<b>Green newspaper</b> about in-house news affecting the local inhabitants <b>QUARTERLY</b>		Company informatio	JS r	Open day /Forum/Public hearing (In 2020 personal meetings were cancelled, but contact was maintained through phone, e-mail, and public media sites) OCCASIONAL		Customer forums (Online in 2020) OCCASIONAL		2020)	Contact via e-mail REGULAR			Contact by way of a persor visit	
			Company web	site			Custo	Customer satisfaction survey EVERY 2 YEARS				RE	EGULAR	
		EC	OUCATIONAL INS	STITUTIONS						Sl	JPPLIERS			
	Within the fram professional co CONTINU	operations	Through research p CONTINUOU	programs	ong with participation training CONTINUOUS	in dual			Daily bu		s contact, supplier au REGULAR	dits		

### SUCCESSION

Professional orientation presentations – popularising chemical professions in middle – and higher education institutions

OCCASIONAL



### AUTHORITIES

Open day, forum authority requests and inspections, licensing

REGULAR

#### information











BorsodChem Sustainability Report 2019-2020



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Introduction of BorsodChem





Our environmental performance

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Introduction of BorsodChem

About the report

The managing organization of BorsodChem is the Board of Directors that is responsible for making decisions related to the Company's management. Our Company is organised according to functions and this structure serves the effective implementation of our strategic goals.

It can be mentioned as a change that the organisation performing internal site services has risen to directorate level.

#### Managerial levels:

Level n: Chairman of the Board, CEO Level n-1: Vice President, Chief Officer Level n-2: Director Level n-3: Senior Manager/Manager Level n-4: Officer, Deputy Manager, chief foreman, foreman

functional directorates perform financial, The procurement, sales, logistics, investment, and HR tasks with the assistance of further suborganisations.

Chief Operation Officer manages the organisation of Operation. Production and directly supporting processes are under his control such as EHS Management playing a key role in sustainability processes and Energy Management that also have a decisive task in our operations.

The operative management of the Integrated (QMS-EMS-OHSAS-EnMS) Management System operations is ensured by Quality Management.

The Sustainability Group falls under the direct management of the Vice President HR & Communication.

HR Services is in charge of performing all tasks related to workforce supply, administration and training.

Under direct CEO control, Compliance & Internal Audit performs the tasks related to internal audits, ethics, and information security.

A detailed regulatory system defines the Company processes and the tasks of specific organisations therein. We express senior manager commitment in our policies published as part of our management systems.<sup>12</sup>

<sup>12</sup> Further information can be obtained on our **website**.

#### Management

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Kazincbarcika Site

# **OUR STRATEGY AND VALUES**

As a member of the Wanhua Group, it is our goal to further strengthen our role among Europe's leading plastics-raw material and chemical producers along with our company core values. Our Company takes advantage of the market potentials within and outside the European Union through further investments and capacity expansions continuously improving product quality and developing the ability of flexible response to customer needs. To achieve our goals, we arrange for ensuring human resources required for high standard operation and we introduce the most advanced technologies into our production processes with new investments. We continuously work to reduce our impact on the environment. The objective of many of our internal technological developments is a more efficient material – and energy utilisation, the reduction of waste volume, or a solution for its reuse. We also encourage our employees to disclose those possibilities in their direct workplace, which help our Company in its endeavour. As a member of international trade organisations,<sup>13</sup> we monitor new directions and publications related to sustainability.

As a member of the BorsodChem Group, we believe that the ethical commitment of our community is at least as important as our business performance - and we always compare ourselves to the best.

As one of the leading chemical companies in Central Eastern Europe, we are committed to observing the generally accepted ethical norms and regulations of business life in the course of our operation at all times and make our employees observe them. For this reason, we have created our group-level Code of Conduct as uniform guidance for everyone.

During daily work, the company's core value aspect determined by the Company should prevail for BorsodChem employees. These core values define our way of thinking, actions and represent the expected behavioral forms.

On August 30, 2019, Wanhua Chemical Group officially became a signing member of the UN Global Compact (UNGC). As a member of the Wanhua Group, BorsodChem joins the program as a signing party in 2021 since we are also committed to the basic principles of the UN Global Compact. This compact defines basic requirements in the field of human rights, work, the environment and anti-corruption for organisations that join voluntarily. BorsodChem does not only believe, but it also proves in its daily operations that these basic principles are important for the Company.

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#### information

<sup>&</sup>lt;sup>13</sup> Further information can be obtained **here.** 

<sup>&</sup>lt;sup>14</sup> Further information can be obtained on **our website.** 

# SUSTAINABILITY APPROACH

During over seven decades of our Company's operation, the Sustainability approach has always played a key role, since as one of the largest employers in the region we ensure the subsistence of numerous families and we influnece the everyday life of many people.

We assume serious responsibility for the safe operation of technologies, the protection of our environment because we work with the use of hazardous chemicals. Endeavour for maximum safety and an environmentally conscious approach are essential elements of our approach because there are urban areas close to the BorsodChem plant site, which calls for the accelerated safety of our operation.

Over the years, our sustainability approach has substantially improved and become more wideranging. Following the international efforts, we have also become committed followers of the UN Sustainability Development Goals (SDGs).

### SUSTAINABLE DEVELOPMENT GOALS

IN SEPTEMBER 2015, 193 MEMBER STATES OF THE UN IN NEW YORK COMMITTED THEMSELVES TO TERMINATE POVERTY, FIGHTING AGAINST CLIMATE CHANGE AND INJUSTICE.

FOR THE ABOVE REASON, THEY UNANIMOUSLY APPROVED THE HISTORICAL, NEW GLOBAL DEVELOPMENT PROGRAM, WHICH ENVISAGES THE TERMINATION OF POVERTY AND BUILDING UP A SUSTAINABLE FUTURE BY 2030.

THE 17 SUSTAINABLE DEVELOPMENT GOALS (SDGS) CONSTITUTING THE PROGRAM HAVE ERECTED THE NEW UNIVERSAL SCALE OF DEVELOPMENT BY ENSURING THAT NO ONE IS LEFT ALONE.

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<b>IVIU</b>	luy	UIII	UIIL

Our environmental performance

Our social responsibility Supply chain management



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#### Sustainability strategy

BorsodChem's management continuously works to strengthen the sustainability approach in the Company's operat As a part of it, a task force is working at present to elaborate the Company's sustainability strategy to express Company's solid intention to seek to reinforce our market position besides reducing our impact on the environm Meanwhile, as a responsible enterprise, we have a positive influence on the life of our employees and neighbor residents.

The focus areas of our Company's sustainability strategy are also connected to the Sustainable Development Goals:



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	Sustair	nability focus areas		Sustainable Dev	elopment Goals			
tions.				Affordable and cl	ean energy			
s our nent.	Ener	gy efficiency		Industry, innovati	on and infrastructure			
oring				Responsible cons	sumption and product	ion		
		th and aafatu		Good health and	well-being			
Health and safety				Industry, innovation and infrastructure				
R				Industry, innovation and infrastructure				
TION	Envii	ronmental prot	ection	Climate action				
				Protection of land ecosystems				
				Clean water and	sanitation			
BLE FION	Wate	er management	t	Industry, innovation and infrastructure				
				Climate action				
	Sust	ainable procur	ement	Responsible cons	sumption and product	ion		
				Quality education	1			
	<b>F</b> 100 m		iotu	Gender equality				
	EWDI	loyees and soc	IETY	Decent work and	Decent work and economic growth			
				Partnerships to a	chieve the goal			

#### er information

#### Our projects supporting the focus areas:

#### **Energy efficiency**

BorsodChem is the largest industrial electricity consumer in Hungary. The production of electricity required to satisfy our energy demand is accompanied by outstanding environmental impact, which can be reduced through implementing energy efficiency measures. Our energy efficiency projects planned for the long run are as follows, which we will report in our upcoming sustainability reports in detail:

Internal energy efficiency programs

- Waste heat utilisation
- Renewable energy utilisation
- Reduction of carbon footprint

By realising the planned projects, we have also envisaged considerable cost savings in addition to reducing our environmental footprint. Currently, our energy cost constitutes 10-11% of our operation cost

#### Health and safety "Safety first"

We use and produce several health-hazardous and flammable materials in our production processes, which requires accelerated precautions from us. Safety plays a primary role in the selection of our equipment and planning our processes, which guarantees the reliable operation and it also protects our emploee's health as the largest value of our Company.

In the spirit of this philosophy, we intend to further improve plant safety in the future and to continue our programs:

- Improvement of air quality at work
- Improvement of technical safety
- Protection of employee health

#### **Environmental protection**

In case of a chemical industry activity, environmental protection is the other key requirement in addition to safety and our Company is committed to dealing with it consciously. With many decades of history, we are planning well ahead of time, therefore our environment is a markedly important value for us.

After implementing our current projects, we intend to launch further ones in the future on our focus area to increasingly reduce the effect on elements of our environment through our activity:

- Noise protection
- Reduction of environmental emissions
- Eliminating the impact of past activity
- Maintenance of biodiversity
- Waste reduction



Management

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#### Water management

The water supply of the Earth is limited and needs to be managed responsibly. It is also true in the case of our Company, as due to our geographical location we can provide the industrial water from the nearby River Sajó required for its operation.

To the effect of climate change, the increasingly unpredictable rainfall volume may significantly influence the river runoff. We also need to count and consciously deal with this risk.<sup>15</sup>

By implementing the following projects, we wish to continue our commenced actions for the sake of sustainable water management:

- Purification and recycling of technological waters
- Selection of anhydrous/water sparing technologies in case of investment decisions
- Cooperation with our town, Kazincbarcika to analyse the treated municipal wastewater utilisation

#### Sustainable procurement

We use chemicals in large quantities to make our products. In addition to consistent reliable quality and efficiency, we also take sustainability aspects into account when purchasing. These three factors are closely related, as good quality and sustainability affect efficiency. <sup>16</sup>

With procurement, we prefer suppliers as close as possible to reduce the environmental impact of transportation. Where possible, raw materials are delivered to the utilisation site via direct pipelines.

BorsodChem seeks to implement the principles of circular economy within its integrated production system.

With the following projects we wish to achieve that these principles should prevail as much as possible also in the field of procurement:

- reusable materials,
- Purchase of durable and repairable technical equipment,
- decisions,
- sustainability approach.

#### **Employees and the society**

The performance of a company is essentially determined by the performance of its employees. It is of key importance for our Company to build a motivated, committed and highly trained workforce staff.<sup>17</sup> BorsodChem conducts a hazardous chemical industry activity, where it is very important to have a highly trained and skilled workforce for safe operation. We offer outstanding opportunities for our employees for further training and the expansion of their knowledge. We ensure a stable and predictable workplace for our employees. We aspire to raise our employees' satisfaction through numerous fringe benefits.

In this field we wish to contribute to making our Company attractive also for young career starters in the future through our development projects below:

- Building company brand,
- Putting our talent management system on new foundations,
- all possible areas,
- Introduction of primary training for junior engineers,
- Further development of online recruitment methods,
- Expansion of our allowance system.

Our environmental performance

Our social responsibility Supply chain management

• Examining the procurement options related to bio raw materials and

• Enhancing the predominance of sustainability aspects in procurement

· Improvement and encouragement of suppliers in the direction of the

• Continuing the elaboration of career path systems and their introduction in



<sup>&</sup>lt;sup>15</sup> Further information can be obtained **here.** 

<sup>&</sup>lt;sup>16</sup> Further information can be obtained **here.** 

<sup>&</sup>lt;sup>17</sup> Further information can be obtained **here.** 

# OUR SUSTAINABILITY COMMITMENTS AND PROG



Managen	Management We create value		Our environmental performance	Our social responsibility	Supply chain management	Further in	
GRES	S						
		DEVELO	PMENT N	EEDED	FALL-BA	CK	
			End date	Commitment, Prog	jress		
<b>g</b> ial	Our EHS commit		2019 and 2030	<b>Of 2 DOOIS (M4</b> In 2018 the recultivat	and M6) in the fi	<b>Joon area</b> by 203 IST phase by 2019 Ins was successfully realising with maintaining the	<b>)</b> . sed. Recultivatio
6 %. <sup>18</sup>	Recul	tivation	2023 and 2027 and 2034	(cassette No 1 3 by 2034) The HDPE insulating	by 2023, Cassette	<b>ge Area</b> by 2034 B NO 2 by 2027, an the deposit gas discharg orary closing layer of cas	d Cassette

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tarted.

**2021 and** 

2030

 $\downarrow$ 

**2021 and** 

2030

End date Commitment, Progress

#### **Our EHS** commitments



Water consumption

### The amount of **water withdrawn from the Sajó** will be reduced by 3% in 5 years compared to 2015 and by 10% by 2030.

We launched programs for the elaboration and implementation of water recirculation technologies. Although we could reduce the specific water consumption by 9% compared to 2018, the water offtake volume between 2015 and 2020 shows an 8.2% increase because of the rise in the production volume.

Our EHS commitments



Workplace safety

### We will reduce the number of incidents caused by the improper use of **personal protective equipment by 20%** in 5 years and by **40%** by 2030 compared to 2015.

We conducted a communication campaign to reduce accidents. 10, 5, 3, 3 and 2 incidents occurred due to the violation of regulations related to personal protective equipment use in 2016, 2017, 2018, 2019 and 2020, respectively.



Trainings

In 2019 we nearly doubled the number of employees who took part in ethical training partly by holding a repeated ethical training for our employees in a managing position. In 2020 we expanded this training to all employees of the Company. 2560 persons fulfilled the training out of our active employees thereby, by which we achieved over 80% participation. Our goal in the future is to achieve a nearly 100% participation ratio.

CEO	greeting	S
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#### End date Commitment, Progress



Manag	ement
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Our environmental performance

Our social responsibility Supply chain management

#### End date Commitment, Progress



When using process control systems for plants, it is necessary to have appropriate IT literacy. By the end of 2018, the **knowledge assessment of the plant managers** will be completed, and all the plant managers who do not possess the necessary level of skills will be invited to **IT training** courses.

In 2019 we continued the development of foremen's IT user knowledge. In 2020 Excel training videos were uploaded to the SuccessFactors system at 3 difficulty levels that are available for any of our employees.

Developing employees

managers

Developing

Developing the system operator training course

2017

 $\checkmark$ 

The basic training of new entry-level system operators will be increased from the current 40 hours to a minimum of **200 hours** within one year, and the theoretical training will be supplemented by practical training, using demonstration and simulation tools.

In addition to the presence training of new system operators' primary training, we have been organising the training in a digital form since 2020. Utilising the advantages of SAP SuccessFactors' training module, the new colleagues can deepen their chemical and engineering knowledge interactively from training materials enriched with practical examples according to their own schedule.







CEO	greeti	ngs
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#### End date Commitment, Progress

### Developing employees 2019 $\rightarrow$ Expanding the mentor program Social responsibility Continuous Organizing volunteer groups

### In 2016, 60% of new hire workers were given mentoring. This ratio will be increased by 50% within 3 years by **extending** the mentoring process to all new employees.

In 2019 we expanded the scope of positions where mentoring is recommended, therefore 69% of new employees received mentoring in that year. In 2020 a mentor was designated to 90% of new employees to support the apprenticeship period.

### We organize activities for the well being of local communities without expecting any benefits from them. Organizing volunteer groups strengthen the team spirit, solidarity and trust. "Let's do something good and feel better by helping someone."

In 2019 we organised a "Together for a clean environment!" waste collection action, Blood donation record-breaking attempt and 700 trees from 70-year-old BorsodChem jubilee tree planting.

In 2019 we continued our Christmas donation collection organised within the range of our employees and we also gave gifts to little patients of the Child Health Center of the County Hospital besides supporting two of our traditional partner institutions, which care for those in need.

In 2020 during our organised Challenge Month our Company replaced the minutes collected by doing exercises with cash and offered a donation in the value of HUF 1,520,000 for the modernisation of the Ambulance Station of Kazincbarcika.

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Our social responsibility

Commitment, Progress

Supply chain management



### Setting organizational **30-day challenges** that are related to some kind of exercise or a healthy lifestyle with the purpose of continuous promoting regular movement, the culture and lifestyle of health.

In 2018 we introduced a complex health- and exercise program to establish the health culture, which enhances consciousness in this field. A part of is the "challenge" and "trial" series encouraging the exercise of our colleagues, which ensures a regular possibility for our organisational units to "compare their powers".

### By 2020, in addition to compulsory health inspection, we will organize **employee screening programs** in the framework of health promotion projects (e.g.: screening stations, etc.)

Since July 2019 we established the "Mini hospital" operating on our site, where our colleagues can attend voluntary screening examinations, medical examinations and treatments. Within this framework, 15 kinds of medical examinations became available and we procured advanced medical equipment in a high value to ensure the high standard of these examinations. In addition to the above, our private healthcare service provider ensures screening programs every quarter. We look forward to seeing our colleagues with our own organised programs and screening examinations also within the frames of Health Month.









# **RESPONSIBLE COMPANY MANAGEMENT**

The responsible, successful and sustainable operation of BorsodChem is based on the properly established integrated company management system that includes quality management, health protection, safety- and energy management as well as environmental management subsystems. The Integrated Management System of our Company complies with the ethical and legal regulations, which facilitates the disclosure of further developmental possibilities and also the establishment of objective setting and monitoring systems that support our developments.

The Quality Management System (QMS) in line with the ISO 9001 standard operating for over 25 years ensures the attainment of product quality objectives, whereas the ISO 14001 based Environmental Management System (EMS) ensures the attainment of environmental objectives. Towards maintaining our employees' health - that we consider as one of our most significant values - we operate the Occupational Health & Safety Assessment Series (OHSAS) certified by the ISO 45001 standard. The ISO 50001 Energy Management System (EnMS) instigating efficient energy utilisation is an element of our Integrated Management System introduced in 2016. In 2020 introduction of the Supply Chain Safety Management System began based on the ISO 28000 standard to serve our customers most reliably. We intend to have this system of ours certified by an external party in 2021.

In addition to that our operation according to the ISO 9001 standard is the basis of our other standard management systems, we ensure our customers' satisfaction by our carefully planned processes. We receive regular feedback about it via the customer satisfaction survey accomplished every 2 years that took place recently in 2019. The range of those asked covers 80% of the sold volume. The evaluators gave us a higher score in each group of issues relative to the previous survey.

#### **Overall customer satisfaction**



Our QMS-EMS-OHSAS-EnMS systems are certified by an external party. In the period of 2019-2020, the auditors did not register any failure during the annual reviews and they only made observations and development recommendations. 21 and 49 pcs of observations were made in 2019 and 2020, respectively. In 2020 we switched from OHSAS 18001 to the new ISO 45001 standard and that is why the number of observations rose.

Our Company values all pieces of advice that serve the development of our system and thus we analysed all observations, elaborated an action program for it, monitored the advancement of the programs quarterly and informed the top management concerning the status of implementation.

The implementation of goals set out for the 3 years (2019-2021) serves the continuous development of our operation. The EHS and EnMS objectives



are closely related to the Company's sustainability endeavours. We specify programs annually to reach the goals and the management regularly reviews their progress.

The joint focus point of our management systems is risk assessment. In the past 2 years, we have made considerable advancement in harmonising the risk assessments executed in terms of operating the management systems. We can analyse the disclosed risks on a joint platform and this way the management can make its decision on the grounds of an overall picture either in the interest of mitigating or managing the risks. In 2020 we introduced the application of a new software to register the risks. Easier accessibility and transparency help organisations to take consistent actions.



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Lajos Szabó **Director Central Maintenance** 

THE ORGANISATION OF THE ANNUAL SHUTDOWN IS DETERMINANT AT **BORSODCHEM. WHAT MADE THE SHUTDOWN** OF 2020 TO BE ONE OF THE MOST **SUCCESSFUL ONES?** 

At our Company, the general overhaul period is the most critical period during the year. The shutdown and restart of plants operated by integrated technology is a coordinated process. The annual shutdown works must be executed at the same time in all our facilities.

As part of the preparation, the construction stage is circumstance. preceded by long planning and preparatory stages, so Along with the maximum utilisation of our internal basically, the preparation and the annual shutdown teams, the required jobs in the plants were completed itself can be regarded as a full-year project task. by deadline within the budgeted cost limit in a way that no key EHS incident or severe injury occurred.

The annual shutdown of 2020, in which we planned the participation of thousands of (of BorsodChem Probably the best proof related to the quality of work and external) employees, put the participants to performance is that it is one of the smoothest periods new challenges compared to the past years. These of BorsodChem – high production level – since the challenges principally came from the fact that the carefully prepared plans had to be modified due to annual shutdown. the COVID-19 pandemic.

Because of the uncertain market situation, we started the maintenance works earlier in the plant sections that were shut down in spring. Our internal maintenance workers and the professionals of our service organisations performed the job together with the plant workers involving the fewest external contractors possible.

#### Management

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Due to the schedule changed owing to the pandemic and the travel restrictions the majority of external contractors were not available. It occurred that BorsodChem employees performed works without the onsite presence of foreign chief mechanics such as on compressors.

During these works, our colleagues repeatedly proved their professionalism, successful and efficient work.

In addition to the availability of specialists, another problem was to reschedule the reception date of specific spare parts and equipment that had been ordered earlier. The specialists of Procurement & Logistics were also challenged by this modified

To sum up it can be stated that the year 2020 brought and meant new challenges in several areas for those who participated in the annual shutdown. We can already see in the preparatory stage of the annual shutdown of 2021 that our next year will not be easier either, but we are optimistic about new challenges.





# WE CREATE VALUE

BorsodChem Sustainability Report 2019-2020




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# **OUR ECONOMIC PERFORMANCE**

In the past two years, we worked to create value for our Owners, employees and society. In the first quarter of 2020 the COVID-19 world pandemic started to spread and strongly affected the Company. In the second quarter efficiency dropped due to the strong reduction in demand. However, in the secold half business upswing restarted faster than expected and on the whole, BorsodChem was able to close an outstandingly successful year. We managed to further increase the Company's cost-effectiveness, which was a key factor in terms of effectively handling the decline generated by the crisis and also reaching further successes.

In 2020 the Company's profit after tax was EUR 209.3 million that is the Company's third-highest net profit in the Company's history and additionally we could further improve our capital-credit ratio. The profit after tax of 2020 exceeded the profit of 2019 with EUR 41.4 million, i.e. by 24.7% thanks to the higher sales volumes and lower raw material prices. Bisnode, an independent international certifying company continues to rate us into category AAA based on financial stability and reliability, which we also wish to maintain in the long run.

We were also successful in continuing our investments: we executed plant developments, capacity expansions, built new plants and obtained new customers. A considerable aspect is still product and technology development in consideration of their impact on the environment. However, relative to the previous years, the sales prices saw a setback in 2019 we are over a highly fruitful period by increasing the sales volume and the efficiency, which we wish to upkeep also in the long run by enhancing the vertical integration.

### **Profit after tax (EUR million)**





Kazincbarcika site, BorsodChem

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We managed to realise many capacity expansion investments among other things due to our results. The MDI production capacity grew by 10% up to 330,000 tons/year. With the start of our new membrane cell chlorine plant coming on stream, chlorine production escalated by 17% up to 384,000 tons, whereas the producible volume of caustic soda is 11% higher relative to the previous 362,000 tons capacity.

Our Thermoplastic Polyurethane Plant implemented using the new technology commenced its production, by which we can offer a more diversified product portfolio for our customers along with further increasing our competitiveness. Investments that further improve capacity expansion and supply safety are currently ongoing and they help us to satisfy our customers' needs more easily in the long run.

In 2020 BorsodChem purchased 100% share in Swedish Chematur Technologies A.B. company that deals with chemical engineering. Our offices established abroad and our sales subsidiaries assist our foreign sales competitiveness in the following countries: Turkey, Croatia, Italy, Brazil, Russia, and China.

Continuity of the supply chain as well as the safe and proper quality storage we expand our storage capacity both at home and Europe. This endeavour of ours is also included among our Goals for Supply Chain Safety facilitating our competitiveness and ability to respond.

Revenues and costs (EUR million) **Revenues Net revenues Other revenues** Costs **Operating cost** EUR mi **Applied wages** and allowances **HUF bil** Payments to state cash office **Community investments** 

**Profit after tax** 

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		-			

	2017	2018	2019	2020
	1,712.26	1,774.61	1,427.31	1,412.62
	1,683.40	1,757.93	1,411.80	1,407.91
	28.86	16.68	15.51	4.71
	1,303.27	1,330.75	1,259.45	1,203.32
	1,182.47	1,206.04	1,163.24	1,102.36
nillion	77.73	84.20	83.63	84.55
illion	24,034	26,848	27,209	29,690
ce	42.97	40.37	12.41	16.27
	0.10	0.14	0.17	0.14
	408.99	443.86	167.86	209.30

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### **INDIRECT ECONOMIC EFFECTS**



Kolorcity Kazincbarcika Running Race, 2019



BorsodChem Mini Hospital

As a considerable employer and taxpayer in the region, BorsodChem has an overriding indirect effect on the neighbouring settlements and the national economy.

We are proud of having employed over 3,000 employees in 2020 since we create new workplaces due to our developments and plant expansions. The continued increase in the number of our employees has a positive impact on the local society since we ensure living sources for newer families and we also indirectly support local enterprises through the generation of market demand. Besides this, we create further possibilities for our suppliers and service partners.

The extent of tax paid directly into the national economy is also determinant and so is our export activity that improves the foreign trade balance.

Along with these geared economic impacts, it is worth highlighting the regular sponsoring activity of BorsodChem in the course of which we directly support local sports events, occasions and communities.

We provided a substantial amount of support to various local institutions, the hospital and local governments after the breakout of the coronavirus pandemic in the form of disinfectants and protective equipment. We could keep – affecting local social organisations and institutions – the rate of direct subvention even despite the pandemic situation at the level of 2018. Beyond that point, our Company actively supports secondary and higher specialised education, with which we contribute to ensuring the proper number of workforce with the proper qualifications in the region, in the long run, the economic development and social catch-up of the region.

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New workers of BorsodChem



BorsodChem Team, Kolorcity Kazincbarcika Running Race

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# **RESPONSIBLE AND FAIR ECONOMIC OPERATION**





As one of the leading chemical companies in Central Eastern Europe, we are fully committed to observing the competition law as well as the generally accepted ethical norms and regulations of business life. We provide separate ethical training to our employees at which all new employees must participate. At least 80% of our active employees fulfilled the training and our goal is to reach 100% as soon as possible. We encourage our colleagues to take the opportunity of our Whistleblowing Line if they experience any level of competition law risk affecting our Company. In the past two years, five announcements have been made each year. We investigate these announcements according to the regulation of the Whistleblowing Line.



Similarly to the previous period, our Company has not been affected by any legal proceedings related to competition law, monopoly or cartel in the past two years either. It is our basic objective to maintain the condition of fair competition and the commitment to it with our company culture, proper internal regulation and regular training and also show an example to be followed by our stakeholders also in the areas that fall outside our direct control.

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# **R&D, INNOVATION**

### Our investments

The primary lien of our competitiveness is innovation, therefore we pay close attention to investments, product and technology developments. The period of 2019-20 is eminent in the history of BorsodChem, since continuing the trend of the past decade we implement significant investments, which are shortly introduced.

### Investments (EUR million)



### Industrial raw material from technological waste

During the production of our isocyanate products, waste water with sodium chloride content is generated. Instead of directing the contaminated water into the wastewater treatment unit, our colleagues identified the possibility of reverting a part of the waste stream into raw material, thus we recycle it into our integrated production processes instead of termination. We developed a completely new technology for wastewater treatment with the help of which we make concentrated brine from it for the electrolysis plant. Another advantage of the procedure is that we obtain the solution used as an oxidizing agent also from the wastewater stream of another plant. We built a new plant section to execute the process. As a result of splendid teamwork, the plant was commissioned in May 2020, thus also contributing to the development of circulation within the Company thereby.



Wastewater Treatment Plant, BorsodChem

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In 2015 our Company defined a product portfolio and capacity expansion, as well as an efficiency improvement plan based on 6 pillars in a value of several hundred million euros, and the majority of it was completed before 2019.

We increased the **PVC Plant storage capacity** by erecting 4 new storage silos that we could take over in 2020. With this step, production flexibility grew and we can serve customer demands with the appropriate PVC resin type within a shorter time.

A key developmental area falling on our reporting period was the MDI Plant development, whose important project, i.e. installation of the MDI crystallisation equipment was completed in 2020.

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Parallel with the construction of the membrane cell Chlorine Plant we shut down the electrolysis plant operating with mercury cathode procedure in 2018. From 2019 to 2020 the cells were dismantled, the cell room and external technological units were demolished, cleaned by high pressure and the wastes were pre-treated. We are planning to finish demolishing the cell room building by the end of 2021. Our new TPU (Thermoplastic Polyurethane) plant was built on Site IV and started its trial operation in 2020.



# **OUR INVESTMENTS**

Due to capacity restrictions of the Kazincbarcika site, we established our so-called Site IV that was implemented by the land reconstruction and infrastructural development of the area left behind by the coal industry. The Hungarian Government declared the development of **Site IV** as a key brownfield investment from a national economy point of view, which shows the significance of the area's land reconstruction.

Our further key investments in progress will also be located on the new site such as the MNB (mononitrobenzene)-Aniline plant, the HYCO4 (hydrogen and carbon monoxide), and the ASU (air separator unit) plant built within the frame of the high volume Aniline Project. You can gain information on the environmental advantages of the investment here.



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Another ongoing investment of ours is the production capacity increase of our weak nitric acid plant that was launched in 2020 and it is expected to come to an end during 2021, which we can achieve by commissioning a new 58 m tall absorption column. As part of the aniline production chain, our new weak nitric acid plant will produce feedstock for the production of mono-nitrobenzene, i.e. the most important component of aniline. The selected technology is the further developed version of the procedure applied in our present production plant. The procedure surpasses the original technology thereby also satisfying the BAT<sup>19</sup> requirements in consideration of energy consumption, optimised steam production, and the possibly lowest environmental load. With the BAT technology to eliminate dinitrogen-oxide emission having a significantly detrimental greenhouse effect, the saving per year is expressed in CO<sub>2</sub> equivalent is highly significant.



<sup>19</sup> Best Available Techniques
<sup>20</sup> Materials with outstanding technical properties

### Our major investments

Investment	Brief description of the project	Year of implemen- tation
Establishment of new membrane cell Electrolysis Plant	The new electrolysis plant was made with one of the most advanced and most appropriate technology from an environmental point of view. The extent of investment exceeded Euro 100 million.	2018
Establishment of MDI and TDI crystallisation sections	Sections established for diversification of the product portfolio	2019
Plate lining of decontamination trays	Investment implemented to minimise the environmental load	2019
Establishment of "High- Performance Material" <sup>20</sup> Plant	Project affected to produce a new product (TPU)	2020
Installation of new nitric acid section	Capacity expansion project	2021
Construction of the mono-nitro-benzene plant	Investment to improve supply chain safety and competitiveness, but its positive environmental effects are also substantial.	2021
Aniline Plant	An investment that improves supply chain safety and competitiveness that also entails a positive environmental effect.	2021
"SITE IV" Project	Implementation of internal infrastructure developments connected to the new plants: railway, road network, service buildings, gate service, changing rooms, fire-fighting barrack, maintenance building.	2021
ODCB decontamination of wastewater and hydrochloric acid gases	Easier manageable wastewater, more advantageous in terms of environmental protection.	2021

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Installation of the absorption column

### **Product development**

As a result of our product development center's work performed in Gödöllő in the field of rigid-and soft foams, our product portfolio is enriched, which helps to serve our customers' demands on a larger scale in addition to improving our competitiveness. Our team specialised in rigid foams primarily deals with the development of polyurethane (PUR) and polyisocyanurate (PIR) systems with increased fire resistance. Out of soft foams, we develop specific products for the automotive and furniture industries. Our colleagues in Gödöllő are currently working actively on the various product development projects handling the sustainability aspects as a priority.

### A few of our product development programs:

### **Product development/** research



Small density comf foam.



Isocyanate development for NVH<sup>21</sup> application.



Polyurethane system development (PIR insulating foam for



laminated panels). Development of isocyanate for wheels made of polyurethane

(rollers).



Development of isocyanate product to help the production of wind farm blades



New shoe sole raw material



New rubber adhesive raw material.



Jodollo Development Center

Our environmental performance

Our social responsibility Supply chain management

### Sustainability aspect

	By smaller density, a proper quality
fort	product can be made from less
	raw material, which means a lower
	environmental load.
	NVH foams are installed in electric

cars in a large volume. Our products indirectly contribute to "green" traffic.

Its heat insulation property is very good, long-life (more durable than its PUR predecessors).

More durable products – lower environmental load.

Facilitation of utilising renewable energy resources.

> Longer lifecycle than in the case of EVA shoes.

Enables recycling of waste.

### **Technological development**

Continuous development and innovation are indispensable for a chemical corporate company. We are solicitous to apply the best available technologies at all points of the production chain and see through such technological developments that contribute to stepping up material- and energy efficiency, minimising water consumption and waste emission as well as complying with safety and environmental requirements at a high standard. Our technological developments and their quantifiable results are excellent examples of the innovative cooperation of our Parent Company and our Company. In case of various technological challenges, we unify our knowledge and experiences to handle challenges of the present and further support innovation in cooperation with Wanhua's engineers and specialists.





<sup>&</sup>lt;sup>21</sup> NVH (Noise, vibration and harshness)

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Andrea Mihalkó

R&D Chief Engineer

### IN 2020 A SUSTAINABILITY PROJECT WAS IMPLEMENTED AND YOU WERE ITS SUGGESTER. WOULD YOU PLEASE INTRODUCE THIS PROJECT?

It also saves money that the dissolved sodium chloride The process of catalytic oxidation was realized based content of the brine generated in one of the plants on the idea. Its core idea is that by feeding through can also be used as a base material in another plant. the mixture of brine and hypo containing organic During the procedure the hypo solution not suitable matter on a properly selected catalyst, the organic for commercial intercourse is used in this procedure, matter content will considerably drop. Thus this brine as a result, its management as waste must not be paid becomes suitable for feedstock of the electrolysis for and it has no environmental load either. plant after evaporation and crystallization. A further advantage of the procedure is that in the course of This purification procedure is also suitable for treating the oxidation the oxidizing agent can be fully used brines with further active chlorine. and the hypo used as an oxidizing agent can even be a product of commercial quality.

### WHAT MOTIVATED THE DEVELOPMENT?

Corrosive processes occurred in one of the plants and to solve this issue the parent company offered the said catalyst to remove the material causing the corrosion. In the plant, that problem was finally resolved differently, but we thought if the catalyst was suitable for dissolving the hypo then it can also be suitable for us to execute a firmer oxidation reaction thereon.

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### WHAT RESULTS DOES THE INVESTMENT HAVE?

The result is mainly environmental because the brine with high organic matter content is not emitted and fails to load our environment.





### Our latest developments

- by transportation.
- part of our electricity utilisation.
- Innovation Prize, about which you can read more here.



Wastewater Treatment Plant, BorsodChem



Industrial Innovation Prize

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• Due to our HCl Conversion Plant started in 2018 and further developed in 2021, we can reduce the wastewater volume to be treated, increase our raw material independence and decrease our environmental footprint caused

• In 2020 the Deionized water section was expanded and the Wastewater Treatment section was optimised, which ensures the operating conditions of our growth strategy. We are planning to install another combined heat and power plant for the onsite steam supply, with which we can cover a

• The investment targeted at the innovative development of MDI production was implemented in 2019, during which we developed individual technological and engineering solutions. Besides increasing the production capacity, the MDI Plant could implement a more efficient and flexible technology by optimising the parameters of main and side reactions. As a result of the recommended modifications, more accelerated elimination of contaminations became available during production, creating a technology of higher efficiency. The Hungarian Association for Innovation acknowledged this activity with the Industrial



Industrial Innovation Award Ceremony



MDI Plant, BorsodChem

### University relations

BorsodChem lays a great emphasis on cooperation not only in the field of education but also in scientific activities. We worked jointly with various universities and research institutions throughout the years. By close cooperation, the researchers have a wider general overview of the relevant challenges of the industry, whereas BorsodChem development engineers can apply the new knowledge arising from scientific researches when solving a complex plant task.



### University of Miskolc

The good relationship between the University of Miskolc and BorsodChem has been existing for a long time both at an educational and scientific level. A good example for supporting education and scientific activities is that the Chemical Technology Department of BorsodChem operates in the Chemical Institute. The University of Miskolc and the Company jointly won several R+D governmental subventions, where we solved chemical industry technology problems through developing new and innovative solutions. There is also cooperation with the university along with tenders. For instance, we have joint works also in the field of elaborating and applying analytical methods, computer modelling, biological and toxicological examinations, material structure testing and sustainability examinations. Publications, patents, sample protections for users and professional presentations arise from the developments.



### **University of Debrecen**

We also cooperated with the University of Debrecen in the successful implementation of our research and development tenders. Their areas of inspection include polymer chemistry and polyurethanes, in which their researches are very valuable for us. Furthermore, we worked together successfully in the elaboration and execution of special analytical measurements and also in the field of biological tests.



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### **Budapest University of Technology and Economics**

We primarily worked together with the Budapest University of Technology and Economics on the issues of operational studies.



### PANNON EGYETEM UNIVERSITY OF PANNONIA

### **University of Pannonia**

The University of Pannonia also plays a key role in the Hungarian chemical engineer training, therefore we certainly involved the specialists teaching and researching here in our developments. We worked out a mathematical model in cooperation for calculating the partial steps of producing MDI and PVC, our two core products.





### **Establishment of Higher Education and Industrial Cooperation Center for Advanced Materials and Intelligent** Technologies (FIEK) at the University of Miskolc

Meeting customer expectations at a high level is essential for our Company in the field of product quality and customer service activity. Among our research and development goals, there is the development of at least six new PU systems and products from the laboratory research stage to pilot production. These objectives of ours are assisted by the joint work with Robert Bosch Energy and Body Systems Vehicle Electricity Spare Parts Production and Distribution Ltd., S.E.G.A. Hungary Ltd. and ÉMI Building Quality Control Innovation Non-profit Ltd. in a common tender managed by the University of Miskolc. In the course of the cooperation, we install and commission such new technologies, which are currently not available at the domestic market, thus improving the R+D possibilities of both the higher education and members of the consortium.

### **GREEN HYDROGEN**

In a base case, at present we utilise the hydrogen generating in our Electrolysis Plant as the feedstock of ammonia production. Connected to the EURO CHLOR project, we wish to emphasize its significance.

The hydrogen demand of our technological processes exceeds the hydrogen volume generating in the course of electrolysis multiple times. Now we produce it by natural gas conversion. By studying the available technologies today, in the future, we wish to produce this hydrogen by leaving a minor carbon footprint.

### Trade association memberships

As a member of numerous trade associations, BorsodChem undertakes an initiating role in sustainability, climate policy and environmental projects. In the past two years, we have been highly committed to our activity supporting the program of organisations, out of which we would like to point out our results below.

### MAVESZ

As one of the founders of the Hungarian Chemical Industry Association and having been an active member for almost three decades, we contribute to strengthening the competitiveness of our industrial sector and its position acknowledged at the uniform market of the European Union by elaborating many solutions which support the sustainability objectives. Based on the request from the Ministry of Innovation and Technology, as a member of the association, BorsodChem also participated in the elaboration of the chemical strategy proposal in Hungary.

### **ISOPA**

ISOPA is the European sales association of diisocyanates and polyols – the main components of polyurethanes – producers, which among other things facilitates the enforcement of best practices at the highest standard in the distribution and utilisation of diisocyanates and polyols within Europe.

As a member of ISOPA, we keep in contact with other industry associations to comply with the present and future demands of society in the field of energy efficiency, safety and sustainability.

### MKE

The objective of the Hungarian Chemical Society is the organisation of those who are interested in chemistry and the chemical industry based on voluntary and individual activity, the exchange of professional information on a wide

Our environmental performance

Our social responsibility Supply chain management

scale, evaluation and publication; creating the forum of professional public life; raising the knowledge level of domestic chemists, chemical engineers, chemistry teachers and other professionals who actively take part in the work of the; having the professional work of domestic chemists both at home and abroad acknowledged as well as facilitating the development of the chemical industry.

As a legal member of MKE, BorsodChem also actively supports the reach of goals.





### All our trade association memberships

#### International

- III (International Isocyanate Institute)
- Mono & Dinitration Safety Conference (MDSC)
- ISOPA (European Diisocyanate and Polyol Producers Association)
- PU Europe
- Euro-Moulders
- European Panel Federation
- Euro Chlor
- Oxy Vinyls
- EPCA (The European Petrochemical Association)
- SNPU (Syndicat National des Polyuréthanes)
- NVPU (Nederlandse Vereniging van Polyurethaan hardschuimfabrikanten)
- IVPU (Industrieverband Polyurethan-Hartschaum e. V.)
- IMA (Insulation Manufacturers Association Ltd)
- FEICA (Association of the European Adhesive and Sealant Industry)
- Europur (European association of flexible polyurethane foam blocks manufacturers)
- SIPUR (Polish Association of PUR and PIR Insulation Producers and Processors)

#### Hungarian

- Hungarian Chemical Industry Association (MAVESZ)
- Hungarian Chemical Society (MKE)
- Hungarian Association for Innovation (MISZ)
- Hungarian Hydrological Association Borsod region (MHT)
- Association of On-site Fire Brigades Fire Brigades (LTSZ)
- Hungarian Internal Auditors Association
- Chamber of Commerce & Industry BAZ County (BOKIK)
- Federal of the North Hungarian Industrialists
- Hungarian Credit Management Association
- Hungarian Private Wagons Association



Our social responsibility Supply chain management

Confederation of Hungarian Employers & Industrialists (MGYOSZ)

### **EUROPEAN GREEN DEAL**

ISOPA and the International Isocyanate Institute also deal with the European Green Deal. The main goal of the project, also joined by BorsodChem, is to implement a greener chemical industry, i.e. to use less hazardous substances, analyse the effects of the applied chemical compounds more deeply and continuously develop the technologies.

BorsodChem is installing fittings in its currently built plant, which fully exclude the escape of hazardous substances into the air of the workplace.



# OUR ENVIRONMENTAL PERFORMANCE

BorsodChem Sustainability Report 2019-2020



Introduction of BorsodChem

# **OBSERVANCE OF ENVIRONMENTAL REGULATIONS**

The basic principle of living in harmony with the environment enjoys priority in case of the decision-making processes within BorsodChem since as we have an influence on the environment, the environment also has an influence on our processes, employees and stakeholders. For the above reason, during all developments, innovations and general operations, BorsodChem also operates according to the principle of prevention. Accordingly, it is our primary objective to be able to identify our adverse impacts related to the environment even before their appearance and avoid the majority of it as far as possible by establishing the appropriate operating methods taking the best available technology into account. All our operating units operate in alignment with the legal requirements and they have a uan IPPC permit accordingly. We undertake compliance that goes beyond legal regulations throughout international trade association memberships. Our environmental protection colleagues with outstanding professional knowledge and experience are the security of our environmental performance. At the highest level Director EHS represents the above area of issue. The regularly audited Environmental Management (ISO 14001) and Energy Management (ISO 50001) Systems also form a part of our Integrated Management System. From 2019 to 2020, non-conformity did not emerge within BorsodChem in terms of environmental laws.

On the following pages, you can read about our environmental effects<sup>22</sup> and performance in detail.

### KPI (KEY PERFORMANCE INDICATOR) SYSTEM IN THE PROCESSES OF BORSODCHEM

According to the credo of BorsodChem, the secret of business success is to focus on quality and performance. The performance management and incentive scheme of our Company is a comprehensive and futureoriented system, whose primary goal is that the organisational culture of BorsodChem should become performance-oriented and that this approach should gain strength at all employee levels. The assessment of activities related to environmental protection constitutes a key part of the incentive scheme, such as waste management, energy and water consumption. Within our KPI system, there are separate company goals, organisational unit goals and individual key tasks that guarantee for all employees to participate in the implementation of goals. Quarterly the organisational units report on their results toward the senior managers, thus also with the help of our employees, we consistently improve our environmental performance.



Our environmental performance

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<sup>&</sup>lt;sup>22</sup> In case of introducing our environmental effects, we forbear from demonstrating the emission of our Budapest office having a negligible effect compared to other BorsodChem sites.

# ENERGY MANAGEMENT<sup>23</sup>

It is of major importance to improve energy efficiency within our Company. On the one hand, as a chemical industry company operating energy-intensive processes, all our energy efficiency improving investments contribute to enhancing our competitiveness, on the other hand with all such measures we reduce our carbon footprint, thus supporting the climate-neutrality objectives of Europe and Hungary.

Towards the consistent and continuous implementation of the above goal, we are trying to increasingly exploit the possibilities among our operating units

given by the horizontal integration. As demonstrated before, BorsodChem makes every effort to utilise the raw materials to the highest possible extent and redirect the generating waste streams back into circulation. This approach also appears in our energy management considerations. Within our Kazincbarcika site, our operating units connected as a network can share the unused electricity or the steam recovered from the exothermic processes during the technology many times. For example, BC-KC Formalin

### Consumed energy /Manufactured product (t)



### Total energy consumption (MWh)/Product (t)

			2017	2018	2019	
	<b>S</b>	Electricity (MWh)	1,354,885	1,295,636	1,336,977	1,34
		Natural gas (MWh)	333,858	380,738	392,756	37
	\$\$\$	Steam (MWh)	1,710,758	1,670,114	1,822,487	1,820
		From fuel <sup>24</sup> (MWh)	9,787	9,960	10,145	
		From biogas (MWh)	4,052	3,990	3,583	
_		Manufactured product (t)	1,013,813	1,018,633	1,094,533	1,09

<sup>23</sup> Energy generating plants (BC Therm, BC Power Plant) were also taken into account in the detection of all energy used.

Management	We create value	Our environmental performance	Our social responsibility	Supply chain management	Further ir

Kft. operating on our site produces steam from the exothermic reaction heat of formalin production that can be forwarded to various production units of BorsodChem via pipeline and it can be used there. We continuously increase the utilisation of waste heat generated in our plants and we reduce the losses emerging at the operating units thereby and improve the efficiency. It enables us to further reduce the energy cost ratio that constitutes 10-11% of our current total operating cost.

### information





,093,492

<sup>&</sup>lt;sup>24</sup> Fuel used by vehicles operated by BorsodChem

EHS director introduction

Achievements

Our energy consumption related to the total of key manufactured products<sup>25</sup> shows a downward, i.e. an improving tendency, which means that we produce a unit of product with lower energy consumption. When calculating our energy consumption, we considered the total electricity, natural gas and steam energy used apart from their technological or building energetics utilisation.

In 2020, despite our energy efficiency endeavours, only a minor improvement was seen in our energy intensity indicator. It is due to the decrease in demand in first half experienced as an impact of the coronavirus and to this effect load was reduced in some of our plants to a capacity utilisation level different from the optimal level, i.e. adjusted to a lower performance operation. It meant less optimal operating conditions with a view to energy intensity, therefore any oncoming expected improvement failed to occur in 2020 and we also reached results in 2020 that correspond to the energy intensity level of 2019.

In 2019 our Energy Management System was successfully recertified in line with the new ISO 50001 standard and our energy efficiency objectives were defined for the next three years. On the grounds of our energy policy, we handle the observance of related energy laws and company regulations as well as compliance with other voluntary requirements as a high-priority task. Within this framework, we designated to save an energy volume that corresponds to 150,000 MWh by the end of 2021 and achieve 4% energy efficiency improvement relative to 2018. For the fulfilment of goals, during the past two years we planned to launch a total of 97 programs to improve energy efficiency, the majority thereof has been realised, whereas its minor part is still in progress. A higher ratio of introducing the elements of Industry 4.0 at our Company is included among our forward-looking objectives and with respect to it we expect further optimisation of our energy consumption and significant energy efficiency growth. The Factory of the Year competition announced by Gyártástrend technological magazine indicates the success of our endeavours so far, wherein 2019 we achieved first place in the category of "the most efficient production support processes" and "energy efficiency" in the category of net sales revenues over HUF 10 billion. This acknowledgement also encourages us to further improve our energy efficiency, thus showing a good example for other energy-intensive companies thereby.

### Management

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<sup>&</sup>lt;sup>25</sup> The annual aggregate volume of core products, MDI, TDI, PVC and alkali production is included in the calculation as products representing the highest proportion both in value and volume (>99%)

Achievements

Introduction of BorsodChem

# WATER CONSUMPTION AND WASTEWATER TREATMENT

In the course of our activities performed on our Kazincbarcika site, we consume a considerable amount of water that we obtain from a relatively small and volatile runoff river, i.e. the River Sajó. The water for municipal purposes is provided by ÉRV Zrt. Accordingly, one of our greatest challenges for the future is to reduce the volume of consumed waters and implement the projects launched for the efficiency of water consumption by recycling the water taken off the River Sajó as many times as possible and exploiting alternative water resources.

BorsodChem annually performs ecological status assessment in addition to the quantity and quality testing of the river. The main goal of the test is to monitor any changes in the ecological status that potentially occurred in the River Sajó. We aim at achieving, maintaining and ensuring a good ecological status in the long run based on the Water frame policy of the EU containing priorities related to water management and water protection. The maximum value of our water offtake from the River Sajó and our emission into the river is regulated by the water rights licensing documentation issued by the Water Authority.

**BorsodChem's simplified water balance** 



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**CEO** greetings

### EHS director introduction

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We pre-treat the untreated water taken off the River Sajó based on our objectives and use it in certain technologies according to its needs. Finally, the untreated water is used in the form of soft- and deionised water and steam within the plants. The water leaves at the cooling tower in the largest volume by way of evaporation and this is where our largest water loss comes from. Since our production grows year by year, therefore in consideration of the water offtake volume no significant change could be detectable in recent years despite our continuously launched projects targeted at the reduction of water consumption.

The following programs help us mitigate the planned water consumption:

- we introduced KPI target values at the operating units related to water consumption,
- we decrease our environmental impact through water recirculation (condensate continuous reuse, water transfer among plants, cooling water recirculation),
- on our new Site IV, the rainwater falling on the roof and the road surfaces is collected by a separate canal network, thus we can achieve substantial water savings by utilising the water collected here,
- in 2019-2020 we launched 10 water usage reduction projects and we inform the Top Management about its result every month.





	2017	2018	2019	2020
Volume of total water offtake <sup>26</sup> - River Sajó (m <sup>3</sup> )	9,221,700	9,937,518	10,208,323	9,716,948
Volume of recirculated water in one year (m <sup>3</sup> )	374,141,380	374,213,790	414,931,834	414,823,973

### Management

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In respect of water offtake, its order of magnitude has not changed compared to the previous years. However, if we look at the volume of taken-off water used for the production of total products, we can experience a considerable improvement in specific water consumption relative to 2018, which is due to our measures seeking continued multiple water recirculation and improving water consumption. The estimated recirculated water volume seen in the chart is mainly the result of our three most significant activities (brine recirculation, condensation water and cooling water circle).

LIFE-CLIMCOOP PROJECT

In 2020 our LIFE-CLIMCOOP project started on its way under the management of the University of Miskolc jointly with other trade organisations and in its frames we implement various programs linkable to climate change adaption both with domestic and European Union support. In the following years, we will examine among other things the possible uses of BorsodChem's specific wastewater streams after pre-treatments. If this possibility proves feasible, we can count on a substantial amount of water offtake savings, which will be advantageous to the ecosystem of the river.





<sup>&</sup>lt;sup>26</sup> The total volume of untreated water taken off at our water offtake point, 99% thereof is required for manufacturing our products and we pass on a negligible part of it to companies operating on our other sites, e.g. BC Therm, BC Power Plant.

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### Wastewater treatment

A large amount of wastewater – mainly technological – is generated on our Kazincbarcika site in consequence of a fundamental amount of water and raw material utilisation. The water is purified – within our integrated wastewater treatment system – by and large after pretreatment on our own specially designed Wastewater Treatment Site. We established our sites in a way so that untreated wastewater could not escape into the environment from there. It is a basic objective in the case of our plants to recirculate the used waters as often as possible as per our options, transfer them among the plants, thus reducing the volume of water to be taken off or purified.

We forward the wastewaters of plants via separation canal systems to our Wastewater Treatment Site, thus ensuring the efficient operation of purification technologies thereby. The efficiency of wastewater treatment is supported by our well-organised lab trial system as well. Our proprietary accredited laboratory regularly inspects the quality of wastewater streams based on a carefully elaborated inspection plan, but in many places, online measuring instruments ensure continuous data concerning the most important parameters.

BorsodChem has one wastewater emission point through which we let purified wastewater into the River Sajó as receiving water meeting all legal provisions under the limit values in terms of contaminants. An emission point was also established on Site IV that is for drainage of clean surface – and rooftop rainwater specifically falling only on Site IV. Our laboratory colleagues examine the quality of

treated water returned to the River Sajó according to strict regulations in consideration of the limit values provided by the competent authority and stipulated by law. Main components measured in the emitted wastewater: pH, total suspended matter, AOX<sup>27</sup>, BOI5<sup>28</sup>, mercury, KOI<sup>29</sup> and inorganic nitrogen. The quality of our treated wastewater inspected in our accredited laboratory complied with the legal – and internal regulations in all cases. Our major contaminants with special limit values are mercury, mono nitro-toluene (MNT), dinitro-toluene (DNT), 1.2 dichlorobenzene (ODCB) and toluenediamine (TDA).

The environmental advantage of our own-operated central wastewater treatment system is that by its establishment the application of several purification technology units, large sewage lagoon capacities and the established water flow control options, protection of the receiving water will considerably increase. The utilisation of biogas generating in the anaerobic<sup>30</sup> wastewater treatment technology for steam generation results in the reduction of energy consumption that we use for drying wastewater sludge in the wastewater treatment technology and for heating purposes. This way our natural gas consumption is almost fully replaced and the dried wastewater sludge can be used for land reconstruction purposes.

Our water release also includes the communal wastewaters of the village of Berente and by its purification, BorsodChem contributes to improving the quality of life of locals.

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Management	We create value	performance	responsibility	management	гu





Wastewater Treatment Plant, BorsodChem

### **OPTIMISATION OF THE SBR**<sup>31</sup> (SEQUENCING BATCH REACTOR) **BASIN ON OUR WASTEWATER** TREATMENT SITE

Our continuous capacity increase is accompanied by a larger wastewater load, which we must handle properly also in the long run. For this reason, the operating examination and efficiency optimisation of our so-called SBR basin was realised. The program was preceded by research work in due depth and the scope thereof the optimal conditions were defined (sludge quality, effect of aniline and hydrogen peroxide concentration, determination of optimal temperature range, MNT and DNT decomposition efficiency) by implementing an experimental wastewater treatment model. After defining the appropriate parameters, the sludge of the SBR basin was refreshed and the reactor swung into operation. The result of the research work highly contributes to properly handling the expectedly further increasing the load and thus further maintaining load of the River Sajó at the minimum level.





<sup>&</sup>lt;sup>27</sup> AOX: Absorbable organic halogen chemical compounds

<sup>&</sup>lt;sup>28</sup> BOI5: Biological oxygen demand

<sup>&</sup>lt;sup>29</sup> KOI: Chemical oxygen demand

<sup>&</sup>lt;sup>30</sup> Environment low in oxygen

<sup>&</sup>lt;sup>31</sup> Sequencing batch reactor

# **ATMOSPHERIC EMISSIONS**

Contaminants entered into the atmosphere may make their effect both locally - as a result of the combined effect by way of emissions of other polluting sources - in farther regions and also globally, therefore we are committed to control and reduce those properly.

We have considerable point sources on our Kazincbarcika site, which draw the attention - despite their emission under the limit value - of the local population and transferring motorists. For this reason, our environmental department frequently informs the residents about the rate of emissions via various forums as well: we organise an annual open day, from 2019 we inform those living in the neighbourhood regarding our environmental performance by launching a local "Green Newspaper" quarterly. Moreover, the inhabitants can gain information on our environmental and sustainability results at any time with the help of news appearing on our new website. Our emission in Gödöllő is not substantial.

### Measuring and monitoring of emissions

We apply the air pollutant emission reduction solutions in compliance with the latest BAT recommendations and domestic legal regulations in the production technologies of our site. Recirculation arising from the integrated production and products manufactured by utilising specific end gas streams also further reduces the ambient air load. The marketable hydrochloric acid

solution produced from the by-product gases in the VCM Plant is a good example of the latter one. We seek to minimise the emissions also in the field of atmospheric emissions. Our major air pollutants: nitrogen oxides, sulphuric dioxide, carbon dioxide, fly dust and volatile organic compounds. At some point sources, there are continuous flue gas analyser measuring circuits in operation under ad-hoc accredited control in line with the regulations. The rate of our emissions is publically available via the homepage of the National Environmental Information System. In addition to the monitoring of our emissions, we regularly measure and monitor the ambient air temperature, which also covers the contaminants measurement specific of process engineering beyond the measurement of general contaminants.







A szennyvíz kibocsátásunk vizsgálata – a levegőbe történő kibocsátások nyomonkövetéséhez hasonlóan többlépcsós folyamat. Vállalatunknál a Hulladék- és Szennyvíztisztító Üzem foglalkozik a szennyvízkezeléssel, melynek üzemeltetésére és fejlesztésére minden évben jelentős összegeket fordítunk. A mellékelt ábrán látható, hogy a mért értékek egyik komponens esetében sem közelítik meg a jogszabályban

"Green Newspaper" - quarterly publication

#### TISZTÍTOTT SZENNYVÍZBEN MÉRT PARAMÉTEREK (2019. 01-03)



meghatározott határértékeket. A megtisztított szennyvíz az átlagosító tavakon keresztül kerül vissza a Sajóba, ahol ugyancsak vizsgáljuk a kibocsátott szennyvíz koncentrációját a folyó vizében.



BorsodChem Zrt. - ZÖLD újság löszakos információs kladván

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Kérdése van? Írjon nekünk a ujsag@borsodchem.eu címünkre



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Towards the uninterrupted reduction of our emissions, a KPI –based incentive scheme is in place in the plants and we annually evaluate our emissions. Compliance with the limit values is substantiated by accredited specific and continuous measurements, which also serve as the basis of our compulsory annual authority report. The annual emission values included in the chart are estimated emission volumes derived from data that had been obtained from our measurement liabilities laid down by law.



Management We create value	Our environmental performance	Our social responsibility	Supply chain management	Further in
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Emission of air pollutants (kg/year)	2017	2018	2019	2020
NOx (nitrogen oxides)	70,698.09	52,062.49	62,279.21	60,03
SOx (sulphuric oxides)	6.89	104.34	96.91	5
PM (particulate matter)	4,297.14	3,947.28	5,572.33	5,87
POP (persistent organic pollutants)	0.00	0.00	0.00	
VOC (volatile organic compounds)	8,043.74	8,048.35	11,182.90	9,49
HAP (hazardous air pollutants)	226.23	61.03	97.96	



information



### Emission and monitoring of Greenhouse Gases <sup>32</sup>

As the prominent natural gas user in the region, we have considerable direct carbon dioxide and other greenhouse gas emissions, therefore we participate in the EU emissions trading system. It is the so-called EU-ETS system that is supposed to facilitate to reducing the emissions of specific greenhouse gas (GHG) emitters by stipulating the performance of financial liabilities for organisations applying the polluter pays principle. In the course of our participation in the system stipulated by law, every year we purchase the missing quota to the volume equivalent to our emission from the carbon market established for this purpose in addition to the allocation being free of charge for us and in addition to the above we also fulfil our annual emission reporting task toward the National Climate Authority. Every year an authorised independent third party authenticates our ETS report in line with the legal provisions.

As a company operating energy-intensive technologies, our Scope 1 emission from direct resources and Scope 2 emission from indirect energy use are substantial, therefore we decided to prepare a detailed greenhouse gas inventory in early 2021 based on regulations of the international "Greenhouse Gas Protocol" in accord with our emission reduction plans. According to our plans, we can also quantify our Scope 3 emission related to raw materials production by the end of 2021 and we can come up with such long-term carbon footprint reduction objectives that may lead to climate neutrality until 2050.

The chart and diagram show the specific greenhouse gas emission of the past 7 years projected to product volume. From the outset of data collection, we gradually reduced our specific greenhouse gas emission shown clearly in the diagram.

Greenhouse gas emission based on regulations of the "Greenhouse Gas Protocol"

CO<sub>2</sub>e volume of our direct and indirect emission (Scope 1&2)

Summa Scope 1 (tCO<sub>2</sub>e)

Summa Scope 2 (tCO<sub>2</sub>e)

Summa Scope 1+2 (tCO<sub>2</sub>e)

Total produced core product (t)

**Specific GHG emission (tCO<sub>2</sub>e/t product)** 

% saving relative to 2013

Management	We create value	Our environmental performance	Our social responsibility	Supply chain management	Further in



n	2013	2014	2015	2016	2017	2018	2019	2020
	515,894	506,107	510,642	497,999	508,510	536,278	542,908	535,812
	313,937	337,219	364,111	333,432	336,638	301,140	293,393	295,351
	829,831	843,326	874,753	831,431	845,147	837,418	836,301	831,163
	888,612	993,142	1,024,372	1,032,646	1,013,813	1,018,633	1,094,533	1,093,49
	0.934	0.849	0.854	0.805	0.834	0.822	0.764	0.760
	0.00%	9.07%	8.56%	13.78%	10.73%	11.97%	18.18%	18.61%

<sup>32</sup> When determining our GHG emission expressed in total carbon dioxide equivalent, we also considered the emissions generating in the case of the energy generation plants (BC Therm, BC

<sup>33</sup> A general unit of measurement for greenhouse gas emissions that reflects their different global warming potentials.

### information

Power Plant), which were taken into account in the calculation of Scope 1.



BorsodChem Sustainability Report 2019-2020

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### **Product Eco-profiles**

The carbon footprint reduction is the joint issue of all of us, thus where it is possible to quantify it more precisely – even projected to products – we will take the opportunity. As a member of ISOPA we also – by data supply – give our consent to that the exact environmental effects of the two raw materials of polyurethane, i.e. MDI and TDI also produced by us are defined by way of lifecycle analysis in certain periods at the European level. The latest analysis will be prepared in 2021 with the involvement of all major European raw material producers (including BorsodChem). Since considerable technological changes do not occur in the chemical industry within a short time, the new so-called Eco-profile data will remain in effect until 2026. Since the latest report of 2012, no considerable change has been implemented related to the manufacturing of products resulting in the reduction of the carbon footprint on a whole European level. It also indicates the complexity of technology and its energy intensive nature.

The lifecycle analysis of our chloralkali products is also in progress with the help of the Euro Chlor organisation. We hope that this analysis can also be completed by the end of 2021, therefore we can provide up-to-date data for our Customers in terms of the environmental footprint of products.



# **WASTE MANAGEMENT**

We selectively collect the hazardous- and non-hazardous wastes generating on our sites within the frames of a full-scale waste management system. We apply the EU's waste hierarchy as our basic principle, and within its frames, we make every effort that the production residue, material and used product or by-product, that is repeatedly usable for its original purpose originating from the technology, but can be recirculated into the technological process should stay in the production cycle to prevent waste generation. This way the potential environmental load impact caused by the chemical by-products or wastes is avoidable. This basic principle of ours supports the technological implementation of the circular economy within our Company.

Our wastes are collected, managed, selected and prepared for delivery by the Waste Treatment Site established within BorsodChem and all employees are responsible for observing the waste management regulations within the framework of the waste management system.

We have established a user-friendly IT system for the detailed registration of the type, volume and collection method of the generated waste satisfying legal regulations and we use it daily.

Our most significant waste stream is the sludge-like waste originating from the various technologies, but the construction and demolition waste is also considerable that is not directly related to production. In case of our raw materials – where the type of material permits – procurement takes place in bulk, by applying a dedicated transportation facility thus reducing the use of packaging materials.

The reduction of waste streams is a continuous priority within the Company. To encourage it, we operate a KPI system and we collect wastes selectively.

Primarily the plant manager wastes within the plants, but Management Program, our en volumes and their recycling three

All employees are affected by The selective waste collectors management regulation. With indirectly to make selective was a practice at home as well.

We use the majority of waste reconstruction purposes today, on our behalf is utilised in slude animals and plants can take p care. The waste we use in this factors that result from it do no



Waste management

Management	We create value	Our environmental performance	Our social responsibility	Supply chain management	Further
t within the scope of employees also cont nrough numerous us	of reducing the volum of the Employee Sugge ribute to slashing the v seful ideas. lection within the Com	estion waste PREVENTION WASTE GENE			
rs ensure observan h this good practice,	we instigate our empl ing on the BorsodCher	waste oyees RECIRCULAT m site WASTE INTO		Ę	
ay, since the wastew dge area cassettes <sup>34</sup> possession of the s s way is not landfille	d of by incineration for vater sludge dried by b for landfilling, therefor sludge areas following ed, so the potential neg	oiogas re the after- <b>RF-PROCFSS</b>	SING OF WASTE		
ot have to be borne	by the environment.	Access 1. Annual State of Contract of Cont	SATION OF WASTE ETICS UTILISATION)		
		the second se	N OF WASTE IN AN NT-FRIENDLY WAY		
		hazardous w	aste landfill of Borsodi (	ere operated between 19° Chemical Complex (legal ater sludge was disposed	predecessor

BorsodChem) where mainly wastewater sludge was disposed of. At present, it serves as a non-hazardous landfill with a licence and its land reconstruction is in progress.

### r information





### Reuse within the Company

In the spirit of saving resources, we provide the possibility for our employees to purchase unwanted pallets, office furniture and IT tools considered as waste for BorsodChem at a discount price. We regularly announce occasions for it and our employees take this opportunity in a large number. According to our estimate, with this program, we can prevent the generation of over 10 tons of waste annually, whereas we move in the direction of reuse in line with the waste hierarchy. At present, the construction and demolition wastes originating from our brownfield investments and the ground waste make up our reused and recycled wastes in the largest proportion that we use for different purposes (e.g. land reconstruction in the sludge area, road works). Consequently, the volume of these types of waste is changeable year by year subject to their usability, however, we continuously strive to significantly reduce the volume of wastes to be disposed of and incinerated as it is traceable on the diagram and chart below.

The volume of generating hazardous waste shows elevation relative to 2019, which arises from the demolition of our closed down Chlorine Plant using mercury technology. Our domestic and foreign partners with the appropriate licence dispose of the waste generating here.

### Waste incineration and disposal volume (t)



The total volume of waste (t)
Reuse <sup>35</sup>
<b>Recycling</b> <sup>36</sup>
Composting
Incineration
Disposal
Non-hazardous waste volum
Hazardous waste volume (t)

Management	t
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Waste management

t)	2017	2018	2019	2020
	0	0	28,720	9,514
	22,726	50,082	20,083	24,709
	154	200	182	192
	1,548	1,460	621	994
	12,378	7,182	4,067	3,744
ne (t)	33,978	56,165	52,414	37,171
)	2,829	2,759	1,745	2,497



Waste management

<sup>&</sup>lt;sup>35</sup> Use of ground waste for land reconstruction purposes. <sup>36</sup> Mainly the utilisation of construction and demolition wastes for land reconstruction purposes.

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# **BIODIVERSITY AND LAND RECONSTRUCTION**

Stopping the worldwide reduction of biodiversity or termed as biological diversity is one of the largest global challenges that mankind has to face. When the legal predecessor of BorsodChem was formed, environmental protection and biodiversity were not in public awareness yet and among the deliberations of decision-makers. Even the technology was not at the standard either where it is today, thus – although observing all legal regulations at that time – former operation of the plants in Kazincbarcika entailed a considerable environmental load. Heritage of the past puts considerable weight on our Company even to this date, but we consciously and continuously make efforts to wind up the previous effects loading the environment. Since we operate in an environment being of key significance in terms of conservation, on Natura 2000 areas near one of Hungary's significant rivers, i.e. the River Sajó, the monitoring and protection of the local ecosystems deserve special importance. We frequently perform biological surveys within our affected zone that extend to the examination of aquatic and mainland wildlife in special consideration of avifauna and the growing space of local lichens. We intend to keep up the status surveys also in the future.

We perform the land reconstruction works of the brine storage basins on our Salty lake area in harmony with the Aggtelek National Park. The area – where we mostly stored the salty wastewaters generated during the previous production – consisted of a total of 6 basins and the land reconstruction<sup>37</sup> of two basins has been completed. Further two (M1 and M3) basins will soon be fitted to the landscape. We will not fill up the M3 basin, but the rich avifauna can live on it after replacing its sludge, thus contributing to the development of the local biodiversity. It is to be highlighted that the lake is the living space of protected and highly protected birds (e.g. scooper and avocet) which expressly like saline soil.



The status assessment of the River Sajó has been ongoing since 2008 based on the expectations of the Water Framework Directive. With its help, it is detectable that the emission arising from BorsodChem's activity affecting the aquatic wildlife has no significant impact on the ecosystem of the River Sajó.

Our goal is to preserve and improve the ecosystem of the River Sajó, continuously reduce our environmental effect with the help of the land reconstruction of unused areas that also serve the development of ecosystems.



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Location compared to a protected area or outside the protected area, but connected to high biodiversity

Under face areas	Location compared to a protected area or outside the protected area, but connected to high biodiversity	Type of activity	Operating unit, size of the site (km²)	Type of protected area	Status of prote (e.g. Natura 20 etc.)
0	Neighbouring	Producer	1.8	Mainland ecosystem	Natura200
0	Neighbouring	Producer	0.0049	Mainland ecosystem	Conservation a Natura2000

### information



#### 00

n area, 00

<sup>&</sup>lt;sup>37</sup>Land reconstruction: making an area suitable for recycling or making it fit the landscape

### Land reconstruction of Site IV and brownfield investment

We plan our investments in a way that protection of the environment and preservation of biodiversity are among the crucial aspects as it is also shown by our infrastructural investment on Site IV. We will implement a part of the planned projects at a new venue, i.e. on the area of the former Coal Separator and Heavy Concrete Plant to exclude environmental load, risking the life of the population, reach the highest safety state also because of the crowdedness of our Kazincbarcika site. Here the investment was preceded by the establishment of an industrial site with full infrastructure. The demolition cost of the ruinous facilities left behind by the coal industry on an area having been out of use for long years nearly amounted to HUF 1 billion. When selecting the location of the investment site we also took the opinion and request of inhabitants into account and so we decided on the location of the aniline plant at a possible area farthest from the urban settlements. A socalled "brownfield" investment implemented on an area used by the industry has always a higher purchasing cost than a greenfield construction, therefore the selection of the installation site was welcomed from all legal aspects, at forums and authority discussions. We recycled a part of the uncontaminated debris generated during the demolition in the form of ground material for building the foundation of roads and pavements. We used the other part for land reconstruction purposes. As a result of the investment, an environmental objective with a complex effect is also implemented, since the land reconstruction of the brownfield area was implemented that had been abandoned by other industrial sectors for a long time.



Site IV., before investment

# **NOISE PROTECTION**

BorsodChem adjoins the residential area of two settlements - Kazincbarcika and Berente - as well as Sajószentpéter and Múcsony are also located near us, thus the noise emission of production and our support processes has an impact on the life quality of those living nearby. Our goal is to maintain a noise level that complies with the local communities and the legal provisions. It is our joint mission with the companies operating on our other sites and for this reason, we cooperate to implement new investments in a way that they should intensify the noise load to the least possible extent. For the sake of proper noise control, we operate monitoring stations and noise measurements are also regular. Due to its chemical features, our Company operates constant day and night noise sources and in consideration of it, we attempt to continuously decrease our noise load in cooperation with an external advisor.

At present, we are at the beginning of Stage 2 of a nearly 10-year long noise reduction program series. At the end of Stage 1, an expert opinion was prepared related to the review of the realised tasks of the action plan. A proposal was also made for the interventions required in the upcoming stages, which the expert team elaborated by using the data of ambient noise measurements and the noise monitoring system. In the following years, we will go on with our commenced measures based on the expert document. To the effect of the pandemic situation partially determining the past two years, we slightly

deviated from our preliminary plans, but considerable In parallel with noise reduction investments, we give noise reduction programs were implemented or they are priority to public announcements. During the annual shutdown, there are typically 1-2 public complaints a year still in progress: due to the noise of the inevitable steam blows. We strive • coating of the fresh-air pipeline system, to inform the public in advance of high-noise processes during shutdown work.

- construction of acoustic shielding walls,
- replacement of building constructions and closing wall openings,
- construction of sound-absorbing diffusers instead of the existing chimneys,
- establishment of drop noise catchers,
- partial reconstruction of suction systems.

Besides the scheduled noise abatement of the existing primary noise sources, we also pay close attention to the noise protection issues of new investments and technological developments. As a consequence, noise spread modelling and setting up noise protection criteria preceded the engineering of three cooling towers being currently under construction. Noise protection was one of the important aspects in the case of the areal placement of production technologies to be implemented. Our Site IV located further from the residential area offered a good opportunity to implement this endeavour of ours.

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BorsodChem

# SOCIAL RESPONSIBILITY

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# MANAGING THE EFFECT OF THE CORONAVIRUS

To prevent the spread of the COVID-19 pandemic, BorsodChem took numerous actions in 2020 that serve the health of all of us. Based on the experiences of our Chinese parent company, we could make quick decisions and the Company Management set up a pandemic Operative Steering Group that is tirelessly working on providing as much support as possible in pandemic control even at the time of preparing this report. Our measures remained effective in the facilities of BorsodChem also to this day.

#### **Cooperation with our parent company**

The Wanhua Group proved its solidarity with mutual assistance: the town of Kazincbarcika received a donation from China with the mediation of BorsodChem and in the early stage of the world pandemic we sent face masks and protective equipment from Hungary to China. Later our parent company returned this support multiple times. Our Chinese colleagues found operating airlines with a high degree of ingenuity and we received a larger shipment of protective equipment on the Transsiberian railway after the breakout of the pandemic in Hungary. Many times we sent face masks from Kazincbarcika to our subsidiaries in Italy and the Czech Republic and also our key customers and suppliers struggling with lack of supply.



We temporarily restricted the headcount of our company events (meetings, training sessions).



We ordered the introduction of the daily 12hour shift schedule, where the employees work in a continuous work schedule.



We introduced full and part-time work (home office).



We introduced temporary restrictions applying to vehicles arriving from international traffic.



We externally disinfected all trucks arriving at our site.



We regularly disinfected closed premises by electronic cold water-spraying machine.



We supported the special asset procurement of the central county hospital and the activity of the Kazincbarcika municipal hospital with a donation of HUF 15 million and HUF 5 million, respectively.

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We minimised the headcount of contractors also in case of the required works. We limited contact with the contractors as rare and short as possible.



In our work canteen, we introduced take-away instead of dining there and we also ensured delivery.



We donated a total of approx. 130,000 pcs of face masks and 26,000 litres of hypo to the neighbouring settlements, health and social institutions as well as our business partners.



We encouraged our employees to disregard travel and holiday abroad during the pandemic.



Our employees returning from holiday could resume work exclusively with a negative COVID test.



We required regular COVID test performance for our employees working in operator positions.



We emphasised the importance of vaccination and established a local inoculation point on the Company site.





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**Balázs Szerdy** 

**Director Logistics** 

THE NEW TYPE OF CHALLENGES CAUSED **BY THE PANDEMIC SITUATION MUST** HAVE ENCUMBERED THE RECEIPT OF RAW MATERIALS AND THE DELIVERY OF GOODS TO THEIR DESTINATIONS. WHAT WERE THE **MAJOR HARDSHIPS?** 

The logistics team had to face the challenges caused by the pandemic situation right at the beginning of the WHAT POSITIVE IMPLICATIONS DO THE first wave when the restrictions and regulations related CHANGES HAVE THAT WERE CAUSED BY THE to border crossing were unexpectedly made. We could not use the traditional routes, the delivery times grew **PAST YEAR? IS THERE A GOOD PRACTICE THAT** by introducing the detours due to the closings and **DEVELOPED DURING THE PANDEMIC AND YOU** measures had to be made in the midst of quarantine requirements for the sake of smooth administration. WILL ALSO APPLY IT IN THE FUTURE? This created a new situation both on the side of customer and freighter. The most important task was As a positive impact, I would mention remote work that to quickly adjust to the developing situation. The first works well also in the field of freight organisation among 2-3 months were spent with intense problem solving other things and we also use other – more efficient than since we faced unexpected situations almost daily earlier – online processes. because of the continuous severities. The new routines The development of partnership is also a positive yield. have been formed since then and as a result of it goods Dependence and regular joined-up thinking helped transportation is operating more smoothly.

The documentation colleagues have direct contact with freighters during their daily work, thus we introduced specific protective actions for them.

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### HOW COULD YOU OVERCOME THE DIFFICULTIES?

It is important to note that we recognised the solemnity of the situation at an early stage and we started to elaborate the defence strategy in time. The proper decisions were made at the pandemic meetings in the interest of efficient protection. We adjusted to the emerged situations in time and we concentrated on protection to the maximum in a way that work performance also remained effective.

us to be able to respond to similar situations more efficiently in the future.





Achievements

Number of employees by gender

# **RESPONSIBILITY FOR OUR EMPLOYEES**

We believe that the performance of our Company is determined by the performance of employees and that is why we need to build a motivated, committed and highly qualified labour-power.

We are proud of winning the Loveable Workplaces Award in 2020 as an acknowledgement of our efforts.

The continuous – almost 10 % between 2017 and 2020 – headcount increase was necessary to prepare for our investments as well as launch and operate the plants being built. However, to the effect of the COVID-19 pandemic, the demand for our products saw a decline at first therefore we temporarily moderated our production level, but we could retain all workplaces despite the difficult economic situation caused by the pandemic due to the optimal and diligent operation.

### Number of BorsodChem's employees



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Loveable Workplaces Award



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### Number of BorsodChem full-time employees



Only men can fill in a decisive part of our positions due to the related Number of BorsodChem employees with permanent work contract health regulations. In our occupational health regulation, we stipulated our regulations related to the employment of groups requiring special attention 2,690 and positions forbidden for women therein. The effect of the regulation shall 2,653 2,581 apply to all BorsodChem employees. On the one hand, the higher ratio of 536 550 537 male employees derives from the characteristics of production positions and on the other hand the high ratio of trades (system operation, maintenance, 2000 product loading, electrical service, etc.) is primarily favoured and acquired by men. The increasing number of female employees is mainly linked to the 2,154 2,103 2,044 laboratory activity of commencing operation at new plants. 1000 ·

### Number of BorsodChem part-time employees





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The number of new employees has risen in the past two years due to our investments introduced previously. New employees join the BorsodChem team with a definite employment contract at first and following a successful probation period they are finalised with an indefinite contract.<sup>38</sup>

BorsodChem has a Collective Bargaining Agreement, whose effect shall cover all employees with an employment relationship in Hungary except for the senior management.



<sup>&</sup>lt;sup>38</sup> There is a probation period in place also in case of a fixed-term contract.

### Total senior managers

Not local senior managers

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by the ment	2017	2018	2019	2020
nder the aining	99.5%	99.5%	99.6%	99.4%
	2,774	2,838	2,915	3,046
g ective	2,761	2,825	2,902	3,027

Both Hungarian and foreign citizens are included in the top management:

	2017	2018	2019	2020
ers	75%	75%	56%	56%
	6	6	5	5
	2	2	4	4
	8	8	9	9



<sup>&</sup>lt;sup>39</sup> In terms of the report we consider Hungarian citizens whose mother tongue is Hungarian as local.

<sup>&</sup>lt;sup>40</sup> Definition of senior management: top management level (n-1)

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Number of new employees - Male

Number of leaving employees - Male



### Number of new employees - Female

Number of leaving employees - Female



The increase in 2019 can be linked to the headcount demand of the TPU Plant and that of 2020 is due to the service headcount increase related to Site 4. We expanded our engineering team typically with career starters or young talents become an important resource of our engineering succession wherefrom together with the students participating in our scholarship program – we can welcome more and more young colleagues every year as our employees.

At BorsodChem – relative to the national average – the traditionally low fluctuation has not significantly changed in the past two years either. In 2020 we experienced an even lower employee turnover ratio compared to with less experience. Our students from the dual education system have also the previous years, presumably due to the uncertain labour market situation **Fluctuation** caused by the pandemic.

Number of new employees / fluctuation	2017	2018	2019	4
Average manpower <sup>41</sup>	2,745	2,809	2,888	
Number of new employees	332	225	315	-
Number of leaving employees	191	192	194	_

Ratio of new employees/fluctuation



<sup>41</sup> Average statistical headcount between January 1 and December 31.

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**Balázs Petrohai** 

Officer Recruitment

#### HOW LONG HAVE YOU BEEN WORKING FOR BORSODCHEM AND HOW WERE YOU **ADMITTED TO THE BC CAREER PROGRAM?**

I started to work for BorsodChem on July 1, 2016 right after graduating from the university. I was informed of the BC Carrier Program in the course of its launch in 2018 when I was invited to take part in the program. I had to prepare a motivation letter for this about my intention to participate and career plans. Since the program coincided with my career plans in content, therefore I submitted my application after a very short deliberation. Afterwards I received a positive feedback from the colleagues organising the program and so my participation became certain thereby.

#### WHAT DOES IT MEAN AND WHAT ADVANTAGES **DOES THIS PROGRAM HAVE?**

It is possible for those who participate in the program to develop those competences, which are necessary to fill in a managerial position later. When the program commences, all participants must select a mentor leader, who cannot be his/her own superior. With the help of the mentor, the mentored person compiles an individual development plan and the joint work starts in the framework of which it is rendered possible to

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participate for instance in such project works or at meetings, which would not be feasible without the program. Besides this there are training options during the program with a focus on manager development.

#### WHY WOULD YOU RECOMMEND OTHERS TO **PARTICIPATE IN THE PROGRAM?**

In my opinion, who consciously plan their careers and wish to achieve a specific goal must take all opportunities that bring them closer to their objective. Participation in the Carrier Program – although it requires addition effort from the participants -, but such development elements become available in return, which would not emerge in default of the program or only after years. Since launch of the program, many participants have been appointed manager, which further strengthens successfulness of the program and it is in favour of the participation.





#### **Retention and well-being of employees**

In addition to workforce retention, the headcount increase required for the operation of newly built plants has seriously challenged us in the past two years. The Company headcount grew by 6% in 2019 and a further 4% in 2020.

Transmigration continues to affect chemical engineers, mechanical engineers and electrical professional groups the most. In 2020 the largest rate of fluctuation could be experienced in the field of engineering. In 2020 the engineers voluntarily left mostly due to change of residence occurring as a result of family reasons.

In 2019 we started to elaborate the career paths related to specific positions defining the conditions required for professional promotion. By clearly defining the requirements, BorsodChem ensures predictable and plannable career path opportunities for its employees, which encourages them for continuous development, studying as well as raises their skills and performance to an upper level. In 2020 we also expanded the system to the engineering field that is mostly affected by fluctuation.

In the past two years, we introduced measures and programs increasing employee satisfaction to reduce the fluctuation and expanded the offer of allowances.

Primarily HR Services and Communication are in charge of elaborating and operating actions and systems to further increase our attraction, but all department leaders must play an active role to enhance employee satisfaction and through this the retention force.

In addition to recently introduced motivational programs, we facilitate workforce retention by ensuring a possibility for all our employees via various communication channels to be able to share their problems and questions with the top managers in the form of appropriate forums.

We made continuous efforts to keep our manpower even during the Under the Collective Bargaining Agreement, if the trade unions initiate consultation in terms of the employer measure, decision or its draft, the pandemic period. In certain positions, we ensured the option of remote work, increased the rate of commuting contribution and also ensured equipment employer may not execute the planned action within 7 days reckoned from required to fight against the pandemic. With this, we proved to our employees the initiation. that BorsodChem operates stably even under extreme conditions and it can In case of collective redundancies<sup>43</sup>, the related employees must be informed provide a secure workplace and income. 30 days prior to communication of the notice.<sup>44</sup>

We consider the minimum guaranteed salaries as the basis of our employees' waging. In the case of entrants with a secondary education, the starting/initial basic salary is always compared to the guaranteed salary for the given year and the diagram shows the deviation from this.



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Ratio of entry-level wages and the guaranteed minimal salaries by gender<sup>42</sup>

Any contracting or joining party may terminate the Collective Bargaining Agreement with a 3-month deadline in writing.

#### **Regulation related to the notice period**

Employee notice	30 days	
Mass headcount decrea	30 days	
Employer notice	30 days	
	After 3 years	+5 days
In cases of termination of	After 5 years	+15 days
employment, depending on	After 8 years	+20 days
the years spent in	After 10 years	+25 days
the employment relationship with BorsodChem Zrt. and its legal predecessor	After 15 years	+30 days
	After 18 years	+40 days
	After 20 years	+60 days

<sup>43</sup> When a firm makes at least 30 people redundant.

<sup>44</sup> For the past several decades, such event has not taken place at the Company.

<sup>42</sup> The difference in years seen on the graph is due to the nominal change of continuously developed wage and the guaranteed wage minimum values.



#### Wage policy

We take pride in having been able to continuously expand the range of employee allowances both in 2019 and 2020 and we had the chance to pay out the general wage increase and the performance bonus. We executed a larger extent of wage development in the employee groups increasingly affected by the fluctuation relative to the given annual average.

We developed our remuneration system in a way that the genders have no importance when defining the specific levels. The difference between the average wages is attributable to the previously introduced position types that are considerably different and can be filled by various genders. We classify the positions based on the HAY job evaluation. The annual income of employees is adjusted to the position class benchmark of the position line, thus ensuring their competitiveness.

All employees can obtain at least a 10% bonus annually based on his/her performance evaluation.45



Our awarded employees, 2019



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<sup>&</sup>lt;sup>45</sup> The amount of bonus is at least 10% of the employee's annual salary.

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8 elements of our allowance system include the following:



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#### **Employee satisfaction**

Since 2013 BorsodChem has performed an employee satisfaction survey every year. The management envisages to improve employee satisfaction year by year, however, the satisfaction of our employees somewhat dropped. The decrease is ascribable to the stress and uncertainty related to the coronavirus pandemic. We aim to counterbalance these negative impacts through employer care, a lively work environment and an excellent workplace atmosphere.

In 2020 we prepared a completely new and considerably shorter questionnaire due to which the filling time also decreased and this way the number of respondents also grew. Compared to previous years, we examined age and school qualification in addition to years in service during fillings. Content novelties also enabled the examination of dimensions not measured before – however being of key importance in past years in terms of employee satisfaction – for example, how much employees would recommend BorsodChem for their acquaintances or what those factors are that would foment them to find a new workplace.

We made the following establishments based on the questionnaire results:

· The employees are mostly motivated by material acknowledgement, positive managerial attitude and good work atmosphere and in default of these factors they would principally decide to find another workplace.

• The employees are less satisfied with the salary and allowances and they are the most satisfied with the accomplished activity, their leader and the possibility of utilising their abilities.

Our actions taken on the grounds of findings of the employee satisfaction survey:

- In the wage agreement of 2021 in addition to the basic wage increase - we stepped up the Cafeteria spending limit and the bonus due after the acquired new post examinations by 20%,
- We introduced the "Employee Support Program". The program is a service financed by the employer to serve employees in solving their personal and occupational problems (legal issues, financial problems, mental health and physical health).
- We expanded the career path system to other organisations and positions.

#### Employment relations

The two interest representing organisations operating Agreement as a requirement. at the Company (Chemist Trade Union of Kazincbarcika, Independent Trade Union of Chemical Industry Becoming familiar with the content of our Code of Employees) play an important role in the dialogue Conduct and our Whistleblowing Policy is an integral between the employees and the Management as part of new employees' compulsory training schedule. well as making decisions. Our Management nurtures In 2020, all our employees became acquainted with our partnerships with the interest of representing renewed Code of Conduct in an online training form. organisations. Our cooperation is characterised by We regularly hold ethical trainings and presentations for openness, constructivism and honesty. The frames of our managers about the issues and results of customer cooperation are regulated by our Collective Bargaining audits.

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Agreement that is realised based on good faith, fairness and mutuality principle. We believe that the satisfied employee team is the basic condition of implementing our strategic objectives.

#### Diversity and equality

It is our goal to incorporate the basic principles valid for the company and individual behaviour outlined in our Code of Conduct in the company work culture with the contribution of all our employees. All our leaders shall bear the responsibility of achieving this as well as both its legal and ethical compliance. We consider the protection of human rights, diversity and equality important with a view to those applying to the Company, our employees and partners and we expect them to accept our Code of Conduct and other regulations that contain any related principles. We are committed to paying close attention to that our interested parties should not suffer any negative discrimination. We apply the principle of equal treatment in the course of hiring new employees, evaluating them and also the termination of the employment relationship, which is also stipulated by our Collective Bargaining

We successfully closed down the customer audits conducted during the reporting period, therefore our customers could also make certain of our efficient operation according to our ethical value order.

For the sake of the protection of human rights and equal chances, we ensure various communication channels so that affected parties could make their announcements. We handle any potential complaints related to diversity and equality of chances according to the Code of Conduct, the Anti-Fraud Policy and the Whistleblowing Policy. The announcements are managed by Compliance & Internal Audit. The investigation takes place along with the observance of relevant and effective laws and respect for the human dignity of related persons.

Appearance and spread of the coronavirus caused great damage to the social relations of people not only in their private life but also at the workplace. A consequence of protection against the coronavirus is that we could not hold our annual Company celebration - when we greet those employees, who have worked for BorsodChem for several decades and they truly contributed to our Company's development and successes with their work - in the traditional way in 2020. It is an extremely great value for the Company that some employees spent 25, 30, 35, 40 or even 45 years with us, what is more, we have an employee with over 50-year employment relationship. They ensure the continuity and knowledge transfer between generations during daily operations.



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#### Composition of top management by gender

Distribution of employees according to position and gender



collar oyees	White-collar employees – secondary qualification	White-collar employees – higher qualification	Lower-level managers	Line managers	Middle managers	Senior managers		
Number of employees								
70	516	599	246	78	28	9		
Gender (%)								
3.5	38.4	60.9	93.9	64.1	82.1	88.9		
5	61.6	39.1	6.1	35.9	17.9	11.1		
Age (%)								
5.5	18.0	20.7	2.4	1.3	0.0	0.0		
, +.7	46.7	56.9	68.7	75.6	75.0	33.3		
9.7	35.3	22.4	28.9	23.1	25.0	66.7		







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#### Wu Renzhi (János)

Manager Coordination

#### WHEN DID YOU ARRIVE AT BORSODCHEM AND WHAT WERE YOUR FIRST IMPRESSIONS?

I arrived in Hungary in 2011 as a translator, when Wanhua purchased BorsodChem. Everything was new and unknown for me here. Kazincbarcika is a calm and peaceful little town, its residents are very friendly and hospitable.

The year 2011 was a difficult period in the life of BorsodChem at the time of ownership change, but the future held a lot of opportunities and uncertainties. Besides the joint objective of the Hungarian and Chinese colleagues, i.e. to build a better and safe future for BorsodChem, debates also occurred because of the cultural differences. As one of the first interpreters who arrived here, I was the only communication channel and for this reason I felt a great responsibility.

# PRESUMABLY HUNGARIAN IS ONE OF THE MOST DIFFICULT LANGUAGES IN THE **HUNGARIAN ATMOSPHERE?**

It is never easy to get used to a new culture. China and Hungary show obvious cultural differences concerning dining, lifestyle and work methods. Handling cultural shocks is very challenging for everyone when he/she WORLD. HOW ARE YOU GETTING ON IN THE comes here. I think in the interest of adjusting to the new environment as soon as possible, the most important determination is for us to leave our comfort zone and we Hungarian is a very difficult language. In my opinion, should have an open mind and a receiving heart. Keeping four years of language learning at the university is not in this philosophy in view, I met a lot of good people during the least sufficient to work and live in Hungary. When I my ten years in Hungary spent at BorsodChem and I first arrived at BorsodChem, I needed a large amount of made valuable friendships. They helped me a lot and chemical vocabulary for my work that I did not have then I came to like the Hungarian culture even more. I hope and it caused me huge stress during this time. Fortunately, to play a more important role also in Chinese-Hungarian my Chinese and Hungarian colleagues were very friendly cultural communication in the future and I can contribute and patient and provided me with a lot of help. By to the harmony of different cultures.

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continuously acquiring the knowledge and vocabulary related to the chemical industry and accumulating the experiences in several translations and interpretations, I was able to gradually and easily fulfil the tasks assigned to me. In everyday life, my interest in Hungarian culture and history encourages me to watch a lot of Hungarian films, read many books and participate in various local activities. My language knowledge has substantially improved over time. Certainly, language learning is not over yet. It is like paddling against the stream, when you stop the paddle, the flow of the river will take you back to where you started.

#### WAS IT EASY TO TAIL IN THE FOREIGN **ENVIRONMENT/CULTURE? COULD YOU MAKE ANY FRIENDS?**



#### Training and development

A well-trained stock of professionals and managers is one of the basic conditions of safe, efficient and successful operation in the long run. Accordingly, we lay a great emphasis on the development of our employees. Training & Development is responsible for organising and arranging the trainings at our Company.

Training possibilities:

- E-learning training for new employees concerning the most important information related to BorsodChem.
- Access to internal E-learning training materials via SAP SuccessFactors Training Module.
- · Next Generation Program for our career starter colleagues with a higher qualification.
- 4-week specialised training for new system operators.
- · Assignment of a mentor to each new employee who helps with professional apprenticeship and adjustment for a year.
- · Talent and Carrier Program for talents with an outstanding performance.
- Managerial skills development training, presentations and workshops for our managers.
- · Internal rotation program to become familiar with another field.
- Participation at external training and conferences.

We made efforts to ensure the qualified manpower required for our new plants within the framework of training activities organised and financed by our Company jointly with our partner schools. We launched

#### Number of training hours



chemical system operator training 3-4 times a year with them for a group number of 20-25 persons occassionally. By seeking more flexible training frameworks, we started to elaborate a training construction where the participants enter into employment relationships from the beginning of the training and received the required knowledge as internal training. We develop the training material by focusing on our technologies in a way so that at the end of the training the participants should be prepared – after a short apprenticeship period in the plant – for independent work.

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In 2020 the majority of external and internal attendance training was cancelled due to the pandemic, therefore the number of training hours shows a considerable decrease. However, more emphasis has been placed on the development of online education and e-learning materials. The e-learning materials are individually processed, so they were not taken into account in the calculation of the training hours.



In 2019 19,984, in 2020 a total of **37,737** training activities were realised in the system.

# SuccessFactors Training module

In 2019 we introduced the SuccessFactors (SF) Training module that changed our training administration and training organisation practice in its base. Being different from previous interfaces, all employees have direct access right to SF and this way he/she can arrange and maintain his/her training activities: he/she may request training, apply to an announced training and also monitor his/her training history.

Another main advantage of the training module is that it provided the opportunity to apply to a wide range of online training and E-learning. Previously this training form was comparatively rarely included in our programs, but simultaneously with the introduction of SF, we strived to make the so-called "E-learning" popular and acceptable within the scope of colleagues.

- · 674 online trainings are available in the SuccessFactors system
- Every month we have 3,000 training activities on average that were almost exclusively online training in the past year.









<sup>&</sup>lt;sup>46</sup> The number of training hours per capita, which does not include online training, was calculated with the average statistical headcount.

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#### Gabriella Kovács

Coordinator of retraining course for system operators

#### YOU HAD AN IMPORTANT ROLE IN THE **IMPLEMENTATION OF THE INTERNAL SYSTEM OPERATOR SCHOOL. WHAT DIFFICULTIES DID** YOU HAVE TO FACE WHEN REORGANISING THE **PROFESSIONAL TRAINING?**

Because of the transformation of professional training, from this year it is not possible to train chemical system operators in the form of adult education according to our former practice any longer. To satisfy the operator headcount demand of BorsodChem, the system operator retraining was replaced by the internal training of "Technology System Operator" launched in February 2021.

When compiling the educational material of the training, what we kept in view was to train system operators for the production plants of BorsodChem, who have a usable basic knowledge to acquire the knowledge required for operating the technological processes. The new training schedule containing 480 theoretical lessons was supplemented by BorsodChemspecific material elements keeping useful parts of the old syllabus.

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#### HOW DOES THE TRAINING PROGRAM **PROCEED?**

According to the training program, first, the basic chemical and technical knowledge are deepened - considering that participants arrive here with different knowledge levels - followed by the training on consecutive professional materials. Outlining the conditions of safe work and environmentally conscious behaviour is also a part of the primary training. We requested internal trainers for our technology system operator training, who are considered to be experts in the given field at the Company. We seek to demonstrate the theoretical information to participants through practical examples and visual aids. In addition, we make the training more diversified using interactive digital training materials, thus assisting the acquisition of knowledge. It is our goal during the 3-month long training to provide a solid base to hold their ground subsequently in the technological field.



#### József Csorba

Coordinator of retraining course for system operators



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#### Our training and educational results

- Playing an active role in launching the professional training 4.0 strategy as a presidential member of the chemical Sectoral Skills Committee
- · The chemical engineering training course successfully started at the University of Miskolc and in 2020 a quadrilateral cooperation was started (with the participation of the University of Miskolc, the town of Kazincbarcika, János Irinyi Reformed Educational Center and BorsodChem) for the development of chemists training and placement of the correspondent chemical engineering training course to Kazincbarcika
- · Establishment of an operational laboratory for the practical training of university students

#### Health and Safety

We defined and state our commitment to safety and the measures required to reach them at all levels of the Company to develop the safety standard at Company level, safety awareness, observe rules, intensify the safety culture as well as follow the principle of "I am responsible for the safety of my work area".47

All our employees shall assume the responsibility for maintaining safe working conditions and minimising risks, we raise our employees awareness through a multi-level safety training system.

Our mandatory occupational safety trainings:

- Safety training for new employees: for all new recruits before starting work
- Regular refresher training on a quarterly basis
- Safety trainings to be passed every fourth year: for all colleagues working in the plant/technology field

training

Our Company has been operating its OHSAS (Occupational Health and Safety Assessment Series) system according to the OHSAS18001/ISO45001 standard since 2010, which was supplemented by the PSRM (Process Safety and Risk Management) system introduced in 2018. The basis of our management system is the assessment and identification of risks, specification and introduction of risk reduction measures.

The annual risk assessment covers the following areas:

- major health impairment effects of positions (occupational),
- risk assessment of the effect of chemical pathogens,
- quantified risk assessment of carcinogenic materials,
- psychosocial risks,
- other occupational safety hazards and related risks.

We monitor the disclosed risks and the measures made for them in a computer database. We inspect their implementation monthly and we also include the statements prepared of the risks in the executive report.

In case of severe accidents, we execute an extraordinary risk assessment and define risk reduction measures on the grounds of the work processes review, onsite visit and a quantified evaluation.

We operate a health monitoring system in cooperation with the health service provider operating on our site to prevent occupational diseases. Regular medical screening examinations defined for positions ensure the recognition of potential diseases in due time. For instance, we perform tumour marker and BEM examinations within the range of employees classified according to risks. Furthermore, we also enable participation in genotoxicity examinations. No lethal accident and occupational disease

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• In addition, the nature of the site and the job will determine the need for additional training, e.g. Boarding work permit issuer training/Work permit issuer training/First aid training/ADR knowledge/Fire protection exam

occurred during the reported period on the BorsodChem site. The diagram below summarises the number of injuries and accidents not accompanied by loss of work time, requiring first aid and accompanied by loss of work time (AC4 and AC5<sup>48</sup>).

#### **Injuries and accidents**









<sup>&</sup>lt;sup>47</sup> You can read more about it in our Health-, Safety- and Environmental Policy and objectives *here* and *here*.

<sup>&</sup>lt;sup>48</sup> AC 5: 1-3 day injury accompanied by loss of work time that is not reportable, AC 4: Reportable accident, an injury that entails the loss of work time.

<sup>&</sup>lt;sup>49</sup> The First Aid category was introduced in the last quarter of 2019, full annual data is available for only 2020.

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Our Occupational Safety and Health Management System shall cover all our employees. In the plants so-called HSE coordinators arrange for coordinating the work safety and health protection, safety and environmental tasks of the area, calling the attention of managers, employees and contractors to the differences, examining the suggestions of employees and carrying it on to plant manager level. Our employees can also contribute to the continuous development of workplaces and processes with their ideas and suggestions via our ESP<sup>50</sup> system that serves this purpose.

A Parity Work Safety Board<sup>51</sup> is operated at our Company that provides an opportunity for employee interest representation. Presidency of the employer and the employee side changes annually. The annual tasks are registered and the president supervises its fulfilment. The regular meetings are documented and held systematically.

Our "Safety First" motto is incorporated in our allowance system<sup>52</sup> and it has several health- and safety-related elements.

#### Health services

Our employees receive special medical care in our occupational medical office equipped with modern equipment. Besides compulsory screenings, our employees can contact the doctors of our occupational health service provider at any time during regular surgery hours.

We set it a goal to highly emphasise the development of health consciousness thus supporting the strengthening of our employees' safety consciousness. Our recently introduced allowance element enables our employees to utilise such independent private health services for free, which help the preservation of health, the prevention of diseases and their early recognition as well as they provide easy and quick access to professional medical care in case of complaint.

We have added the so-called "Mini-hospital" service operating on our site where our employees can take part in voluntary screening examinations and treatments. Within this framework, 15 medical examinations became available onsite and we procured advanced medical instruments in a high value to ensure a high standard. In the Company's occupational medical office, physiotherapy, medical exercise and medical massage ordered by specialists can also be requested in a prearranged time and it can be utilised onsite.

In 2018 we introduced a new allowance form covering all employees that is a health insurance service financed by an insurance company. All our employees have a membership card with which they can utilise the services. The health service can be expanded to close relatives and in this case, the employee must individually pay the insurance fee related to them.

Coming of the world pandemic also highlighted the importance of a healthy lifestyle and it became a key issue to lay even more emphasis on health-conscious approach and movement in 2020. Within the frame of our challenge program, we ensured 4 occasions for organisational units during the year to show how actively they perform the trials. As a result of it, we spent nearly 441,400 minutes with free-time exercise.

- competition.
- program series supporting health consciousness.

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 The Hungarian Mass Sports Association forwarded the tender of BorsodChem from Hungary as the only one to the international

• In the past 2 years, we further developed and expanded our challenge

## A week for health

We organised the Health Week in 2018 for the first time to make it a tradition linking to the challenge program series announced in the reflection of a healthy lifestyle and the conscious shaping of employees' views.

In 2019 we went on with this initiative, so we repeatedly devoted a week between September 16 and 20 to focus attention to the health-conscious approach and movement.

Prevention and screening examinations were supposed to play a key role in the event schedule since prevention and the identification of risks considerably contribute to maintaining our health and positively influence our life quality. Additionally, in the course of the week, we revealed the secrets of health-conscious nutrition, effective stress management being a part of our everyday life and an active lifestyle.

During the week we gave out apples at many points of the Company in the frame of fruit days driving employees to eat fruits. In addition, we broadened the offering of the works canteen with new items and we also enabled employees to buy apple, pear and meat products originating from sustainable management.



<sup>&</sup>lt;sup>50</sup> Employee Suggestion Program

<sup>&</sup>lt;sup>51</sup> Parity Work Safety Board: a board made up of an equal number of parties, i.e. the representatives of the employer and the employees

<sup>&</sup>lt;sup>52</sup> Further information can be obtained **here.** 

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Szilvia Sebők

**Communication Referee** 

AS THE COORDINATOR OF BORSODCHEM home!) we focused attention on the immune system reinforcement effect of the active lifestyle. We SPORTS EVENTS, WHICH INITIATIONS WOULD switched over to online form so that our employees YOU HIGHLIGHT FROM THE PAST YEARS? should not go without the weekly Pilates and Fit Training lessons held at the Kazincbarcika and Gödöllő sites including other sport possibilities. Worldwide As part of the complex health and exercise program cancellation of the "Challenge Day" did not break supposed to create the health culture, we launched the our enthusiasm either. Rethinking it and seeing the "Challenge program" series to encourage the exercise workload of the health provision system caused by of our colleagues, within the scope of which we the coronavirus, we combined our forces for them regularly provide the opportunity for the organisational units to "compare their forces". In May 2019 we in May thgough the "Challenge Month" organised by us. We considered the collected minutes not only entered into a competition for the title of "The most in the competition, but our Company exchanging Sportive Workplace of Hungary" with the most teams in the country, i.e. 23 teams (133 persons). During the these minutes into money offered a donation in a value of HUF 1,520,000 for the modernisation and Challenge Month, we could not only compete in the asset procurement of the Ambulance Station of showdown among organisational units but also for our workplace moving together with the country. Within Kazincbarcika. With respect to the pandemic, the our health week, the running competition organised on role of health has grown in value, thus we offered our thematic programs formerly concentrated on our Kazincbarcika plant site was a great adventure for the Health Week throughout September in the our employees. form of scheduled screening examinations as well as professional and exercise videos. We did exercise through the month that we closed by a Virtual site run HOW COULD BE COLLEAGUES ENCOURAGED (performance of 3 km in an arbitrary place and time) also joining the "European Sports Week".

# TO DO EXERCISE ALONG WITH THE PANDEMIC **RESTRICTIONS?**

The appearance of the world pandemic overwrote our daily life and made us shift from our "comfort zone" and necessitated the application of specific solutions. In 2020 with our first trial (Workout at

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#### WHAT PROGRAMS ARE EXPECTED IN THE **NEAR FUTURE IF THE MITIGATION OF RESTRICTIONS CONTINUES?**

As regards 2021 we participate in the Colour Run in August with our own team again. In September we repeatedly devote a month to health, which we hope to fill with more and more community programs owing to the mitigation of pandemic restrictions. At the end of the year, we will put the colleagues on a final trial and afterward we will announce the winners of the year.





#### Local communities

The Town Council of Kazincbarcika confers For the Public Safety of the Town of Kazincbarcika award once a year to those persons or communities who perform a surpassing quality work for the public peace of the town, maintenance and improvement of its public safety or who successfully hold their ground in extraordinary situations as high-performers. In 2020 the town management and the professional advisory board in conjunction with several other organisations evaluated that the Onsite Fire Department of BorsodChem highly contributes to maintaining the safety of the town of Kazincbarcika.

As an acknowledgement of this, the Fire Fighting Commander of our facility on behalf of the Onsite Fire Department could take over the "For the Public Safety of the Town of Kazincbarcika Award" from the town superiors.



Kazincbarcika City Public Security Award Ceremony



Kazincbarcika City Public Security Award Ceremony

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BorsodChem Fire Brigade

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Levente Demkó

Fire Fighting Commander

IN JUNE AS THE FIRE FIGHTING COMMANDER OF BORSODCHEM, YOU COULD TAKE **OVER THE "FOR THE PUBLIC SAFETY OF** THE TOWN OF KAZINCBARCIKA AWARD". **CONGRATULATIONS! WHAT ACTIVITY WAS THE** AWARD GIVEN FOR?

By the award primarily BorsodChem's safety policy and the efforts made for the safety of those who live in the neighbouring settlements and certainly the devoted activity of the Onsite Fire Department's staff were acknowledged. In default of these, life would be much riskier in the settlements close to our Company. The activity that the firefighters do day by day is very complex and hazardous. Despite this, relying on the professional knowledge acquired at the training and the experiences gained during the years in live situations or drills, they are ready at any moment to respond to a potential emergency case as soon as possible considering all elements of professionalism during their years in service.

#### WHAT FEELINGS DID YOU HAVE CONCERNING THE NEWS OF THE ACKNOWLEDGEMENT?

Of course, I was proud to hear the news. I am grateful that it is not only us who consider our job important and efficient, but also the town management and the award confirmed it for us. We owe appreciation for this!

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# WHAT SPECIAL CHALLENGES MUST A CHEMICAL COMPANY?

# **FIREFIGHTER BE PREPARED FOR AT A**

As we usually say: anything may happen here! A beginner firefighter must meet lots of criteria to get among those at all, who may become a firefighter. Due to physical power, stamina, psychic compliance, panic negligence, etc., the chemical industry is just "icing on the cake". After obtaining the appropriate fire fighter qualification comes the real challenge! 24hour standby service, obtainment of site experience, knowledge of the physical-chemical properties of hazardous substances, protection against them, acquisition of operating firefighter vehicles, knowledge of built-in fire protection system, resistance at endless drills and finally compliance in live situations.

The challenges are great, but still, my colleagues like working here and it is the most important feedback for me.





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# **RESPONSIBILITY FOR OUR CUSTOMERS**

#### Health and safety

Knowledge of the properties and effects of our chemicals is the basic condition of safety. We are fully committed to the implementation of REACH and for this reason, we closely cooperate with our customers and suppliers. We registered all materials that we produce according to the direction of REACH. We keep our safety data sheets up-to-date in conformity with the REACH and CLP regulations.. We send the safety data sheet of the purchased product to all our customers via our company system in the customers' communication language.

Every year we issue hundreds of statements and declarations upon our customers' request related to product composition as well as the observance of various national and international regulations.

The majority of our products are hazardous goods and their handling calls for special attention both on our and the customers' behalf. Any manipulation of the product requires appropriate expertise from raw material supply to unloading/discharge of product at the customer. Only a driver with an ISOPA card can transport an isocyanate (MDI, TDI) product, organized by BorsodChem, the card that certifies that he acquired the training material compiled by the isocyanate producers association, i.e. ISOPA and he has the information related to handling the respective hazardous substance. We take this action for the safety of our customers and the freighter staff.

We record and investigate the safety shortcomings that came to the knowledge of our employees in the database established for this purpose.

	2017	2018	2019	2020
Property protection	7	11	7	33
Traffic safety	175	231	221	251
Environmental	8	7	8	25
Safety	198	292	248	528

The significant growth in the number of safety incidents came from the accelerated inspection of the health mask-wearing practice of enterprises performing contractual work on our site as well as it was caused by the remarkable rise of contractor number in 2020 accompanied by the large number of investment projects.

As part of our Integrated Management System we defined a Safety Policy as well as goals and objectives in line with it and we launched their implementation.

The safety performance is periodically assessed based on the HSE key performance indicators marked out at the company level.

Based on the recommendation of the trade association ISOPA, we execute the Walk the Talk program upon our customers' request (in case of 3 customers in 2019-2020), at which we hold training on safe materials management and protective equipment use. Also requested by customers, we conducted an onsite audit, where we inspected the customer's unloading and product handling practice and we made recommendations for the development of their processes to enhance safety and health protection.

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#### HSE non-conformities detected during the inspection of the contractors





#### Data protection

Safe data processing is a basic requirement in business life, which serves the interests of our Company and our partners at the same time. The loss and leakage of data may cause harm to our Company, employees and partners equally as well as it may also hurt fair competition.

We defined our expectations for our suppliers in the Supplier Code of Conduct issued in 2020, which among other things also covers data protection. As we also expect it from our partners and competitors, we do not attempt to obtain information related to the business activity of our competitors either in an unfair and unlawful way.

We treat our customers in a discreet manner, which also covers the protection of information received from them and its confidential treatment. We consider all partnership information as confidential at BorsodChem and we handle them in line with our Information Security Code and Information Security Policy.

With the GDPR coming into effect, we issued a special regulation related to the protection of personal data that ensures the fulfilment of legal requirements. We organise trainings for our employees to be aware of their rights and liabilities related to personal data processing.

A responsible information security expert is employed at our Company for the enhanced provision of data protection tasks.

From 2019, besides the Whistleblowing Line data subjects may report their concerns and complaints related to data protection as well as any potential personal data breach at the e-mail address of infosec@borsodchem.eu. In 2019 and 2020 no personal data breach occurred falling into the scope of liability of BorsodChem.

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# **RESPONSIBILITY FOR LOCAL COMMUNITIES**

As a responsible employer, we are not only committed to supporting local communities,<sup>53</sup> but we also highly focus on environmental protection and safety. Our Company is characterised by sustainable operation and our activity, as well as responsibility, reach over the plant gates. We do not only pay special attention to maintaining employee health, but we are also committed to helping local communities. However, the Open Days traditionally ensuring one of the most direct discussions were cancelled due to the pandemic, several contact methods remained.<sup>54</sup>

The Dispatcher Service receives the announcements from external interested parties or requests related to information 24 hours a day and arranges for their investigation. Following the announcement, the competent organisation informs the notifying party about the causes of the incident and the potentially taken actions. In 2019, one announcement was received due to the effects of noise and odor. In 2020, four announcements were received in two cases of atmospheric emissions, and one more in each case due to the effects noise and odor.

Available for an external party at any time in case of an emergency or any other question: Dispatcher service phone number: (+3648511515)

<sup>54</sup> Further information can be obtained **here.** 

In 2019 and 2020 we worked to create value for our stakeholders, colleagues important to ensure a predictable and stable workplace for the region's and society. We managed to further elevate the Company's cost-effectiveness population. in 2020, which was a key factor to efficiently handle the recession generated The new plants and our continuous developments require headcount by the COVID-19 pandemic crisis and reach further successes.

The successful operation of our Company substantially influences the social processes in the region, since as one of the largest employers in the area we contribute to the subsistence of numerous families. We consider it especially

## Establishment of thermoplastic polyurethane plant

With the implementation of the investment, the Owner Wanhua starts thermoplastic polyurethane production in Europe in addition to the production capacity in China in line with its strategy. The new plant is of key importance since it generates a more diversified product portfolio, which further facilitates successful and efficient operation. The product having outstanding technical parameters is a versatile raw material that ensures excellent innovation possibilities. Its strength is flexibility and resistance that it can provide reliably in a wide temperature range. Its major areas of application are automotive and shoe industry, construction, technical goods production and it can also be used for therapy purposes. The establishment of the new plant creates new workplaces, by which it contributes to regional development.

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expansion, thus we could create new workplaces. BorsodChem actively supports secondary and higher education, which contributes to ensuring the properly qualified manpower in the region in the long run.





<sup>&</sup>lt;sup>53</sup> Definition of local community: the population of settlements located within 25 km range of the site.

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We are committed to the economic development of the region and in this spirit, we primarily support Kazincbarcika and the neighbouring settlements and we have relations with several facilities of the country in the field of education.

Key areas constituting the foundations of BorsodChem's support policy:

- Enrich the cultural life of Kazincbarcika and neighbouring settlements,
- Support local and regional environmental projects and events,
- · Making healthy lifestyle popular within and outside the Company and support mass sports,
- Support organisations that perform the assistance of socially in need,
- Raise the standard of education in the region and "build" the future generation of chemists,
- Support activities related to the Chinese culture,

In 2020 many of our events were cancelled and we could hold the following programs in recent years:

- · 2019: 4 residential information, 2 public hearings, 2 tree-plantings, 1 residential open day, 2 bird watching
- 2020: 1 tree planting, 1 LIFE project outline

In 2020 we could not organise the traditional christmas donation collection either due to the situation caused by the pandemic. However, there are still people in need, who await the help of those who wish to donate. We organised a new type of collection to bridge the restrictions that developed due to the pandemic situation and everyone forwarded the offered donations individually to the organisations provided by us, for whom we used to collect in the previous years as well.

Rethinking the "You Pick It! Volunteer for a clean Hungary!"! movement we organised a waste collection action within the range of our employees in March 2019. Our goal was to clean the outdoor areas in the direct proximity of our Company, BorsodChem housing estate and the bus station at Szent Flórián tér including the area of the Industrial road next to BorsodChem site IV and along Zagytéri út as well as the area girding our Gödöllő site. Nearly 140 employees joined our waste collection program, who helped us collect approx. 350 bags of waste and other waste of larger size.



Tree planting of BorsodChem employees

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# **RESPONSIBILITY FOR SUCCESSION**

We lay a large emphasis on the training and education of future generations and our programs are primarily targeted at youngsters in secondary and higher education.

We hold career path orientation programs starting at the age of primary school e.g. the chemical study circle organised for 8th graders. In addition, we operate a scholarship program for secondary and higher education students with outstanding abilities.

In consideration of our Company's demands, we have an increasingly larger role in chemical specialist training, therefore we also support secondary professional training and higher education with professional traineeship possibilities. Within the framework of the cooperation agreement concluded with Irinyi János Reformed educational Center of Kazincbarcika we outline our activity and technologies for chemical students during mid-year and summer professional practices.

We launched a chemical faculty at the Szalézi Szent Ferenc Secondary School of Kazincbarcika, which prepares students for further studies in the chemical industry career path as part of the curriculum. Our Company provides professional support for compiling the curriculum and ensures raw materials for various experiments and also offers a plant visit opportunity for students.

As a dual training site we participated in higher education training and related students take part in practical training at our Company according to the dual curriculum of the given faculty.

In 2006 our Company established outplaced chemical departments jointly with the University of Miskolc and in 2018 with the University of Debrecen, with which we tightened our professional and educational relationships even

more. We support the training of materials engineers at the University of Miskolc in cooperation with the Institute of Chemistry. It is an extraordinary success for us that we could contribute to the start BSc degree course in chemical engineering at the Faculty of Materials Science and Engineering from September 2019 and MSc degree course in cooperation with the chemical companies of the county from February 2021.

However, our training activity does not stop at the level of educational system training. To satisfy our increased manpower demand we operate chemical system operator retraining programs in the form of adult training for job seekers and those who wish to change their careers.

We established our own Training Center on our Kazincbarcika site to gear up the efficiency of trainings that we equipped with the visual aids required for practical training. In addition to the retraining programs, the facility also houses several of our internal training activities and professional practice engagement for secondary school students.

Our Company continuously makes efforts so that chemical training should be among further education options that are favoured and gladly chosen again both at the secondary and higher education level. We introduced two measures in the spirit thereof: we provide our employees with enrolment support and career orientation bonus, whose child pursues chemical studies either at a secondary or higher level.

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Chemistry facultation

Our Company's external training and development programs:

Program description	Target group and objective of the program	Number of participants (in 2019-2020)
Chemistry club	A club for 8th grade students of Kazincbarcika, which aims to inspire the basics of chemistry amongst interested students using gamification	10 people
Chemistry faculty	Raise the interest of 11-12 grade students of Szalézi Szent Ferenc Secondary School in the chemical industry and prepare them for chemistry matriculation.	10 people
Career orientation days	Career guidance programs organized for different groups (primary school, secondary, girls, youth groups, etc.), sometimes attended by our organization, sometimes organized by us.	Approx. 600 people in 2019
Chemical system operator retraining course	System operator retraining course, where BorsodChem covers the full cost of the training, the travel expenses, and provides monthly financial support to the participants.	Approx. 80 people per year
Professional practice programs	Various practical programs for secondary school and university students.	Secondary: 63 people, Higher: 34 people
Scholarship program	Various professional practice programs for secondary school and university students.	Secondary: 25 people, Higher: 6 people
Dual training	Dual training in cooperation with three universities	18 people



University of Miskolc, Distinguished Sponsor Award

The University of Miskolc is the strategic base of BorsodChem's employee succession with a higher qualification since at present the number of our colleagues is 227, who graduated from this institution. We also closely cooperate as regards training. Currently, our Company provides a dual training site for 14 university students and 5 students pursue their studies with BorsodChem scholarship.

We are highly delighted that 22 chemical engineering students began their studies in the first year in September 2020.

Our owner, Wanhua and personally our former Chairman and Chief Executive Officer, Jiansheng Ding had a considerable part in the foundation of the third Confucius Institute in Hungary both as a suggester and a supporter. In case of the majority of over 500 Confucius Institutions in the world aiming at popularising the Chinese culture and language, the Chinese partner is usually a liberal arts institute. However, an exception to it is the University of Miskolc, whose partner institute in China is the Beijing University of Chemical Technology,. At the same time, this choice also ensures a trade partner for the University of Miskolc concerning the recently launched chemical engineering training course.

Our future goal is to fill in our relationship considered as strategic at present with wider and even more colourful content trusting that with this step we will arouse the interest of the best graduates from the University of Miskolc towards our Company.

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Interview with Kinga Bán, Dual training coordinator

#### IN WHICH YEAR WAS THE FIRST DUAL TRAINING **REALISED WITHIN BORSODCHEM AND WHAT BRANCH/BRANCHES OF STUDY IS/ARE AFFECTED?**

In 2016 BorsodChem was among the first ones that joined the scope of domestic economic associations at the time of introducing the higher dual training system, who actively participate in university education as a dual partner organisation. At present, we have a dual cooperation agreement with three institutions, these are the University of Miskolc, the University of Debrecen and the University of Pannonia. In addition to chemical engineering, materials engineering and mechanical engineering students, we also accept students who pursue economic science studies within the frames of cooperation. A characteristic of the dual training form is that the students spend a decisive part of the period of the term at the partner company with professional practice. Through this, they gain such proficiency in the given trade and in the life of work, which will ensure a considerable advantage for them in the labour market after completion of their studies.

### WHY IS BORSODCHEM AN ATTRACTIVE PARTNER **COMPANY FOR THOSE WHO APPLY TO UNIVERSITY?**

After the arrangement of the dual professional practice, we seek to ensure a diversified, various and professionally eventful professional period for the students. During the summer months, in addition to

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dual students, we receive university students in a large number who pursue their studies in the traditional training system – even from other departments – to spend their obligatory summer professional practice. We always encourage the receiving organisational units to involve the students in the daily work progress as much as possible since by performing the tasks the acquisition of practical knowledge deems much more efficient. Besides the professional practice, we also provide the possibility for thesis paper consultation.

#### IN WHAT OTHER WAYS DOES BORSODCHEM HELP UNIVERSITY STUDENTS AND FRESH GRADUATES WITH THEIR PROFESSIONAL DEVELOPMENT AND **CAREER BUILDING?**

Since 2017 we annually announce our STEP – Smart Talented Engineer Project – competition for engineering students, where we expect the elaboration of creative and usable solutions for an actual technological problem from the applying teams.

#### AFTER GRADUATION WHAT POSSIBILITIES DO YOU **OFFER FOR DUAL STUDENTS AT THE COMPANY?**

We are happy to experience that every year increasingly more dual students and professional practice students or even fresh university graduates who participated in the STEP competition start their professional career with us. Our Next Generation program helps their integration during the first months at work and launches them on a long-term BorsodChem professional career path.





# SUPPLY CHAIN MANAGEMENT

BorsodChem Sustainability Report 2019-2020



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# SUSTAINABILITY APPROACH

Raw material procurement is highly emphasised in our material intense industrial sector, which is one of the major determinants of our product competitiveness. Material supply is also a significant area in our materiality assessment.

Beyond appropriate quality and the total procurement cost, we deliberate many other factors when making our decisions on procurement. We consider material properties, their potential health hazards and their hazard on our closer or wider environment, potential logistics solutions and supplier reliability. In case of procuring our technical equipment, we also consider the energy efficiency aspects in the invitations for tender and their evaluation when making the final decision.

We also lay a great emphasis on the proper inventory level placing the safety aspects in the first place.

We prefer direct production relations shortening the supply chain. Since the scope of our potential suppliers is limited, long-term relations are usually supplementing it with some short-term cooperation. This dualism provides our material supply with safety and flexibility at the same time.

It is important to procure products from rated suppliers due to the strict quality requirements. We evaluate our potential new suppliers and contracted partners (contractors) according to a pre-rating system prior to the first orders. We evaluate the performance of our existing and introduced suppliers annually. We also incorporated sustainability aspects both in the pre-and annual rating.

In addition to the central Sustainability Group, we also established a sustainability related position within the procurement organisation.

In 2020 the Compliance organisation of BorsodChem performed an analysis of whether the phenomenon of unreported employment is present in the field of procurement within the scope of our partners in Hungary contracting with our Company. In 2021 a monitoring system was introduced for the above scope of partners. Both the executed analysis and the regular examinations show that the significance of black labour is practically negligible in the above activities and determining supplier range of BorsodChem.



Storage at Kazincbarcika Site

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In recent years the logistics of materials has been even more challenging than the availability of appropriate resources. The related changes are usually global and our influence on these is restricted. Yet at the same time, BorsodChem has taken several steps to reduce its exposure, thus among other things we rent port storage capacities.

In case of materials handling, we seek to reduce the delivery time and distance as much as possible; 48%<sup>55</sup> of our suppliers are domestic on average. When planning delivery, we always try to choose a less environmentally intense and energetically more efficient transportation method. In case of our feedstock, we prefer railway transportation instead of road transportation. Instead of separated (one by one) delivery we prefer the reception of shipments by direction train, thus contributing to the reduction of CO2 emission arising from transportations thereby.

The primary objective of BorsodChem's ongoing investments and other related investments onsite in parallel with the capacity expansion of our main products is to partially or fully implement the local production of raw materials required for those, thus reducing the CO2 footprint of the supply chain and other risks of procurements thereby.

<sup>55</sup> In terms of the number of suppliers



During our operation we work from the following main raw materials:

- Salt
- Chlorine
- Ethylene
- Aniline
- Toluene
- Methanol Formalin
- Concentrated nitric acid
- Hydrogen and carbon monoxide

Further of our raw materials and auxiliary materials constitute a minor proportion both in volume and total value, therefore they are not included in the report.

We pay closer attention to our partners who supply the main raw materials to ensure availability.

#### Utilised, recycled raw materials



<sup>56</sup> Either in the form of brine or boiled salt

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The Management regularly monitors the material supply process. Procurement reports on the relevant situation of raw material supply at weekly, quarterly and annual meetings and the fulfilment of performance indicators targeted for the organisation attended by senior managers.

BorsodChem has become a member of the TfS (Together for Sustainability) initiative via its parent company and gradually enhances this activity. The performance of our determinant suppliers is evaluated by EcoVadis.

The sustainability performance of BorsodChem is also subject to due diligence annually. The assessment of EcoVadis conducted in 2020 indicates that a remarkable advancement was made in the direction of a sustainable supply chain. Our score moved up to 70 points from 40 points indicating that the sustainability aspect is increasingly incorporated in our procurements. We aim at further improving it through the development areas revealed with the assistance of EcoVadis.







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#### SUSTAINABLE PROCUREMENT IS INCREASINGLY MORE IMPORTANT WITHIN THE RANGE OF INDUSTRIAL COMPANIES, BUT WHAT IS THE **EXACT MEANING OF THIS CONCEPT?**

The sustainable procurement of companies has two mainstays: development of their own processes and practices as well as sustainable supply chain. The sustainable endeavours in procurement mean social responsibility, risk management and cost reduction at the same time, thus they contribute to the Company and its products' judgement by the market and the society and profitability as value creators.

Approaching the issue from another aspect, sustainable procurement means for us that we also consider sustainable aspects in our procurement decisions motivating our suppliers for sustainable development.

#### IN WHAT INITIATIONS AND IN WHAT FORM **DOES BORSODCHEM PARTICIPATE IN THE** FIELD OF SUSTAINABLE PROCUREMENT?

The most comprehensive initiative, in which BorsodChem actively participates as a member of the Wanhua Group is the "Together for Sustainability (TfS)" program established by leading chemical companies with 31 members today. TfS contributes to the sustainable development of the chemical

Éva Dargainé Gróf

131-4B338

Senior Manager Auxiliary Raw Materials

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supply chain by evaluations, audits and sharing good practices. TfS selected EcoVadis as a partner for the online evaluation of companies with CSR (Corporate Social Responsibility) criteria. Independent auditors approved by TfS perform the potential onsite audits. The performance of TfS objectives compiled from the members' objectives is traceable.

#### WHAT ARE OUR MAJOR RESULTS AND WHERE **DO WE NEED TO FURTHER DEVELOP?**

The sustainability performance of BorsodChem is evaluated by EcoVadis year by year. The latest result of Procurement as a partial field considerably surpassed the previous evaluation result, since this year we could obtain 70 points. We were delighted to see this spectacular improvement and we believe it justifies that we are on the right track.

Procurement must keep and possibly increase the achieved level so that BorsodChem could keep its distinguished place (EcoVadis Platinum rating) among chemical companies and we must go on.

The publication of BorsodChem Zrt.'s Supplier Code of Conduct was a milestone elaborated specifically for independent suppliers and supplier relations, which help our current and future suppliers become familiar with our ethical values and expectations.





# ECOVADIS, TfS

Corporate companies shall be collectively responsible for laying the foundations for a sustainable future that includes all elements of the supply chain. As one of the largest companies in Hungary and as a member of the global Wanhua Group, we are committed to sustainable and responsible operation. In the following, we will demonstrate those complex evaluation systems, by which we examine our social responsibility endeavours and technologies to improve our sustainability performance.

#### Platinum classification for the sustainability performance of BorsodChem

Based on the latest survey of the EcoVadis international rating organisation, we won the EcoVadis Platinum medal for the first time for our sustainability and CSR activities conducted in 2020. On the grounds of our results achieved in sustainable development over the years, we fall into the best 1% of companies operating in the chemical industry and related sectors that participate in the evaluation.

EcoVadis evaluates how a company integrated the basic principles of sustainability and corporate social responsibility into its business and management system also including the companies in the global supply chains. The analysis evaluates the company's performance in the issues of Environment, Labour & Human Rights, Ethics and Sustainable Procurement and discloses both strengths and improvement areas. The examined 21 criteria are based on international sustainability standards such as the Ten Principles of UN Global Compact, the International Labour Organisation (ILO) agreements, the Global Reporting Initiative standards, the ISO 26000 standard, the CERES schedule and the UN business and human rights principles or termed as the Ruggie frame system.

Increasing the score again is due to the efforts made to integrate and develop policies, our UNGC (United Nations Global Compact) and TfS (Together for Sustainability) memberships and the integration and development of sustainability into procurement principles. Endeavours devoted to environmental protection was commended and the assessment also appreciates the ethical conduct and respect for human rights of the company.

Sustainability must prevail in the operation of BorsodChem in all areas, and the EcoVadis result reliably indicates where we stand from that aspect. We should use the well-established rating system to explore details about our strengths and weaknesses, and to identify areas where we can maybe still improve.

Good compliance with the EcoVadis assessment is important to BorsodChem showing the company's commitment to the customers, key stakeholders and employees as a responsible and high quality supplier, partner and employer in Hungary, and year by year is committed to development and improvement.



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#### BORSODCHEM ZRT (GROUP)

has been awarded a Platinum medal

as a recognition of their EcoVadis Rating

- JANUARY 2021-



#### **Together for Sustainability**

On February 21, 2019, our parent company, Wanhua Chemical joined the Together for Sustainability initiative, thus it became the first official Asian member company. The joint initiation of TfS chemical companies is to establish a sustainable supply chain. The initiative set up a standard approach in the evaluation and auditing of suppliers and the enhancement of their sustainability performance in the chemical industry. The evaluation process of TfS is based on international sustainability standards and ensures feedback from CSR experts both for the members and suppliers. TfS chose EcoVadis as its partner and service provider for the evaluation of suppliers based on identical aspects. The EcoVadis examinations are online questionnaires analysed and evaluated by specialists.

## **Ifs sustainability audits**

The TfS audit is the onsite examination of the Company's sustainability practices executed by independent auditing organisations. The examined area is generally a production area with one or more sites such as a plant, warehouse building or office. The supplier's sustainability performance is examined in accordance with a predetermined set of criteria in the field of the management, environment, health and safety as well as employees and human rights.

#### Supply chain management campaign

In the past period, we have conducted two supply chain management campaigns where we conducted online supplier assessments with the help of EcoVadis, a service provider of business sustainability ratings to assess the sustainability and corporate social responsibility performance of our trading partners. We invited a total of 32 suppliers in the online assessment, from a range of strategic- and auxiliary raw material and packaging material suppliers. During the implementation of the TfS program, risk matrixes help us identify suppliers with a high sustainability risk potential based on country and product risks. Using this risk analysis and other evaluations, we audit raw material supplier sites on sustainability standards and initiate sustainability assessments through an external service provider. During the first campaign, we predominantly selected suppliers from Europe hence BorsodChem purchases its raw materials mainly from this area.

The Raw Material Procurement Department established three main categories from the raw material suppliers:

- strategic raw material,
- auxiliary material
- and the group of packaging material suppliers.

We selected the five largest suppliers out of our strategic raw material suppliers for the EcoVadis examination. We selected twenty out of our auxiliary suppliers and seven out of our packaging material suppliers for the evaluation. With this method, about 50% of the purchase value of raw materials was covered. With the selection of our strategic raw materials, we ensure that from a volume point of view also a significant part of our



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We used the result of our first campaign as an input, alongside our research and feedback to refine the 2020 supply chain assessment targets and to identify key issues and considerations for a supply chain sustainability approach.

The second campaign began in September 2020, in which Technical Goods & Services Procurement also took part. The two departments jointly invited a total of 52 suppliers that is almost double of those invited in 2019. 40% of the invited responded to our request. 27% of the respondents have participated in the program, therefore having an official evaluation (scorecard). 9% of the respondents received a scorecard during the campaign and the evaluation of 4% was in progress at the closedown of the campaign. It means that 7 suppliers undertook to give a response and undergo an evaluation to our invitation and received a scorecard after the analysis. Half of those invited to the campaign either failed to respond or refused to participate in the campaign. 8% of related parties commenced the evaluation process but failed to complete it.

#### Sustainability evaluation of BorsodChem

After the annual supplier evaluation of BorsodChem, in January 2020 we sent a questionnaire to our business partners for updating company data and general information related to the sustainability attitudes and activities of suppliers. 90 out of 117 companies filled out the questionnaire within the given time frame.

In 2020 we further improved our supplier evaluation system. Sustainability was even more highlighted. We raised the allocable score up to 30 from 25 in our 100-point evaluation and specified the sustainability aspects.

In 2021 we are planning a cooperation with our suppliers in the new area of sustainability, since BorsodChem wishes to expand the Scope 1-2 GHG inventory calculation to Scope 3, which is realizable with the close cooperation of our partners. We are planning to expand the investigation of supplier practice with the inspection of compliance with association and assembly regulations.



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# HUMAN RIGHTS PROTECTION AND ETHICAL BUSINESS PRACTICE

We believe that company integrity, abiding by the law and the ethical commitment of our community is at least as important as our business performance. Operating in the spirit of sustainability, we are committed to observing the generally accepted ethical norms and rules of business life throughout our operations at all times.

The most important principles of our ethical operation are as follows:

- Respect of the individual and the basic human rights
- Confidentiality and data protection
- Transparency and compliance
- Fair business relations and competition
- Anti-corruption approach

Towards efficient and fair operations, we take action against all forms of corruption, we oblige all our employees to it and we also expect our partners to comply with our norms. It is our goal to prevent corruption linked to the Company in any way, thus contributing to clean economic operations thereby.

Corruption and other ethical cases are managed by Compliance & Internal Audit. An independent investigation is ensured by the fact that the organisation has a direct reporting obligation to the Chief Executive Officer. An internal regulatory background helps us prevent corruption including the Anti-Fraud Policy, the Whistleblowing Policy, the Code of Conduct and the **Supplier Code of Conduct** issued in 2020 with the CEO's approval. We shape our company culture and internal training based on these related to the issue.





**Code of Ethics** 

#### Ethical training

- new employees receive compulsory training,
- position and we repeat the training in certain years,
- this practice every year.

# Number of ethical claims (p 2019 5

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**Ethics Line Policy** 



**Anti-Fraud Policy** 

Number of employees who training	participated in ethical and	l anti-corrupt
Managerial/organisational level	2019	2020
Level N-0 (CEO, President)	0	1
Level N-1 <sup>57</sup>	2	5
Level N-2 <sup>58</sup>	13	18
Level N-3 <sup>59</sup>	67	70
Level N-4 <sup>60</sup>	181	249
Level N-5 <sup>61</sup>	143	2,217
Total	406	2,560

• in 2019 we held additional ethical training for employees in a managing

from 2020 in addition to new employees, we expanded the ethical trainings to the entire range of the Company's employees and we maintain

ocs)	
	2020
	5

Number of business partners who receive the Supplier Code of **Conduct (2020)** 

414

- <sup>58</sup> Directors, Deputy Directors, Managing Directors
- <sup>59</sup>Managers, Senior Managers
- <sup>60</sup> Officers, Deputy Managers, chief foremen
- <sup>61</sup> Employees not falling in the above categories







<sup>&</sup>lt;sup>57</sup> Vice Presidents, Chief Financial Officer, Chief Service Officer and Chief Operation Officer

BorsodChem undertakes to conduct itself as adequate for a socially legal entity towards state and governmental boards, the local authorities, the region, the media and the entire society and continuously supply reliable information for them.

Considerable fines and non- financial penalties	2017	2018	2019	2020
Total penalty and fine (HUF thousand)	0	200	237	0
Non-conformities closed down without fine	n.a.	n.a.	0	0
Number of non-conformities (pcs)	0	1	3	0
Number of incidents resolved through conflict management procedure	0	0	]	0

program was started by the global chemical industry pointing out the global importance of achieving the sustainability goals that also cover company and national frames. Over several decades of our development, the respect for human rights, lawful employment, work and technical safety, high-level commitment towards the protection of the natural environment as well as transparent, ethical and lawful operation has become an integral part of our core values.

BorsodChem realised that to achieve our sustainability goals we need to execute coordinated joint actions and our suppliers also need to actively cooperate with us. By supplier, we mean all natural or legal entities that provide any product or service to our Company either as a general or subcontractor. With respect to the above we framed the **Supplier Code of** Conduct in 2020.

BorsodChem expects the supplier and its related parties to follow the principles stipulated in the Supplier Code of Conduct and refrain from its intentional violation especially during transactions related to the procurements of BorsodChem.

The filing of lawsuits is completely foreseeable and subject to many factors. In a part of them, some BorsodChem interaction is conceivable, but in most cases, it is not about that. At BorsodChem operation in compliance with the laws has a key role, it is a significant factor that highly reduces the possibility that the lawsuits should occur in a large number.

BorsodChem is committed to sustainable and responsible operation and participates in the execution of the Responsible Care® program through conscious measures that go beyond legal regulations. The Responsible Care®

#### Contact details of BorsodChem Zrt.'s Whistleblowing Line:

Postal address: BorsodChem Zrt. Director Compliance & Internal Audit 3700 Kazincbarcika, Bolyai tér 1

E-mail: compliance@borsodchem.eu

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Telephone: (+36) 48 522-360





# FURTHER INFORMATION

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#### Our Acknowledgements

#### Family Friendly Workplace (2019)

The Family Friendly Company of the Year Award was announced for small, medium and large sized companies to encourage the corporate sector and promote the family-friendly good practices. Our Company won the title of Family friendly workplace at the competition (2019).

Further information in chapter entitled Responsibility for local communities.

#### BeneFit Prize (2019) - for Happy Employees – "Public Award Company" BeneFit

The All You Can Move SportPass (AYCM) together with Humánpolitika.com Public Benefit Association founded the BeneFit Prize in 2019, whose objective is to demonstrate and award the best practices of those companies who believe that the company health culture is the new social responsibility.

Further information in chapter entitled Responsibility for our employees.

#### EcoVadis Gold Medal (2019)

In 2019 we repeatedly won the EcoVadis Gold Medal for our sustainability activity. Our Company achieved further improvement in the survey and got into the best 2% of chemical companies assessed.

Further information in chapter entitled EcoVadis, TfS.

#### University of Miskolc Distinguished Sponsor Award (2019)

On September 6, 2019, at the Honorary Senate Meeting of the University of Miskolc, we received the Distinguished Sponsor Award of the University of Miskolc, which our Company played a key role in launching the chemical engineering course, establishment of the Confucius Institute, and the generous financial support of sports at the university.

Further information in chapter entitled Responsibility for succession.



BeneFit Prize Award Ceremony



Sponsor Award 2019



Family Friendly Workplace 2019 Award Ceremony

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BeneFit Prize Award 2019, Industrial Innovation Prize 2019, ME Distinguished

#### Industrial Innovation Prize (2019)

BorsodChem was awarded the Industrial Innovation Prize 2019 by of Ministry for Innovation and Technology for the complex development of the MDI manufacturing process, a polyurethane raw material.

Further information in chapter entitled R&D, innovation.

#### Factory of the Year Award (2019)

In addition to the Best production support processes and Energy efficiency category wins, BorsodChem was selected as the composite winner of the Factory of the Year competition in the category of over HUF 10 billion annual net sales revenue.

Further information in chapter entitled Our economic performance.

#### Loveable Workplaces Award (2020)

DreamJo.bs has announced the Lovable Workplaces competition for the fourth time in which a record number of nearly 1,100 entries were received in 2020 and 26 different industrial sectors. The acknowledgement was awarded to the best 150 small and medium sized enterprises, 35 corporate companies and 10 companies from Transylvania. BorsodChem is "placed on the map of Loveable" Workplaces" and we are among the most attractive workplaces of Hungary.

Further information in chapter entitled Responsibility for our employees.

#### **EcoVadis Platinum Medal (2020)**

For our sustainability activities in 2020, surpassing the previous year's performance we received the platinum medal for the first time in the international rating system of EcoVadis. In the latest survey, our Company achieved further improvement and is now in the top 1% among chemical companies assessed by the rating agency EcoVadis.

Further information in chapter entitled Ecovadis, TfS.











# **LIST OF ABBREVIATIONS**

ADR (Accord Dangereux Routier): European Agreement on the Road Transportation of Hazardous Goods.

**AOX:** Adsorbable Organically Bound Halogens

**AP:** Acidification potential: Acidification relative to sulphur dioxide (SO2).

**BAT:** Best Available Technology/Techniques: The technology that can be used in case of acceptable technical and economic conditions and it is the most efficient in terms of protecting the entire environment.

**BEM:** The Biological Exposition Measures monitors the health status of employees in terms of the chemical safety of workplaces.

**BOI:** Biological oxygen demand: it shows the amount of biologically degredable organic matter content of water. By its measurement an indirect conclusion can be made as regards organic pollution of water.

**CLP:** EU Decree on the classification, labelling and packaging of substances and blends.

**CO2e:** Carbon dioxide equivalent: one tonne of CO2 or equivalent greenhouse gas in a volume complying with global climate change potential.

**COD:** Chemical oxigene demand

CWW BAT (Common Waste Water and Waste Gas Best Available **Technology):** A principle summarising the best available technological solutions related to common waste water and waste gas treatment.

EBITDA (Earnings before interest, taxes, depreciation and amortization): It shows the relevant business efficiency of companies.

EHS (Environment, Health, Safety): Health Protection, Safety and Environmental Protection

**EMS:** Environmental Management System

**EnMS:** Energy Management System

**EP: Eutrophication Potential:** The eutrophication is caused by the high concentration of the macro nutrient, primarily nitrogen (N) and phoshor (P). The accumulation of nutrients may lead to the unwanted change of species composition and the generation of increased biomass both in water and land ecosystems. In addition, the high nutrient concentration also endangers the drinkability of water.

ESS (Employee Self Service): Corporate company self service portal.

**EU-ETS (European Union Emission Trading System):** Greenhouse gas emisssion trading system of the European Union.

**EVA:** Ethylene-vinyl acetate

**GDP:** Gross Domestic Product: the value of total goods produced at the given area during the given time devoted for final usage.

**GHG:** Greenhouse gases: gases that absorb infrared wavelength light causing global warming.

**GRI:** Global Reporting Initiative: The objective of the international not-for-profit organisation operating with its seat in Amsterdam is to prepare and develop an internationally approved sustainability standard.

**GWP:** Global Warming Potential: It is used for quantifying the greenhouse effect of gases. Its value is determined relative to carbon dioxide of identical mass generally for a 100-year time interval.

HPM (High Performance Material): Materials with outstanding technical properties.

HYCO4: Hydrogen and Carbon Monoxide Plant

IED (Industrial Emissions Directive): Directive 2010/75/EU on industrial emission

**Intermodal transportation:** A combined transportation during which the majority of the shipping distance is covered by rail, inland navigation or short sea navigation and the road transportation distance is the shortest possible.

**IPPC (Integrated Pollution Prevention and Control):** Directive 96/61/EC on the integrated prevention and reduction of pollution

**ISO 14001**: An international standard that prescribes the regulations, by which companies can develop their operations with an efficient environmental aspect. It serves as a guidance to development of the environmental management system.

**ISO 50001:** The international standard includes the requirements needed for the establishment, maintenance and development of energy management system.

**Isocyanates:** An organic compound containing an isocyanate group. Several isocyanate groups may occur in the isocyanates, compounds containing two isocyanate groups are called di-isocyanate. Di-isocyanates are used for producing polyurethanes jointly with polyhydric alcohols.

**KPI (Key Performance Indicator):** Key performance indicators

**kt:** Kilotonne

**LCA:** Life-Cycle Assesment

LEAN: A company organising system with the aim of the most efficient operation of the company.

**LLCA:** Life-Cycle Cost Assesment

**MDI:** Methylene diphenyl diisocyanate

**MEBIR:** Occupational Health Protection and Safety Management System

Natura 2000: A joint European ecological network established by the European Union that ensures the conservation, maintenance and recovery of the biological diversity through the protection of natural living environment types, wild animals and plant types of community importance.

NOx: Nitrogen oxides: summary name of compounds made up of nitrogen and oxygen in various proportion. It has a determinant role in the development of photochemical smog and it is likely to contribute to thinning of the ozone layer.

**NVH (Noise, Vibration, Harshness):** Noise, vibration and harshness (disturbing effect)

**ODCB:** Ortho-dichlorobenzene

**ODP (Ozone Depletion Potential):** Ozone layer destroying impact.

**OHSAS 18001:** An international standard that subsumes safety liabilities and tasks prescribed for companies in the field of work-, health- and fire protection.

PDCA (Plan-Do-Check-Act): A recurring, four-step management method. Planning, action, check and intervention.

**PIR:** Polyisocyanurate

**POCP:** Photochemical Ozone Creation Potential

**PU:** Polyurethane: collection name of plastics generated by the copolimerisation of di- and polyisocyanate and di- and polyol units.

**PVC:** Polyvynil chloride

**QMS:** Quality Management System

**R&D:** Research and development

**REACH:** Decree of the European Parliament and Council approved in 2006 on the registration, evaluation, authorisation and restriction of chemicals.

**Recultivation:** Recultivation or land reconstruction, making an area suitable for recycling.

**SA 8000:** An international standard aimed for companies to apply socially acceptable workplace practices.

Safety data sheet (SDS): It provides information for users concerning the effects and safe use of chemicals and hazardous goods. Its content requirements are regulated by REACH.

SBR (Sequencing Batch Reactors): Batch feed wastewater treatment process with activated sludge.

Scope 1 emission: Direct GHG emission based on the definition applied in the international Greenhouse Gas Protocol

Scope 2 emission: Indirect GHG emission related to the energy purchased by us based on the definiton applied in the international Greenhouse Gas Protocol.

Scope 3 emission: GHG emission not related to our activities, but to the utilisation of our products and the emissions of our suppliers based on the defintion applied in the international Greenhouse Gas Protocol.

SDG (Sustainable Development Goals): Sustainable Development Goals. Goals accepted at the Sustainable Development Summit of the United Nations held in 2015 in Paris based on the Millenium Development Goals.

**TDI:** Toluene-diisocyanate

TDS: Technical Data Sheet

**TOC:** Total Organic Carbon: total organically bound carbon content occurring in water.

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**TPU:** Thermoplastic polyurethane

**TSS:** Total Suspended Solids: an index number used to determine water quality.

**UN Global Compact:** UN Global Compact, the world's largest corporate social responsibility initiative established by the UN.

**VCM:** Vinyl chloride monomer

**VOC:** Volatile Organic Compounds: natural or synthetic organic compounds, whose steam pressure is high enough to evaporate under normal conditions.

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102-46	Defining report content and topic boundaries	2016	18, 111		
102-47	List of material topics	2016	19		
102-48	Restatement of information	2016	18-19, 6-7		
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102-51	Date of most recent report	2016	18		
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103-202	Management approach - Market presence	2016	69-71, 74-75, 8
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202-2	Proportion of senior management hired from the local community	2016	71
103-203	Management approach - Indirect economic impacts	2016	39
203-2	Significant indirect economic impacts	2016	39, 89-90
103-205	Management approach - Anti-corruption	2016	101
205-2	Communication and training about anti-corruption policies and procedures	2016	101
103-206	Management approach - Anti-competitive bahavior	2016	40, 101
206-1	"Legal actions for anti-competitive behavior, anti-trust, and monopoly practices"	2016	40, 101



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301-1	Materials used by weight or volume	2016	96
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103-303	Management approach - Water and effluents	2016	54-55
303-1	Interactions with water as a shared resource	2018	54-55
303-2	Management of water discharge-related impacts	2018	56
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103-304	Management approach - Biodiversity	2016	63-64
304-1	"Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas"	2016	63-64
103-305	Management approach - Emissions	2016	57-58
305-4	GHG emissions intensity	2016	59
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	2016	58

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306-1	I disclosures Management approach - Waste Waste generation and significant waste-related impacts	2016	61
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306-2	Management of significant waste-related impacts	2020	61-62
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103-307	Management approach - Environmental complience	2016	51
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401-1	New employee hires and employee turnover	2016	72, 74
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103-403	Management approach - Occupational health and safety	2016	82-83
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403-2	Hazard identification, risk assessment, and incident investigation	2018	82
403-3	Occupational health services	2018	83



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Social disclos	sures		
403-4	Worker participation, consultation, and communication on occupational health and safety	2018	83
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403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	2018	87
403-8	Workers covered by an occupational health and safety management system	2018	83
403-9	Work-related injuries	2018	82
403-10	Work-related ill health	2018	82
103-404	Management approach - Training and education	2016	80
404-1	Average hours of training per year per employee	2016	80
404-3	Percentage of employees receiving regular performance and career development reviews	2016	75
103-405	Management approach - Diversity and equal opportunity	2016	77
405-1	Diversity of governance bodies and employees	2016	77-78
405-2	Ratio of basic salary and remuneration of women to men	2016	74
103-407	Management approach - Freedom of association and collective bargaining	2016	71
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	2016	95, 101

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103-413	Management approach - Local communities	2016	21, 89-90
413-1	Operations with local community engagement, impact assessments, and development programs	2016	90
103-416	Management approach - Customer health and safety	2016	77
416-1	Assessment of the health and safety impacts of product and services	2016	87
103-418	Management approach - Customer privacy	2016	88
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	2016	88
103-419	Management approach - Socioeconomic compliance	2016	101
419-1	Non-compliance with laws and regulations in the social and economic area	2016	101



# **GRI PRINCIPLES**

In preparing this Report, we have taken into account the ten principles set out by the GRI:

Stakeholder Inclusiveness: BorsodChem's stakeholders were surveyed and involved in the preparation of the materiality assessment, we took into account the issues identified based on the communication with them in the last During the preparation of the Sustainability report BorsodChem considers the opinion of its stakeholdres, like yours. two years, and we provide an opportunity for direct feedback on the Report. Should you have any question regarding the Report or wish to share your opinion with us, please send an e-mail to the Sustainability Context: In connection with our EcoVadis evaluation and a benchmark study prepared with the help of following address:

our consultants, we also examined the issues relevant to the Report.

Materiality: The selection of material topics was identified during a materiality assessment developed in accordance with the GRI principles.

**Completeness:** All of the topics identified as material are covered in our Report.

Accuracy: The displayed data is based on measurements, their source can be checked and traced.

We would like to thank you for your valueable opinion which contributes to the improvement of our operation! Balance: Positive and negative changes are presented in annual breakdown, and the reasons for the changes are also described.

Clarity: In presenting the information, we keep in mind the prior knowledge and needs of our stakeholders and strive to use clear wording.

**Comparability:** Our reports are designed to be comparable with each other and with our industry counterparts, and data are presented chronologically when available.

**Reliability:** The sources of our presented data can be traced in all cases.

Timeliness: We issue our reports regularly, every two years, and we also examine the topicality of the report.



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# **READER'S FEEDBACK**

#### Dear Reader,

sustainability@borsodchem.eu

# **ASSURANCE STATEMENT**

#### **Assurance Statement**

#### Independent assurance statement for BorsodChem Zrt.'s Sustainability Report 2019-2020

#### To the management and stakeholders of BorsodChem Zrt.

denkstatt Hungary Kft. was commissioned by BorsodChem Zrt. (hereinafter referred to as "the Company") to provide independent third-party assurance for "BorsodChem Zrt. Sustainability Report 2019-2020" (hereinafter referred to as "the Report").

The assessment was conducted according to the criteria in AA1000AS (AA1000 Assurance Standard v3) to examine the application of the principles of inclusivity, materiality, responsiveness and impact, as described in the AA1000AP (AA1000 Assurance Principles), 2018. Our work also covered verifying the application of the requirements of the Global Reporting Initiative (GRI) Standards, core option.

denkstatt Hungary Kft. is part of denkstatt Group, an independent international consultancy. Our team of experts has extensive professional experience of assurance engagements related to non-financial information and sustainability management, meaning it is qualified to conduct this independent assurance engagement. denkstatt has implemented a certified quality and environmental management system which complies with the requirements of ISO 9001:2015 and ISO 14001:2015.

denkstatt is independent of the Company in every aspect and is not related to it in any way that would risk its independency or its impartiality. We have not performed any tasks or services for the Company that would lead to a conflict of interest. We did not participate in the preparation of any part of the Report.

This Assurance Statement was prepared specifically for the purpose detailed above, shall only be used as part of BorsodChem Zrt.'s 2019-2020 Sustainability Report and shall not be used or published for any other purposes or as part of any other documents.

The assurance process was conducted based on the Hungarian version of the Report, with the reporting Company taking responsibility that the contents of the Reports are the same in both languages. This Assurance Statement is a direct translation of the one issued in Hungarian.

#### **Management Responsibilities**

The management of BorsodChem Zrt. is responsible for the content and preparation of the Sustainability Report in accordance with the core option of GRI Standards. The final version of the Report was approved and signed by the CEO.

This responsibility includes the identification of stakeholders and material issues, as well as the formulation of sustainability commitments and the development and maintenance of the internal systems used for the management of sustainability performance that the content of the Report is derived from. Management responsibilities include data collection, the choice and application of methods in line with the requirements of the GRI Standards core option, as well as the communication of the report content.

#### Assurance provider's responsibilities

findings and conclusions regarding adherence to:

- the AA1000 Accountability Principles (2018), and
- the criteria in the GRI Standards core option.

Company, as well clarity for the stakeholders.

#### Scope of assurance, standards and criteria used

The aim of the moderate assurance engagement was to formulate an opinion whether the Report, covering the period of 1 Jan 2019 - 31 Dec 2020, has been prepared in accordance with the GRI Standards core option and the requirements of the AA1000 Series of Standards and whether it is free from material misstatements.

We used the criteria in AA1000AS v3 to perform a Type 2 engagement to assess the Company's adherence to the principles of AA1000AP (2018), as well to verify specifically chosen disclosures according to the requirements of the GRI Standards.

#### Methodology, approach, scope of work and limitations

We planned and carried out our work in order to obtain all evidence, information and explanations that we considered necessary to base our conclusions on. We completed the following activities in order to gather necessary evidence:

#### Management

- Denkstatt's responsibilities are to provide professional, third-party assurance for the Report resulting in
- We have also formulated recommendations to support the credibility of future sustainability reports of the

- gathering information regarding the Company's adherence to the principles of AA1000AP (2018) and GRI Standards core option by:
  - o conducting management interviews to verify management commitment to sustainability, as well as the identification of sustainability-related risks and impacts, and to verify that the Company has a long-term strategy to manage these;
  - o conducting interviews with data owners of chosen performance indicators (see below) from the following units: Operation, HR and Communication, HR Services, Operation Center, Labour Safety and Health Protection, Sustainability Group, Environmental Protection to assess the methods applied for the gathering and disclosure of information.
- the assessment of the GRI content index in line with the requirements of GRI Standards core option.

The following GRI disclosures were verified:

- 202-1: Ratios of standard entry level wage by gender compared to local minimum wage
- 302-3: Energy intensity
- 305-4: GHG emissions intensity
- 306-3: Waste generated
- 307-1: Non-compliance with environmental laws and regulations
- 403-2: Hazard identification, risk assessment, and incident investigation

covering data sources, methods of data collection and processing, as well as disclosure in line with the definitions of these indications by the GRI Standards.

Apart from the above, no other performance indicators were assessed as part of the engagement.

We are convinced that the evidence gathered is sufficient and serves as a solid basis to formulate our conclusions and recommendations.

#### Findings

#### Adherence to AA1000AP (2018)

#### Inclusivity

The Report refers to the last stakeholder engagement carried out by the Company in 2016 for the materiality assessment. The Report also describes the current methods and channels of communication with stakeholders. However, it does not provide a detailed introduction to the current issues of concern for the different stakeholder groups.

The COVID-19 pandemic situation has been limiting the possibilities of stakeholder communications; however, the Company strives to establish and maintain the channels and forums of effective communication and information flow.

#### Materiality

The list of material topics in the Report and thus the report content is based on the materiality analysis carried out in 2016. Based on our work, those material topics are still of great significance to the Company. However, without an updated materiality analysis, the Company is not in the position to determine if the importance and priority of the topics involved in the materiality assessment in 2016 has changed for the Company and its stakeholders or whether new topics have emerged since then.

#### Responsiveness

The Company has demonstrated proactive response to the modified needs of its workforce and local communities. Besides, it has also been paying attention to other impacts of company activities despite the fact that 2019 and 2020 posed challenges regarding stakeholder relations.

Due to the reasons discussed above for Inclusivity, it is difficult to assess whether the Company has been able to appropriately respond to the topics that are important to stakeholders. The effectiveness of the Company's responsiveness is however indicated by the small number of complaints from stakeholders during the reporting period.

#### Impact

The Company is aware of its environmental and social impacts, it monitors and manages these, integrating them into the Company's risk management system.

material topics.

The Company has identified that impacts related to its activities may be relevant outside of its production gates and thus places special emphasis on the sustainability of its supply chain. The Company has issued a Supplier Code of Conduct and the ethical requirements have been integrated into supplier contracts. The sustainability approach and performance of its suppliers is assessed through the Ecovadis platform and audits within the TfS framework.

The Company also focuses on circular economy, extended to its supply chain as well. It is aware of risks potentially endangering its future operations such as water shortage and thus is preparing for it by recycling water within its production activities.

#### Adherence to GRI principles

It was verified that the Report has been prepared considering GRI principles with the following finding:

Apart from the findings above regarding stakeholder engagement and materiality, the 2016 materiality analysis that the Report refers to does not completely adhere to the definition of materiality in the GRI Standards when assessing impacts on society and the environment.

According to the chosen GRI option, the Report presents the mandatory general disclosures, as well as the management approach disclosures and at least one topic-specific disclosure for each material topic, assuring that stakeholders can assess the sustainability performance of the Company based on these performance indicators and can make their decisions accordingly.

The Company applies a comprehensive database for its sustainability performance indicators. During the audit, the indicators chosen for verification were possible to trace back to their sources.

#### Conclusions

On the basis of our work, we found nothing to suggest that the information in the Report is inaccurate, contains material misstatements or that would question the reliability of the data and information disclosed.

Any errors or misstatements identified during the engagement were corrected in the final version of the Report. Most of the Verifier's recommendations were integrated into the content of the Report, and the Company intends to consider some of them in future reports.

During the assurance process, it was confirmed that the concept of sustainability has been integrated into company strategy and management decisions are made considering sustainability aspects.

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The Report describes the sustainability commitments of the Company with its medium- and long-term goals. However, no goals have been set up for energy efficiency and waste minimization while these are identified as

#### Recommendations

Our recommendations have been submitted to the Management of the Company in a separate Report. Our recommendations do not influence the conclusions of this Assurance Statement.

Ash

Judit Juranics Lead Auditor Budapest, 8 November 2021 denkstatt Hungary Kft.

