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### **ABOUT THE REPORT**





With our eighth sustainability report that reflects Kordsa's economic. environmental and social performance in 2021, we offer our stakeholders the opportunity to evaluate our impacts resulting from our activities and to evaluate our monitoring, improvement and measurement steps in managing them.

### The Scope and Topic **Boundaries**

The data in this report covers Kordsa's activities from January 1, 2021 to December 31, 2021. We also provide 2019 and 2020 data in order to monitor the trends. In addition to determining process of the report content, we explain the boundaries of the material topics in the Material Suatainability **Topics** section of this report.

The list of topics that we include on our materiality matrix are all relevant for our global operations with no limitations. This year the scope of our report has not changed. Externally our suppliers and contractors also have impacts regarding these topics. We provide details on management of impacts under **Selecting Suppliers** topic of this report. Regarding our economic performance, we provide figures representing the company, not as country specific.

### The Principles

This report is prepared in accordance with the **GRI Standards:** Core option. In the process of identifying our strategic sustainability topics, we took into consideration GRI's principles of materiality, stakeholder inclusiveness, sustainability context and completeness. Our report also covers the 10 principles of **UN Global Compact** that we signed in 2014. **UNGC Content Index** is located here.

With our targets on material topics, we directly address seven of **UN Sustainable Development Goals.** Our report also covers the **International Finance Corporation** IFC's Performance Standards on Environmental and Social Sustainability that were established to pinpoint, assess, and manage social and environmental risks in project finance. Additionally, we analyzed the relevant **SASB's (Sustainability Accounting Standards Board)** topics and KPI's of the sectors Kordsa serve and explained how we support our customers' sustainability targets.

### External Audit and Verification

Selected 2021 performance indicators are audited by PWC.

Scope 3 calculations are verified by **QSI.** 

### **Next Report**

We aim to publish the ninth of our sustainability reports, which we plan to prepare annually, in the first half of 2023.



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Text

Throughout the report, you can reach the relevant topic link by clicking on the bold and underlined texts.



All items in the table of contents page are linked to relevant headings. You can simply click on the heading in the contents page to directly go to the relevant topic in the report.



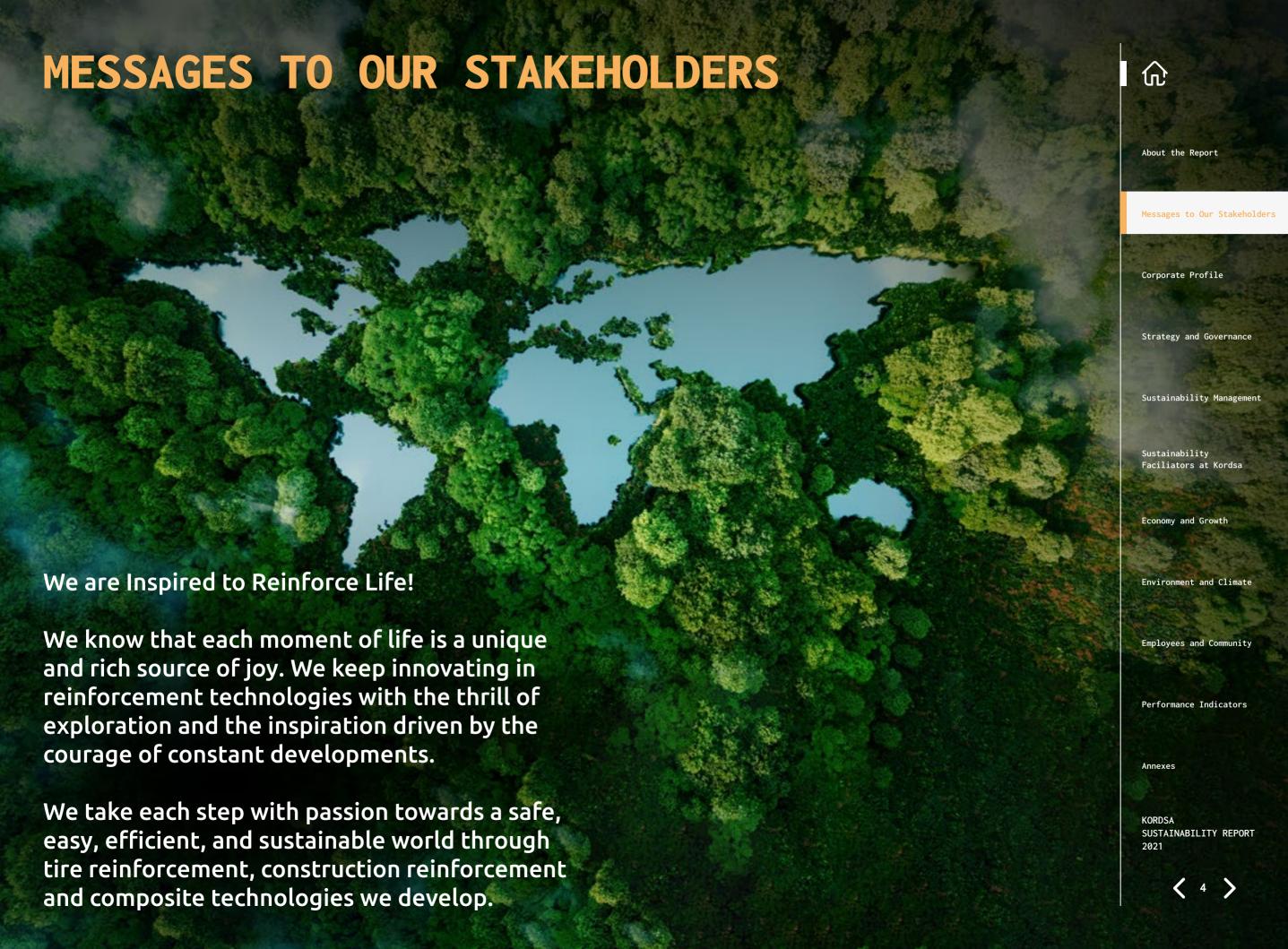
You can move forward and backward through the pages by clicking on the arrows at the right end of each page.



You can reach any part of the report by using the navigation pane on top of each page.



Related video on pages with play button you can watch the content.



### MESSAGE FROM OUR CHAIRMAN



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### Dear Distinguished Stakeholders,

**S**ince the first months of 2020, our priorities, habits and ways of doing business have changed rapidly. As a global company with a strong supply chain around the world, we maintained to produce and serve our customers uninterruptedly at Kordsa, while adapting to new developments. During this critical period where we feel the importance of sustainability more than ever, we continued to create tremendous value for our stakeholders with the vision of "Our passion is to strengthen life", by acting agile in every stage of our business thanks to our adaptability.

Despite the chip shortage in the automotive industry and difficulties experienced in the supply chain due to the COVID-19 pandemic, Kordsa increased its operational profitability by 70% and net profit by 360% compared to the previous year, thanks to exceptional capacity utilization rate and effective cost management in tire reinforcement. As Kordsa, our primary goals are to strengthen our position in construction reinforcement technologies and become one of the world's leading advanced materials companies through the product portfolio growth with investments in composite technologies, while maintaining our global leadership in tire reinforcement technologies.

We see sustainability as an integral part of our purpose and strategy. We work with our stakeholders to ensure social and environmental sustainability throughout our entire value chain.

Kordsa reinforces one out of every three automobile tires and two out of every three aircraft tires in the world. With recent investments in composite materials. Kordsa came to a position to strengthen aircraft fuselages, wings, and engines. Composite, the advanced technology material of the future, thanks to its lighter, durable, and robust features, contributes significantly to sustainable mobility as it reduces carbon emissions with low fuel consumption.

At Kordsa, we increase our share in sustainable mobility by supplying composite materials to non-aviation sectors. Three years ago, while the share of non-aviation products in our composite materials product portfolio was 30 percent, we have expanded this share to 53% by expanding into the automotive and green energy sectors.

We are a signatory to the UN Global Compact since 2014, which includes 10 principles consisting of fundamental responsibilities in human rights, labor, environment, and anti-corruption. In 2015, we shared with you, our esteemed stakeholders, our first performance report on sustainability impacts. In 2016, Kordsa became a part of the BIST Sustainability Index, comprising of companies with the highest corporate sustainability performances. Since then, Kordsa has received various prestigious reporting and rating awards and taken its place among sustainability leaders in our country and globally.

With awareness of climate change turning into a crisis, Kordsa aims to reach net-zero emissions by 2050, with its commitment to the Science-Based Targets Initiative to help limit global warming to 1.5°C.

Kordsa is one of the most important supporters of Sabancı Holding's vision, "We unite Turkey and the world for a sustainable life with leading enterprises," and has a robust technological infrastructure and deep-rooted innovation culture which is necessary for sustainability. R&D, innovation and digital transformation play a facilitating role in achieving our sustainability goals. We are carrying out our sustainability efforts by taking into consideration technology and digitalization with our industry 4.0 practices.

We develop innovative, environmentally friendly technologies with a focus on human and the environment in all our business lines through studies of our R&D centers, which are responsible for creating innovations. For sustainable mobility, while we use recycled nylon yarns in tire reinforcement technologies, we also produce reinforcement materials that reduce fuel consumption by making vehicles lighter in composite technologies. Furthermore, in construction reinforcement technologies, we develop innovative products to strengthen concrete structures in order to increase durability. In this direction, sustainable chemicals, bio-based polymers and polymer recycling technologies took place among most important topics on our innovation agenda in 2021.

We see sustainability as an integral part of our purpose and strategy. We work with our suppliers and customers to ensure social and environmental sustainability throughout our entire value chain, from purchasing raw materials to delivering our products to customers. In 2021, we took important actions about diversity and inclusivity in company management and protection of human rights in our value chains and suppliers.

I would like to thank all our esteemed stakeholders with whom we have collaborated in Kordsa's journey of reinforcing life and our industrious employees who contributed massively to our success despite a challenging year.

Kind Regards,

**CEVDET ALEMDAR** 

Chairman

### MESSAGE FROM OUR CEO



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Dear Stakeholders,

We recently left behind a challenging period full of uncertainties which nevertheless allowed us to broaden our understanding that sustainability affects every aspect of life. In 2021, we ensured business continuity at Kordsa by combining the influence and strength of operating globally with the adaptability of our local operations. As a result, we continued profitable growth in all regions with more than 4,800 employees at our 12 facilities.

Due to our multicultural structure, digital transformation investments and product innovations developed at our R&D centers we were able to quickly adapt to changes. This year we continued to create value for our stakeholders through our vision "Inspired to Reinforce Life".

At Kordsa, we see R&D, innovation, technology and digitalization as facilitators of our goals, especially regarding sustainable consumption and production. Developing our sustainable product portfolio is one of the primary goals of our R&D centers. For instance, in 2021, we produced cord fabrics from recycled nylon yarn that our business partners utilized in tire reinforcement technologies. These nylon yarns

66,

We see R&D, innovation, technology and digitalization as facilitators of our goals, especially regarding sustainable consumption and production. This year we continued to create value for our stakeholders through our vision "Inspired to Reinforce Life".

were certified by the Global Recycle Standard (GRS), which undertakes the registration of the recycled products.

While the world is digitizing rapidly, we have made the "Digital Transformation and Industry 4.0" concepts part of our corporate culture and continued our efforts to digitalize the production, processes, and methods we have developed in every company we operate worldwide. We focused on automation, data collection, data security, and sensor technologies. In all our facilities and processes, we have established new generation technologies, integrations, and data collection systems that evaluate with analytical intelligence to make smarter decisions.

When we started to see the adverse effects of the global climate crisis in 2016 from that year onwards we have been disclosing our environmental data through CDP's Climate Change and Water Security Programs. As a result, in the 2021 reports, we once again increased our score in the water program, and we were one of only three Turkish companies to participate in the prestigious Global A list, comprising of only 118 companies worldwide. In the 2021 CDP Climate Change Program, we were awarded an "A-" score the same score we received the previous year. Additionally, we were awarded an "A" score in 2021 by the CDP Supplier Engagement Rating, which evaluates the extent to which companies include their suppliers in the fight against climate change. In 2021, we continued to assess the sustainability performances of our suppliers, who are an essential attribute to our value chain; together we focused on potential cooperation opportunities to achieve Kordsa's 2050 sustainability goals.

We develop energy efficiency and water-saving projects in our production processes and adhere to detailed roadmaps to reduce our emissions. We aim to reduce waste and water consumption by 50% before 2030, reduce waste and carbon emissions by 100% before 2050 and increase renewable energy usage rates in all our facilities.

In 2021, we continued our operations in the circular economy. We work to reduce waste by reusing our wastes in our production processes to create economic value. By reusing approximately 2.5 million units of our materials from all our facilities, we have prevented the creation of wastes and saved approximately 4.2 million dollars.

In 2021, we designed programs to develop a culture of diversity and inclusion for our employees, who we consider to be our most valuable assets following our achievements which reinforce life. We create inclusive working environments where individual differences are respected, and we support our employees' career development. We contribute to social sustainability with the participation of our employees in social projects that support gender equality and education in all the regions in which we operate. We act with the firm belief that multiculturalism creates new ideas by triggering creativity and enhancing performance.

After two years, our Brazilian production facility was once again included in Brazil's "Best Place to Work" list in 2021 while also winning the title for the best work environment for a Brazilian textile company.

I would like to thank our reinforcers who work non-stop to create a better future and our outstanding business partners, customers, and shareholders for their unwavering support.

Sincerely

İBRAHİM ÖZGÜR YILDIRIM

CEO



### CORPORATE PROFILE



As Kordsa, we develop innovative and valueadded reinforcement technologies for a safer, more efficient, and sustainable world. With our tire reinforcement technologies, we reinforce one in every three car tires and two in every three aircraft tires manufactured in the world today. Through our composite technologies we reinforce the wings, bodies, cabin interiors and engines of aircrafts while reinforcing airfields by means of our construction reinforcement technologies. We carry the field that we reinforced with our vision, "We are inspired to reinforce life" to aerospace.

We reduce fuel consumption by reducing rolling resistance of tires and helping to produce lightweight vehicles thanks to our reinforcement technologies. Moreover, we contribute to our stakeholders' sustainability goals by using recycled yarns in tire reinforcement technology. We provide construction reinforcement technologies for sustainable building projects. which stand out with their low carbon emission and durability features.

AWARDS and ACHIEVEMENTS

### Ford Otosan Awards Kordsa

The new technology Composite Spring Project that reduces the weight in truck chassis system, developed in Kordsa and Ford Otosan cooperation won the 'Engineering Achievement" award in Ford Otosan's Product Developments of The Year Awards



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### KORDSA FACTS AND FIGURES

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TL 7.9 Billion

**GLOBAL FOOTPRINT** 

4,844

EMPLOYEES (INCLUDING SUB-CONTRACTORS)

**48** YEARS

259,536 Hours

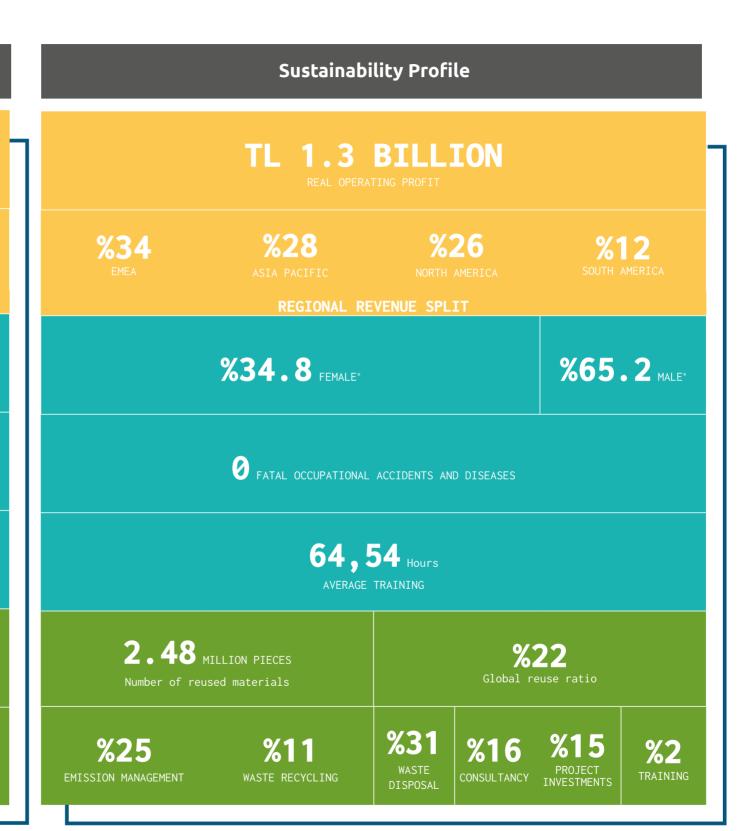
usp 1,575,000

investments and expenditures

**ECONOMIC** 

SOCIAL

**ENVIRONMENTAL** 



<sup>\*</sup> Data represents white-collar employees. Among all employees, the rate of female employees are 14.2%.



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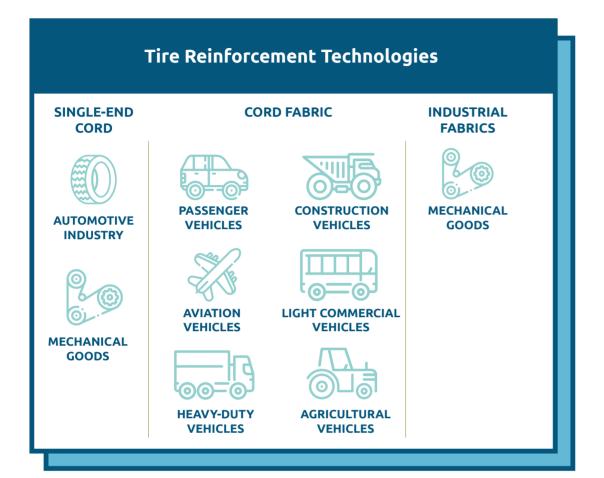
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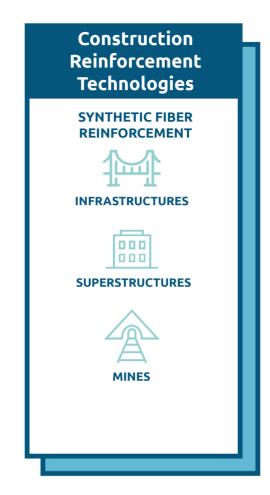




# PRODUCTS, INDUSTRIES, MARKETS











In the tire reinforcement industry, we manufacture cord fabric and single end cord products that provide flexibility and durability to vehicle tires. Our technology leadership, experience in reinforcement technologies and R&D works along with "The Reinforcer" title position us as the strategic partner of leading tire manufacturers.

In composite technologies, we produce innovative by-products and practices for aviation, automotive, maritime and rail systems industries. In our plants in Turkey and USA, we provide design, analysis, material library, prototype production services and develop fabric, resin and prepreg in line with our customers' needs.

In construction industry, we stand out with our innovative macro and micro synthetic fiber reinforcements that provide ease of use, fast applicability, less labor work, energy efficiency, high concrete density, longlasting durability, and low carbon emission in concrete reinforcement applications for both infrastructure and superstructure concrete reinforcement projects.



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# KORDSA IN THE WORLD



#### **NORTH AMERICA**

**BUSINESS AREAS** 

TURNOVER

TL 2,095 **MILLION** 

PRODUCTS

NY6.6, TCF, Composite Fabric, Honeycomb Core

#### **SOUTH AMERICA**

**BUSINESS AREAS** 

TURNOVER

**TL 937 MILLION** •••••

PRODUCTS

#### **EMEA**

**BUSINESS AREAS** Composite
Construction Reinforcement
R&D Centers

TURNOVER

TL 2,676 **MILLION** 

PRODUCTS

NY6.6, PET, SEC, TCF, Kratos, Prepreg, Composite Fabric, Sandwich Panel

#### **ASIA PACIFIC**

**BUSINESS AREAS** 

TURNOVER

TL 2,184 **MILLION** 

> PRODUCTS NY6.6, PET, TCF

### Composite

Tire Reinforcement

R&D Centers

#### **TURNOVER DISTRIBUTION BY REGIONS**

%26 America

%12

%34 EMEA

Asia Pacific

%28

Construction Reinforcement

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# 2021 ESG PERFORMANCE SCORECARD

Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2025 Target	Target Owner
13 signality	Renewable energy usage	Ratio of renewable energy used in total consumption (%)	12% (IREC)*	13%	14%	Chief Operation Officers (COOs)
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2030 / 2050 Target	Target Owner
13 CHAMPE	Reducing emissions (Base year: 2019)**	Scope 1&2 emissions (CO <sub>2</sub> e)	5% reduction	4.2%	46.2% / 100%	COOs
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2030 Target	Target Owner
6 MAGNAMINA	Reducing water withdrawal (Base year: 2019)**	Withdrawal per sales tonnage (m³/ton)	20% reduction	6.5%	50%	COOs and Sustainability Leaders
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2030 Target	Target Owner
12 ESPANSIBLE CONSIDER BY AND PRODUCTION	Reducing waste (Base year: 2018)**	Amount of total waste per sales tonnage (ton/ton)	12.2% increase	10%	50%	COOs and Sustainability Leaders
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2025 Target	Target Owner
17 PARTICIONS 10 HE ROAD  12 REPORTUR  12 REPORTUR  13 REPORTUR  14 REPORTUR  15 REPORTUR  16 REPORTUR  17 REPORTUR  18 RE	Sustainable Supply Chain Programme	Ratio of targeted suppliers on sustainability assessment (%)	73%	100%	Maintain 100%	Supply Chain
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2025 Target	Target Owner
	Improving accident ratio in operations	Number of fatal injuries High-consequence injuries Recordable injuries	Fatal injuries: 0 High-consequence injuries: 0 Recordable injuries: 6	Zero accident	Zero accident	COOs and Sustainability Leaders
8 DESENTI WORK AND EDONOME GROWTH	Reducing complaints on human rights violations	Number of complaints on human rights violations	Zero complaint	Zero complaint	Zero complaint	Human Resources
•••	Increasing employee satisfaction	Rate of employee satisfaction (%)	62%	65% and over	65% and over	Human Resources
	Continuing employee development trainings	Sabancı of New Generation competencies	Ratio of occupational and personal development trainings reached 70%.	Continue trainings to complete the competencies	Continuous development	Human Resources
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2025 Target	Target Owner
5 SONEY	Increasing women employment (Office staff)	Ratio of women employees (%)	34.8%	38.3%	45%	Human Resources
Related SDG	Explanation of Target	Indicator	2021 Performance	2022 Target	2025 Target	Target Owner
4 CONCETTON	Increasing number of teachers attending ÖRAV training	Number of teachers trained annually	226 teachers "Interactive Course Design in Online Education Training"	250 Teachers (Duration: 10 week ends)	In progress	Corporate Communications and Sustainability



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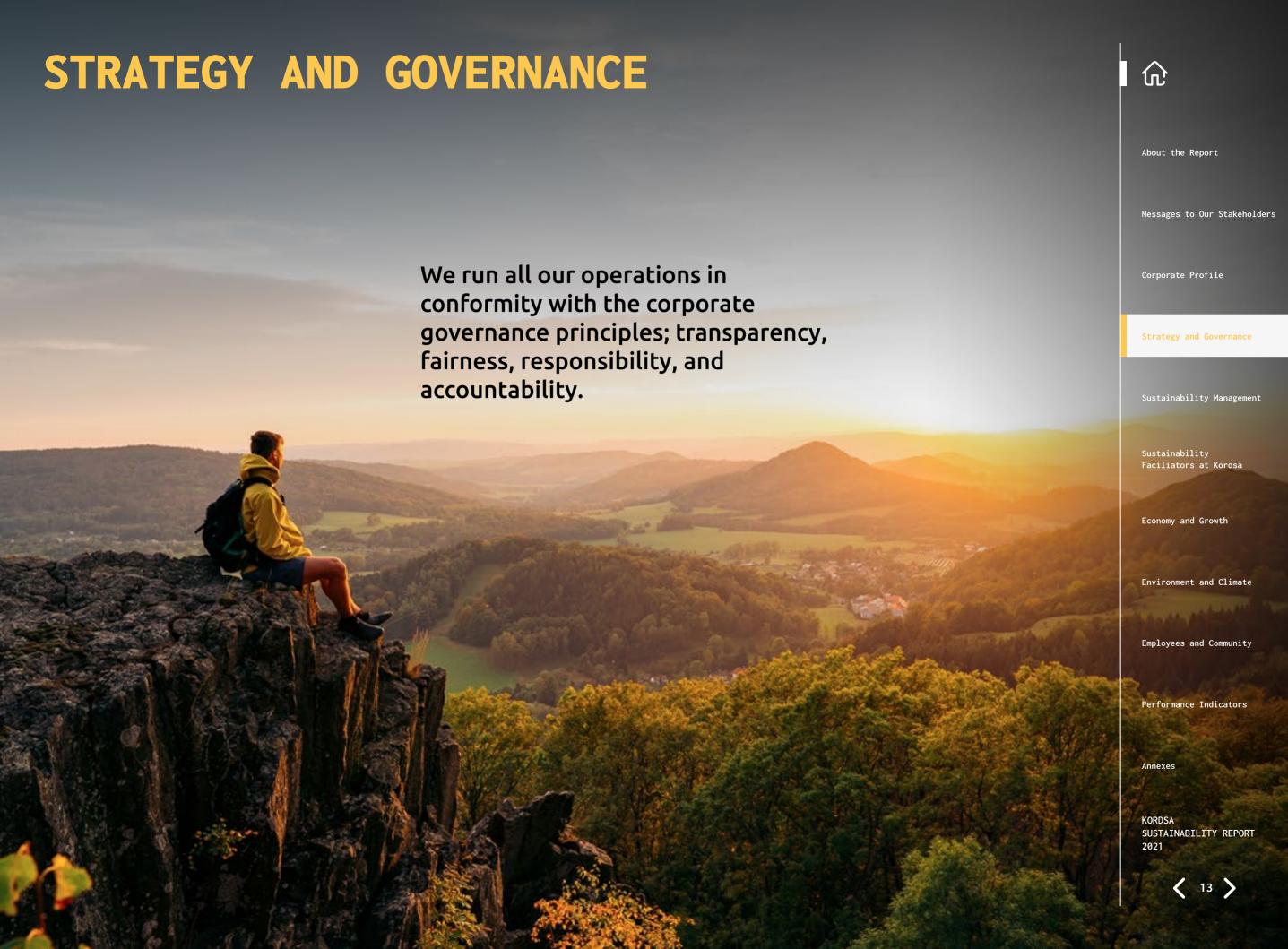
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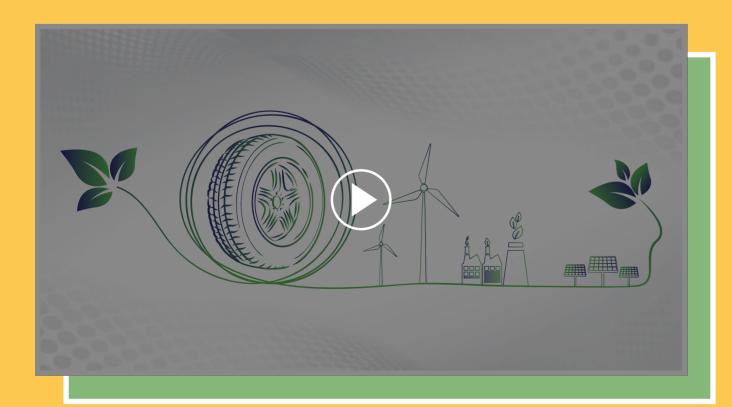


### STRATEGY AND GOVERNANCE



In every geography we operate, we execute all our operations in compliance with regulations and corporate ethical values, and with our social and environmental responsibility awareness that we disseminate among our employees.

In the basis of our sustainability understanding, there lies creating sustainable value for all our stakeholders by using natural resources responsibly. We mean to achieve this by growing in our main business lines through our technology investments to create economic value for our shareholders and investors and ensuring continuous development of our talented human resources.



#### **AWARDS and ACHIEVEMENTS**

### **BIST Sustainability Index**

Kordsa, among the companies with the highest corporate sustainability performance, saved its place in Istanbul Stock Exchange Sustainability Index for the 6th time.



### We Passed the Pirelli Inspections with Success!

Our Kordsa İzmit Factory passed Pirelli's employee and human rights, ethics, OHS, environment and sustainable supply chain inspections with success.

### **INVESTOR VIEW**

Within our emerging Europe listed equity one of the top tier performers in terms of sustainability management. Focus on specific targets that cover environmental, social and economic performance are underpinned by a sustainabilityintegrated governance structure. Our engagement with Kordsa over the past years has delivered positive changes in its sustainability management proving that the company is open and receptive to stakeholders feedback.



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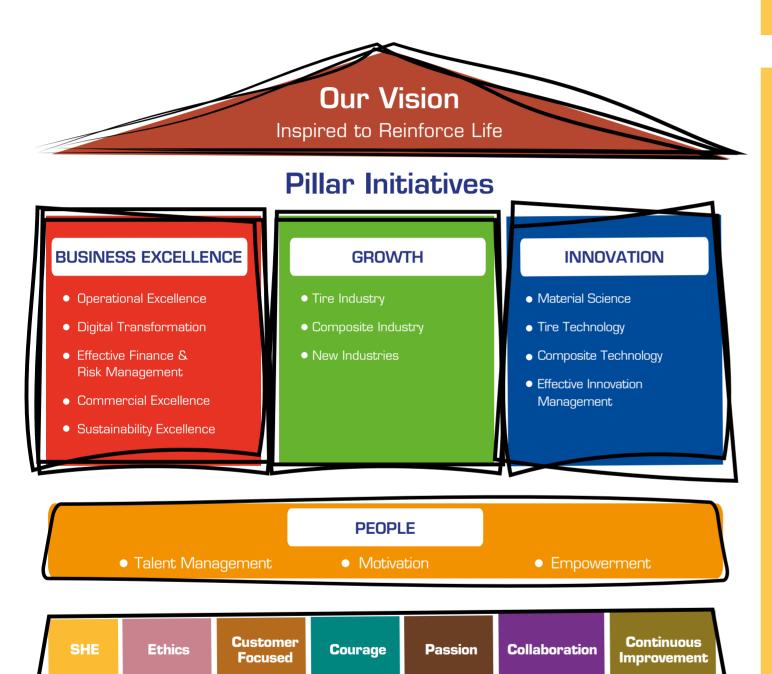
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### KORDSA STRATEGY HOUSE





**MISSION** 

Deliver high value-added reinforcement solutions globally.

#### **VALUES**

#### Safety, Health and Environment

We work carefully, disciplined, and programmed. Following SHE rules, we create safe working areas.

#### **Ethics**

We work with an honest and transparent approach and comply with Ethical Rules and Policies.

#### **Customer Focused**

We know the demands and expectations of our customers, we work in line with these demands and expectations, and provide competitive advantage.

### Courage

We express our ideas freely, take calculated risks and are not afraid to make mistakes. We take responsibility and act by taking initiative.

#### **Passion**

We approach every work we do with enthusiasm, excitement, and determination by believing wholeheartedly; we prompt our whole environment with our energy.

#### Collaboration

We create the environments to ensure the participation of all relevant stakeholders, encourage them, value different ideas and provide the highest benefit through multiple collaborations.

#### **Continuous Improvement**

We question ourselves and our work with a positive curiosity excited from innovation. To be always better, we learn from our past experiences, develop with our vision of the future, and become the pioneer of change. About the Report

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# **ALIGNMENT OF STRATEGIES**



Our vision, strategic initiatives, and values that we updated in 2019, match with our material topics that shape our sustainability strategy. The general approach for the process of determining the below listed material sustainability topics are given in the following section.

Pillar Initiatives	Material Sustainability Topics	Values
	Supply Chain Management All Environmental Topics	Customer Focused
	Sustainable Growth	
Business Excellence	Raw and Other Materials Management All Environmental Topics	Continuous Improvement
Growth	Employment	Соигаде
Innovation	Equal Opportunities and Diversity  Training and Development	Passion
People	Human Rights Community Development	Collaboration
	Occupational Health and Safety Energy Management Emissions Management Waste Management Water Management	Safety, Health and Environment
	Compliance Anti-Corruption	Ethics

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### MATERIAL SUSTAINABILITY TOPICS





### Material Sustainability Topics

Since our first report, we regularly review our material sustainability issues with the participation of our Kordsa ELT- Executive Leadership Team and the Sustainability Management Team and support the process with key stakeholders' engagement.

Considering the BIST Sustainability Index requirements, we added biodiversity in our materiality assessment process. As our plants are located within industrial zones, biodiversity is not in our area of high impact. In 2021, this topic took its place among the disclosure requirements of Refinitiv, CDP and loaning processes of banks. We disclosed our general approach regarding biodiversity conservation on our web site.

Supplier Assessments, as a topic brought up by our major customers in the previous years, are also placed in the matrix this year. In the matrix, compliance and anti-corruption topics are covered under Business Ethics. In addition to our employees and customers, we included our shareholders and

investors in our stakeholder engagement efforts in 2019. In this regard, we update our matrix annually by taking Kordsa's and four group of stakeholders' priorities into consideration. We present feedback of previous years from our key stakeholders in this section of the report and disclose feedback from the current reporting period in **Communication** With Our Stakeholders section.

Each year, priority material topics are approved by Kordsa Executive Leadership Team before publishing. In 2020, our priority topics remained unchanged after employee and customer surveys. In 2021, during the review meetings, we decided to improve our performance towards our targets on current materials topics and did not add any new topics.

The explanations on how we grouped the material topics into two are given on the same page of Kordsa Sustainability Matrix.

We present our prioritized topics as main headings that include the Sustainable Development Goals. The relevant explanations are given under Material Topics and UN 2030 Global Goals.

In 2021, Kordsa Executive Lead Team reviewed strategy, material topics and targets in a series of meetings.

In the coming terms, we will continue to exchange ideas with the four key stakeholder groups which are our employees, customers, shareholders, and investors, and further develop our goals regarding our material topics.



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### MATERIAL SUSTAINABILITY TOPICS



# Kordsa Materiality Matrix High

INFLUENCE ON STAKEHOLDERS (Assessments and Decisions on Kordsa)

**GROUP 1** Sustainable Growth **Business Ethics\*** Occupational Health and Safety **Energy and Emissions** Raw and Other Materials Waste Management **GROUP 2 Equal Opportunities and Diversity** Biodiversity Water Management Training and Development **Supplier Assessments Employment Human Rights** Community Development Low

# SIGNIFICANCE OF IMPACTS FOR KORDSA (Reputation, Regulatory, Financial, Operational)

### Legends

**Group 1:** Topics raised by three or two of our key stakeholders.

**Group 2:** Topic raised by one of our key stakeholders and we provide the related disclosures only on our web site.

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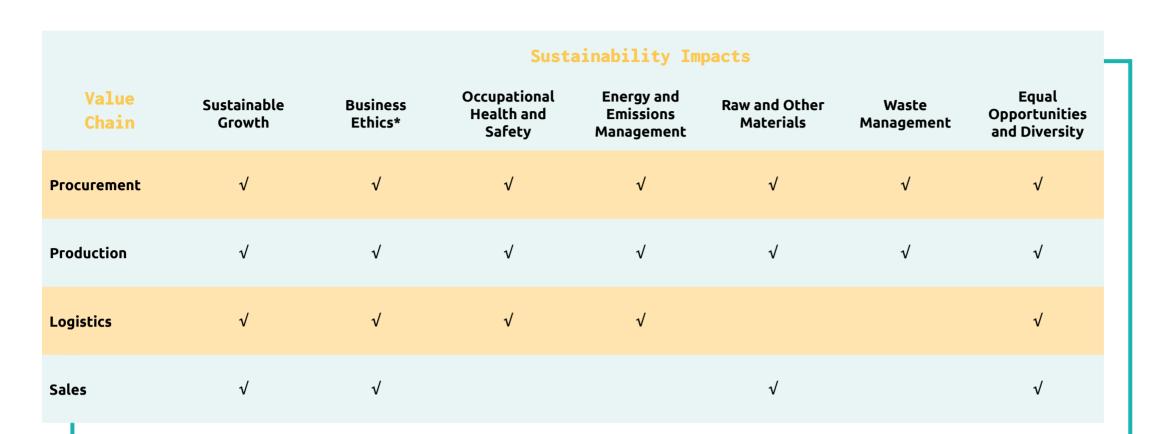
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<sup>\*</sup> Business Ethics covers Anti-Corruption and Compliance.

# SUSTAINABILITY IMPACTS ALONG OUR VALUE CHAIN



	Sustainability Impacts						
Value Chain	Water Management	Training and Development	Supplier Assessments	Employment	Human Rights	Community Development	Biodiversity
Procurement	√	√	√	√	√		
Production	√	√		√	√	√	√
Logistics		√		√	√		
Sales		V		V	$\checkmark$		



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# SUSTAINABILITY IMPACTS ALONG OUR VALUE CHAIN



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Topics by Key Stakeholders' Priority (Summary Table)

The details of stakeholder engagement works are given in **Sustainability Management** section of our report.

Topics / Stakeholders	Employee	Customer	Shareholder** and Investor
Sustainable Growth	3	6	1
Business Ethics*	2	4	5
Occupational Health and Safety	1	3	4
Energy and Emissions		2	2
Raw and Other Materials		1	9
Waste Management	5		3
Equal Opportunities and Diversity	7		8
Water Management			3
Training and Development Human Rights	6	7	7
Supplier Assessments		5	9
Employment	7		
Human Rights	4		6
Community Development			10

In the table, 1 represents the most prior and 9 represents the least prior topic for the related stakeholder.

<sup>\*</sup> Business Ethics covers anti-corruption and compliance.

<sup>\*\*</sup>Sabancı Holding

### CORPORATE GOVERNANCE





Kordsa Board of Directors represents and governs the company by monitoring the compliance of the company activities to the laws and regulations, articles of incorporation, internal regulations and determined policies. The board oversees Kordsa's long-term interests by making strategic decisions considering the company's ESG risks, growth, and gains.

> Our Board of Directors consists of six members, and we have two independent members. One of the independent members is the chair of Early Risk **Identification Committee** and member of Corporate **Governance and Audit** Committees. The second independent member is the chair of both Corporate **Governance and Audit** Committees and member of Early Risk Identification Committee. All members except independent members hold executive functions.

### **INTERNAL STAKEHOLDER VIEW**

79% of our employees who responded to the sustainability assessment survey think that...

Board Committees	Responsibility on all Material Sustainability Topics
Early Risk Identification Committee	Analyzing and prioritizing risks
Corporate Governance Committee	Monitoring of strategy and performance
Audit Committee	Auditing and securing those related activities are in line with Kordsa Ethics Code and policies

Kordsa Board of Directors Composition (2021)	Number	Ratio (%)
Total Number of Board Members	6	
Male	6	100
Female	0	0
Under 30 years old	0	0
30-50 years old	2	33
Above 50 years old	4	67
Minority or vulnerable groups	0	0
Executive	1	17
Independent	2	33

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### **CORPORATE GOVERNANCE**





Having members who possess diverse range of competencies, knowledge and experience is crucial for strong Boards and enhances better decision making. At Kordsa, during the board nomination processes, we evaluate the competencies of candidates by considering, their knowledge of the industry and ESG matters, general and especially crises management skills and global work experience.

We value diversity and inclusion, and do not discriminate any candidates on grounds of gender, age, ethnicity, religion, language, or race.

Kordsa Board of Directors Skills Matrix	%*
Gender (Female)	14
Term (15+yrs)	100
Audit Experience	29
Financial Service Experience	29
Non-Financial Real Sector Experience	57
Risk Management Experience	71
Environmental Social and Corporate Governance Experience	86
International Multi Geographical Experience	29
Research and Development Experience	14
M&A Experience	14
Manufacturing Experience	29
Digital Technologies Experience	14

\*Calculated considering the members of the Board of Directors determined as a result of the General Assembly held in March 2022.

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### **BUSINESS ETHICS**



The Code of Business Ethics that regulates Kordsa's relationships with its customers, employees, shareholders, suppliers, business partners, competitors, the environment and society cover four main topics: obligations, integrity, confidentiality and conflict of interest. Kordsa Code of Business Ethics, which is revised in September 2021, is available in the native languages of the countries we operate in (Turkish, English, Bahasa, Thai, and Portuguese) and is published on our website.

### Highlights of Business Ethics and Compliance from 2021

Our 1,559 employees, received an average of 2.36 hours of ethics training, including the human rights topic. 94 employees received Competition Law Training. Three of the seven notifications to the ethics hotline was related to bribery and corruption. Six out of the seven notifications were resolved within the year. However, legal proceedings concerning the one unresolved issue are still ongoing. In 2021, we did not receive any complaints concerning human rights, such as discrimination, harassment, child labor, or any complaints regarding information security. Therefore, there were no violations of human rights in 2021.

### INTERNAL STAKEHOLDER VIEW

Kordsa's policies, trainings and audits on compliance including anti-bribery and anti-corruption are adequate.

### Kordsa Code of Business **Ethics**

The processes of ethics management are explained on our website.

### **Anti-Corruption and Anti-Bribery Policy**

The details of our anti-corruption and anti-bribery management approach are explained on our website.

### **Compliance Management**

The processes of compliance management are explained on our website.

Three years performance data of business ethics, anti-bribery and anti-corruption and compliance are given here.

### Law and Compliance Department Activities in 2021 Turkev

- On 21.09.2021, The Board of Directors decided to update the Kordsa Code of Business Ethics, taking developments in the compliance universe into account. With the third updated version of the Code of Business Ethics, we started to work on making our corporate structure even more humane and equitable.
- Regarding the current Code of Business Ethics version, we started to prepare digital booklets for employees and organize online training sessions.
- We updated our Human Rights Policy in line with the Code of Business Ethics, taking into account developments in sustainability in the global supply chain. Similarly, we have updated our Anti-Bribery and Anti-Corruption Policy in line with the Business Ethics revisions.
- We initiated the Competition Law Compliance Program. We also published the Competition Law Policy and the Competition Law Compliance Manual, plus organized Competition Law Training and Exams as well as implementation of internal audits.

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### **BUSINESS ETHICS**

- We agreed with a service provider to establish a third party Ethics Hotline, which can be used by our employees and third parties such as our suppliers, customers, and business partners. We have already started to implement this system.
- Within the scope of Information Security Compliance studies, we received ISO 27001 internal auditor training, practice training, and certification. We updated the Information Security Policy and prepared the Information Security Management System Manual for employees.
- Within the scope of the PDPL compliance process, we have taken measures to ensure the security of the personal data of Kordsa's employees and customers. The hardware and software we employ for data security, security measures, policies, and our cyber security awareness program comply with privacy and data protection requirements. In 2021, we made extensive improvements to our procedures and training in line with the PDPL compliance process.
- Following local regulations, we have started to apply for Standard Conditions of Sale for all stakeholder companies in their own languages. We continue to work on the Terms of Purchase.
- We have been systematically collecting Statements on Business Ethics from our business partners to ensure that they operate following the Code of Business Ethics.
- We have revised the End-User Certification and 'Know Your Customer/ Supplier' forms to be obtained from customers and suppliers in risky countries or industries, and we have made them available in the relevant departments.
- We conducted interviews and tried various service providers in the acquisition of a third-party screening program. In addition, we informed all affiliates and received their feedback to determine whether there were any transactions with prohibited or risky countries during 2021.
- We provided 'Legal Partner' training for certain employees on what details to pay attention to regarding law and compliance from each department within Kordsa Turkey.

#### USA

• We have increased our efforts on export control regulations and economic sanctions. We have also provided training on export controls to certain

employees in Turkey and the USA, also organized training for Kordsa employees at the Composite Business Unit and Global Purchasing Unit within the scope of Export Administration Regulation (EAR). In addition, we have provided training to Kordsa Composite Business Unit employees on CAATSA sanctions. Furthermore, we created a recusal policy for the executives who are considered as US persons within the scope of CAATSA with regards to withdrawal from transactions entered into with sanctioned parties, and subsequently had the said policy signed by the relevant executives. We also prepared various documents following personal data protection law to facilitate data transfer from subsidiaries in the USA to Kordsa Turkey.

### Indonesia

• The primary role of the legal and compliance department at Indo Kordsa is to ensure that the company complies with all applicable laws and public company regulations, including but not limited to Corporate Law, Foreign Companies Regulation, Investment Law, etc. In Indonesia, the two major government bodies regulating the main business activities are the Ministry of Industry and the Indonesia Financial Services Authority.

### **Thailand**

• We have provided considerable advancements to Thailand's legal and compliance processes through our global compliance department. We have also worked on PDPL compliance, support in contractual matters, updating the code of ethics, and enforcing general sales conditions. In addition, Thai Indo Kordsa follows Occupational Health and Safety. Control of Substances Hazardous to Health, and Working in confined spaces regulations.

#### Brazil

• The legal and compliance team in Brazil carries out processes regarding Personal Data Protection under the supervision of the Global Law team. Our Brazilian team updated the Code of Business Ethics, established the enforcement of general sales conditions, and worked on renewing Kordsa Brazil's environmental license.



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# **BUSINESS ETHICS**

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Name of Law	German Supply Chain Due Diligence Act (All Countries)	
lmpact	The law will come into force from Jan 1, 2023. As the requirements of this law;  Human rights impact assessment in operations, Human rights impact assessment for suppliers, Produce binding documentation on the issue, Establish a risk management system, Assign responsible people in within the operations, Run risk assessments regularly, Publish a policy statement, Take precautionary actions in our and suppliers' operations, Take improvement actions, Establish a grievance mechanism, Apply due diligence requirements for risks on indirect suppliers Reporting and certifications processes.	
Name of Law	Packaging Waste Control Regulation (Turkiye)	
Impact	By collecting packaging waste within the Zero Waste Management System within the framework of the Zero Waste Regulation published in the Official Gazette dated 12 July 2019; give priority to material recycling of packaging waste; it is included in our legislation to use it as an energy source or to apply other recycling processes as a last resort. We follow the developments closely.	
Name of Law	Law on Creating Jobs 2020 / No:11 (Indonesia)	
Impact	Indonasian government prepared some regulations to ease investments and commerce in the country. The law is important as it supports the investments and employment by simplifying the licencing processes. All application regulations are not published yet. We prepared a risk assessment document on the short and long term topics that would affect our company.	
Name of Law	Personal Data Protection Act (Thailand)	
Impact	The law will be applied from June 1, 2022 on. Starting from 2022, we will continue PDPA compliance activities based on the new local regulation. We also aim to provide renewal training on "Working in Confined Space".	
Name of Law	Personal Data Protection Act (Brazil)	
Impact	The regulation is currently taking its shape. It is quite important to develop a corporate culture for the compliance of PDP. We follow up the decisions and applications of Brazilian Data Protection Authority.	

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### SECTORAL AND GLOBAL TRENDS



When we evaluate our risks at Kordsa we follow not only the in-house risks, but also the changes in the whole world, and prepare our company for the future by taking global issues, industrial trends, possible regulation changes and external factors all into account.

### **Mobility Trend**

In Kordsa, we closely follow the developments and trends in mobility in the world, due to its relationship with our products and solutions in the fields of tire reinforcement and composites. The appeal to electric vehicles is increasing very rapidly on both the manufacturer and the consumer side. Electric vehicles with low carbon emission are playing a crucial role in the future of mobility.

### Kordsa's Actions:

As Kordsa, we follow the mobility trends closely and develop materials that enables the vehicles to be lighter in weight and so create lower carbon emissions.

We provide the British electric car battery cell housing manufacturer TRB Lightweight Structures carbon-fiber fabric, which makes their battery cell housings lighter and safer, since 2020. We aim to contribute to the world's transition to sustainable transportation with this product of ours.

### **New Technologies and Digitalization**

One of the most striking power today is the huge speed in the advent of technology and its direct impact on all industries in the world. To renew and digitalize our processes and trigger innovation, we need to embrace this potential. Digitalization of operations and management based on clear data is getting more critical every day in us taking more data-based decisions. New digital applications open us to opportunities where we can offer more efficient products through more value-creating processes thanks to robots and artificial intelligence technologies and reduce the effects on our total value chain.

### **Kordsa's Actions:**

The steps that Kordsa takes toward new technologies and digitalization are available in detail under Technology & Digitalization topic of our report.

### **Legal Developments**

The ongoing global regulations like EU Green Deal and the new regulations that were introduced in 2021 in the countries we are active, their impact on Kordsa's activities and the actions Kordsa took are available under **Business Ethics** topic in our report.

### The EU Green Deal and The Developments in Carbon Boarder Adiusment Mechanism

Combatting climate change which comes first in the World Economic Forum Risk Perception Survey, and transition to low-carbon society are among the most important challenges of today. The green transformation policies that gained momentum across the world in the recent years have placed climate change related policies in the center of international economics and trade agenda.

The Green Deal roadmap announced by the EU in 2019 lays out the actions to be taken to achieve the target to become the first zero emission continent by 2050. The EU officially announced that they will reduce the greenhouse gas emissions by 50-55% compared to the 1990 levels by 2030.

Our Ministry of Trade prepared the "Green Deal Action Plan" in 2021 which aims the adaptation to combatting climate change policies and serves as a roadmap that will reinforce our competitiveness in exporting.

Comprising 32 targets and 81 actions under 9 main topics, the "Green Deal Action Plan" aims to support our country's transition to a sustainable and resourceefficient economy in line with its development goals collateral to the changes and transformation that are taking place in the international trade and economy.

With the Turkish Parliament's ratification of the The Paris Agreement back in November 2021, we are expecting important legislations and directives due to the country obligations and export requirements in the upcoming period.

We forecast that the suitable economic environment will develop for Turkey to subsidise R&D projects in line with its carbon neutral by 2053 target and turn to clean energy investments in all sectors and the Lenders to allocate funds to Technologies that will develop this production. Kordsa has been following these changes closely and working on adjusting all its operations to be compliant.

### Kordsa's Actions:

Our Compliance Department is following the national and international green transition policies and measures carefully and offering legal advice to the teams of Sustainability, R&D and Business Development on environmentally responsible policy studies.

The reduction targets Kordsa has set in transition to low carbon economy are available in **Our Sustainability Targets** section of our report.



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### **ESG RISK MANAGEMENT**



At Kordsa, we manage all environmental, social and governance factors that may create risks and actions to prevent them in accordance with our strategies. In the WEF World Economic Forum 2021 Risk Report the first of the 5 most likely risks was extreme weather events due to climate change and the second is failure to mitigate climate change.

### WEF World Economic Forum Risk Report 2021

Extreme Weather Events

Climate Action Failure

3 Human Environmental Damage

Infectious Diseases

**Biodiversity** Loss

Social

**Environmental** 

WEF Risks	Kordsa's Approaches
WEF 1: Extreme Weather Events	Related Insurance Renewals
WEF 2: Climate Action Failure	Emissions Management
WEF 3: Human Environmental Damage	ESG Risk Management
WEF 4: Infectious Diseases	ESG Risk Management
WEF 5: Biodiversity Loss	Kordsa <u>Web Site</u>

#### **Risk Management Organization**

Early Detection of Risk Committee (EDRC) – The committee members consist of members of the Board of Directors and independent members who possess knowledge and experience in national and international risk management. CEO, Chief Finance and Supply Chain Officer, Global Risk Manager and Global Internal Regulation Manager participate in the Committee meetings.

Global Risk Manager – Currently structured under Chief Finance and Supply Chain Officer.

Facility Risk Responsibles – In every facility, there is a person with that facility's operational know-how who assumes the responsibility of the risk management.

#### **Processes and Instruments**

Facility Risk Responsibles share their routine assessments with the Global Risk Manager on a monthly basis or whenever a major risk possibility arises. The information collected from the facilities and the other risk factors that are influential in global are consolidated and the company's risk inventory, indicators and planned controls are reviewed. A Standard Operational Procedure that complies to the internationally valid standards is set for Kordsa's Corporate Risk Management.

Kordsa is a part of the Turkish Business Council of Sustainable Development Sustainable Finance and Risk Management Working Group and has supported the Turkish translation of the "Applying Enterprise Risk Management to the Environmental, Social and Governance-Related Risks" document as published in collaboration with COSO and WBCSD.

The Global Risk Department performs scenario modeling and Monte Carlo Analyses in addition to the application processes of the International Risk Management. There is also a GRC (Governance, Risk & Compliance) application to record all risk objets on a digital platform. The Global Risk Department reports the results of the risk models and the registered risks in GRC to the participants in the Kordsa Early Detection of Risks Committee which assembles six times a vear.

#### Risk Definition and Prioritization

Risk definition is carried out during the meetings organized by the Global Risk Department with the participation of facility risk responsibles and based on survey studies. Also, the risk factors the global geopolitical developments produce are followed by the Global Risk Department.

Risk prioritization is the stage where the risks are listed in order to focus the attention of the decisionmakers and the operators on the most critical risks. Risk prioritization is carried out during the meetings at the definition step, or after a major change has taken place.

Risks are managed with a combination of bottom to top and top to bottom approaches.



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### **ESG RISK MANAGEMENT**

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### Kordsa 2021 Priority Risks

- COVID Pandemic
- Fire
- Failure in compliance to ESG
- Accessibility to Raw Materials
- Client Dependency
- Delivery Risks

### **Actions Planned Against Pandemic Risk**

- The high vaccination ratios of employees in all facilities
- Continuing 'wash hands, wear a mask, and keep social distance' (Hands Face Space) measures
- Regular disinfection of offices and common areas
- Poster billing in the common areas in facilities reminding of Hands Face Space
- Isolation and follow up processes for Covid Positive cases
- Phone app that facilitates the employees' health status reporting back to the company
- Shift planning as necessary in order to prevent spreading of virus within the company.

### Actions Planned Against the Risks in Compliance to ESG

**Actions Planned Against Fire Risk** 

the related departments in Kordsa

fires as planned in the investment budget.

• Risk engineer facility visits by insurance companies, and

assessment of the improvement suggestions in reports by

• Commissioning of the improvement actions against possible

- Sustainability and Legal Departments follow up global ESG regulations and track possible changes and define new risks accordingly
- SBTi commitment and developing actions in line with this commitment
- Preparation of the road map to meet 2050 Net Zero target
- Reporting to national and international reporting mechanisms such as CDP, Ecovadis and Borsa Istanbul
- Planning preventive and protective long-term investments in facilities against natural disasters that may arise from climate change



# SUSTAINABILITY MANAGEMENT



At the core of our understanding of sustainability as Kordsa, we have the goals of growing with our R&D and technology investments in our three main business areas, supporting the constant development of our talented human resources, and creating sustainable value for all our key stakeholders and our society through the use of natural resources responsibly and our community development projects. In all geographies we are operational in, we conduct our operations in full compliance to the laws and to our corporate ethical values with our sense of social and environmental responsibility we spread in all our employees.

Thanks to our expertise and innovative approach we contribute to the transformation of the world of today and future into a more sustainable one. We reduce fuel consumption by reducing tires rolling resistance, help production of lighter vehicles through our composite technologies, provide sustainable building projects with construction reinforcement technologies. Science and innovation continue to remain at the core of our business model.

### **AWARDS and ACHIEVEMENTS**

### **GOLD Medal by Ecovadis**

Kordsa has been awarded the Gold Ecovadis Medal again, in the assessment executed under Environment, Labor & Human Rights, Ethics and Sustainable Procurement topics by Ecovadis the world's most trusted business sustainability rating which serves over 200 sectors in 160 countries.

# ARC Awards Sustainability Category GOLD Award

Kordsa won the GOLD Award in the 35th International Mercomm ARC Reporting Awards of Americas & Europe category.

### **CUSTOMER VIEW**

Kordsa has demonstrated a strong commitment towards sustainability thought its participation in Ecovadis CRS Rating and CDP Climate Change and Water Programs. Well defined sustainability targets and deliverables are in-line with our strategic goals in terms of climate actions such as carbon footprint reduction and sustainable sourcing of materials.

Tire Reinforcement Customer



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# SUSTAINABILITY MILESTONES

	Won Sustainability Report Category 1st Place Award in Sustainable Business Awards 2018 Turkey. (SR2016)
2018	
	Won 1st Place Award in Integrated Annual and Corporate Responsibility Report Category in Asia-Pacific Excellence Awards 2018. (SR2016)
	Won the 1st Place - Platinum Award in Sustainability Report Category in LACP Inspire Awards 2018. (SR2016)
	Received AS9100* Certification with our Production Plant at CTCE-Composite Technologies Center of Excellence.
	Raised CDP Climate Change score to C- and Water Security score to B
2019	Entered Istanbul Stock Exchange Sustainability Index for the 4th time.
	Raised CDP Climate Change score to B and Water Security score to B.
	ARC 2019 Communication Awards of Mercomm (SR2017) Awarded with the Silver Medal in Asia-Middle East and Pacific Region.
	Started to work on Kordsa 2025-2050 Sustainability Road Map.
2020	Entered Istanbul Stock Exchange Sustainability Index for the 5th time.
	Raised CDP Climate Change score to A- and Water Security score to A
	Raised our score in Ecovadis Sustainability Assessment Questionnaire and received Gold Certificate.
	Received AS9100* Revision D Certification with our Advanced Honeycomb Technologies (AHT) production plant located in the USA. (* Conformity with the Aviation, Space, and Defense Industry Quality and Risk Management Standard)
	Received Carbon Neutral Certificate trough three main projects to meet its commitment to reduce its carbon level with our US based company Axiom Materials.
	Revised targets for 2025-2030-2050 Sustainability Road Map.
	Won the Silver Award for Best Materiality Reporting at Asia Sustainability Reporting Awards with our 2019 Sustainability Report.
2021	Won the Golden Trophy in 2021 ARC Awards with our 2019 Sustainability Report.
	Became a member of SKD Turkish Business Council of Sustainable Development Association's Circular Economy Platform.
	Supported the Turkish translation of the ERM document published by WBCSD in cooperation with COSO, as a member of SKD Turkey Sustainable Finance and Risk Management Working Group.
	Increased our score in CDP Water Program Score once again in 2021 and had ourselves included among the 118 companies in the Global A list, becoming one of the three Turkish companies included in. We held on to our A- score in the CDP Climate Change Program like last year. We were also awarded "A" score in the CDP Supplier Engagement Rating, which assesses on what scale a company includes its suppliers in their combat climate change process.
	Pledged to the Science Based Targets Initiative. (SBTi)
	Won the first prize in Intercompany Collaborations category at the Sustainable Business Awards with the environmentally friendly CoKoon technology Kordsa developed in collaboration with Continental.
	Received the Global Recycled Standard (GRS) certificate for our products containing recycled materials, which we obtain by recycling our scraps.
	Participated UN Global Compact Climate Ambition Accelerator and Target Gender Equality programs.



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### SUSTAINABILITY MANAGEMENT STRUCTURE

Our performance on our sustainability priorities is embraced at the level of Board of Directors, our supreme governing body in Kordsa. Our Chief Executive Officer (CEO), who reports to the Board of Directors, determines our company's environmental, social and governance (ESG) priorities, risks, and opportunities working with the Kordsa Executive Leadership Team, and develops ESG policies accordingly.

#### **BOARD OF DIRECTORS** (Audit, Corporate Governance and Early Detection of Risk Committees) **SUSTAINABILITY CEO WORKING GROUP** Deputy General Managers and Directors (Executive Management) Sustainability Employment Europe, Middle East, Africa Deputy **Head of Sustainability** General Manager (Sustainability Sponsor) **Sustainable Production** Sustainability Department Regional Sustainability Team (Head Office) **Sustainable Products Material Sustainability Topics** • Business Ethics (Compliance • Occupational Health and Safety • Energy Management Sustainable Supply Chain and Anti-Corruption) Employment • Emissions Management • Sustainable Growth • Equal Opportunity and Diversity • Water Management • Supplier Assessments • Human Rights • Waste Management · Community Development **Community Development** Training and Development · Raw and Other Materials Management

Our performance in sustainability priorities at Kordsa are owned at the Board of Directors level as our highest executive authority. The Board of Directors takes the sustainability principles and the environmental, social and economic impacts of the company activities into account when defining its corporate governance strategy. Our targets for sustainability priority issues, which we review every year, are determined by the

Kordsa Executive Leadership Team and renewed when necessary. Reporting to the Board of Directors, our CEO and The Executive Leadership Team outline the company's priority environmental, social and governance (ESG) topics, risks and opportunities and create the ESG policies accordingly. These policies are then reviewed and approved by the Board of Directors and publicized on our corporate website.

Our EMEA Chief Operational Officer acts as the Global Kordsa Sustainability Sponsor. Reporting directly to our CEO, theHead of Sustainability maintains the coordination between the departments and the top management in fulfilment of the targets while working to ensure that the sustainability strategies are deployed across the entire company.

The Sustainability Department based in the Head Office conducts its operations in cooperation with the regional sustainability teams based in Kordsa's facilities located in different countries. The duties of the regional sustainability teams are to monitor the key performance indicators built to fulfil the sustainability targets set in line with the company's strategic goals, and to ensure that the planned projects are put in practice and followed up by the relevant regional departments.

The Regional Sustainability Teams monitor the key performance indicators for their areas of responsibility through the Monthly Sustainability Performance Indicators Tracking Chart and report accordingly. The teams also prepare a Quarterly Sustainability Performance Tracking Report to be submitted to a top management every three months which includes the monitoring data and assessments toward the targets.

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### SUSTAINABILITY MANAGEMENT STRUCTURE

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Defined as one of Kordsa's strategic initiatives, sustainability targets are being monitored through set key performance indicators. Sustainability targets were deployed into the entire management team's individual targets, starting from the CEO level. Individual targets were also defined in the Kordsa Performance-Based Variable Bonus Scheme through which the sustainability performance was also included in the bonus scheme.

Sustainability Working Groups serve to build road maps in order for Kordsa to reach its sustainability goals and perform the tracking and monitoring of the action plans created in that scope. In 2020, Sustainable Employment, Sustainable Production, Sustainable Products, Sustainable Supply Chain, and Community Development working groups began to design the projects and programs that will be run toward the next five years' targets.

We have determined that eight of the Sustainable Development Goals directly overlap with our business processes; SDG4: Quality Education, SDG 5: Gender Equality, SDG 6: Clear Water and Sanitation, SDG 8: Decent Work and Economic Growth, SDG 9: Industry, Innovation, and Infrastructure, SDG 12: Responsible Production and Consumption, SDG 13: Climate Action, SDG 17: Partnership For Goals

#### 2021

The sustainability targets we updated in the fourth quarter of 2020 is located **here.** 

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### Kordsa Sustainability Road Map 2050

#### 2016

We prepared a five-year sustainability roadmap which was approved by Kordsa Executive Leadership Team according to the material sustainability topics that we identified at Kordsa.

#### 2017

Considering 2016 as the base year, we prepared all sustainability management actions up to 2020.

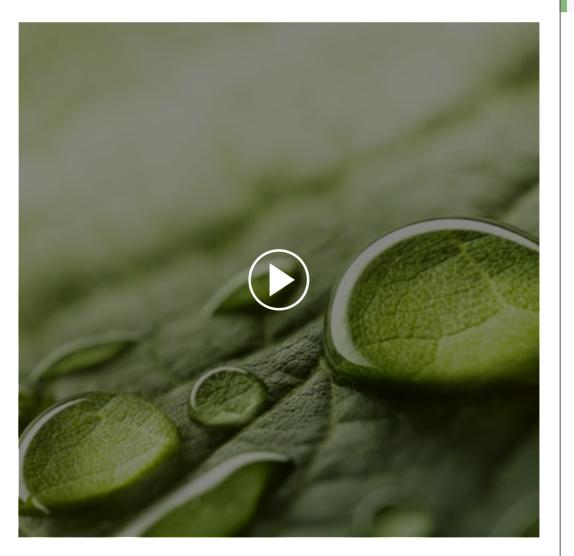
#### 2019

We accomplished most of our targets by the end of 2019.

#### 2020

We decided to include the calculation of Scope 3 emissions at all facilities, which is one of the targets we could not reach in 2019, in the 2020 studies. Our 2020 Scope 3 data is included in the **Emissions Management** section.

We reviewed our strategic priorities and set new short, medium, and long-term sustainability goals based on the United Nations (UN) 2030 Sustainable Development Goals.



# **COMMUNICATION WITH OUR STAKEHOLDERS**



While striving for sustainable development and growth goals at Kordsa, we listen to our key stakeholders and aim to sustain the social and economic values that we create. (

### Communication With Our Stakeholders

We define our stakeholders as people and organizations that are being influenced by our activities, and at the same time having impacts on our company to achieve its business targets.

Since the first stakeholder prioritization studies in 2015, we review our stakeholders in terms of their priority and material topics, biannually. We grouped our key stakeholders that had an intensive economic, social, and environmental interaction with our company concerning our strategic topics, by the extent they were influenced by our company's activities and their impacts on our company's efforts to achieve its business targets. These groups are given in **Key Stakeholders** chart.





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# **COMMUNICATION WITH OUR STAKEHOLDERS**

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**Key Stakeholders** 

► General Public

► Local Communities

► Local Governments

► Non-Governmental

Organizations

► Labor Unions

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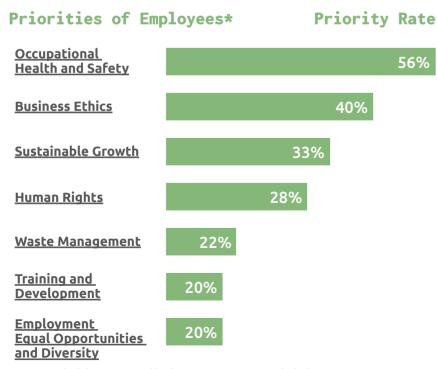


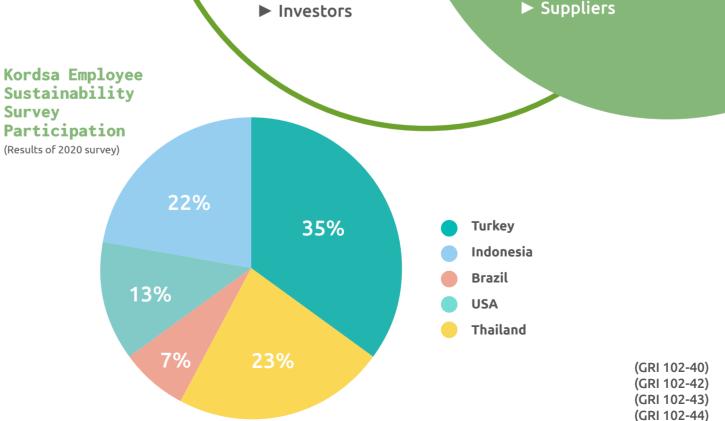
### Sustainability Communication with Our Employees

Since 2015, we conduct a sustainability assessment survey annually to raise the awareness of our employees on sustainability and domains of our company. Through this survey, we aim to understand our employees' priorities and gather their opinions on our company's sustainability performance. We share these views in the relevant sections of our report.

344 white-collar employees including engineers, specialists, supervisors, managers, directors, and top management, 35% of which have been working for Kordsa for more than 15 years, participated in the sustainability survey to assess 2020 performance. 34% of the participants responded the survey for the first time where all participants selected and prioritized the topics of their concerns and also evaluated Kordsa's performance on them.

Performance evaluation part of the survey is explained in summary and actions under **Employee Sustainability Survey** topic.





KORDSA

**▶** Employees

Customers

➤ Shareholders

<sup>\*</sup> Topics which have 20% and higher priority rate are included.

### COMMUNICATION WITH OUR STAKEHOLDERS

### Sustainability Communication with Our Customers

We have been communicating with our customers to receive feedback on both our sustainability performance and the strategic issues they expect us to focus on. Each year, we aim to engage more customers in our sustainability processes.

The first topic we included in the report as a result of the feedback from our customers was 'evaluation of social and environmental impacts in the supply chain'. We have been conducting supplier sustainability performance surveys for a growing number of suppliers since 2017. The details are presented under **Selecting Suppliers** topic of the report.

Another priority issue from our customers' feedback was 'human rights', which was also brought up in BIST Sustainability Index evaluation. As a response, we launched **Kordsa Human Rights Policy** effective for all operations from March 2018.

In 2020, we carried out interviews with customers from three different product groups with whom we conducted online sustainability prioritization survey. 36% of the participating customers were from tire reinforcement, 22% were from composites and 43% from construction reinforcement technologies market. The feedback we received and the actions we took for them as Kordsa are available in the following pages.

### **Employee and Customer Online Survey Method**

In the surveys, we list all the topics that we receive from Kordsa top management and other stakeholders on an online platform moderated by our consultant and ask all our employees and customers to put them in an order according to their own priorities. If there is a priority that our employees and customers may have but is not already listed, they are given the opportunity to share it freely with an open-ended question. We analyze the results of the survey with our consultant and integrate in our report.

In both surveys in 2020, we also asked our key stakeholders to prioritize Sustainable Development Goals for Kordsa to increase their awareness.

We ask performance evaluation questions to our employees on primary topics to raise awareness in them and have their opinions on these topics in the meantime. We also asked our customers the reasons behind their decision to work with Kordsa. We plan to render the surveys biennially. All results are placed in relevant sections of our report.



(GRI 102-43)



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Individual Expectations of Employees	Our Responses / Location in Report
Increasing investments on talent and skills management	Training and Development

Dissemination of Technological Developments	Technology & Digitalization

Start community projects on recyclable materials **R&D and Innovation** 

### Other Expectations of Shareholders\* Location of Our Related Disclosure

1.Technology and Digitalization	Technology & Digitalization
2.Innovation	R&D and Innovation
6.Risk Management	ESG Risk Management
8.Stakekholder Collaboration and Partnerships	R&D and Innovation

<sup>\*</sup>Sabancı Holding's priorities are given in parallel to its own materiality assessment.

Other Expectations of Investors

### Our Responses and Actions

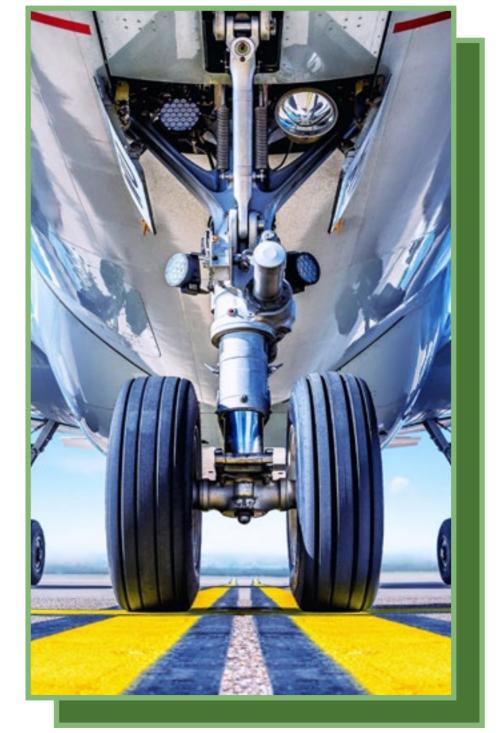
Profitability and growth, especially in the field of composites in the coming years	Continue to invest in composites especially in the USA
Request for information about the efforts made to make Kordsa products environmentally friendly	Include relevant information regarding these issues in Investor Relations presentations which are updated quarterly and located on our web site.
Sustainably sourced raw materials and supplier assessment reporting	Integrate social and environmental aspects to supplier selection and evaluation process
Executive pay including a component that is related to sustainability management and targets	Link executives' salary performance to the performance of all sustainability goals.
Board level responsibility for sustainability management and targets	All sustainability issues are monitored by the Committees working under the Board of Directors. Lead and monitor ESG efforts of Kordsa



Our Actions and Future Plans

**Expectations of Our** Tire Reinforcement Customers

Life Cycle Assessment (LCA)	Running life cycle assessment analysis (LCA) study for tire reinforcement products in Turkey in 2021.
Supply chain ESG assessment	Integrating social and environmental aspects to supplier selection and evaluation process.
Prepare Ecovadis Report	Preparing our Ecovadis Report annually
Monitor and reduce CO <sub>2</sub> emissions	Setting targets on GHG emission reduction. We committed to the Science-Based Targets Initiative (SBTi) in September 2021.
Monitor and reduce water consumption	Setting targets on water consumption reduction for 2030
Prepare CDP Reports (Climate Change & Water Security)	Preparing CDP reports since 2014
Use sustainable materials in production / Monitor and report SMR index (Sustainable Material Ratio) Use recycled raw materials (PET-Polyester) Reduce waste and reuse product wastes	Yarn and fabric products with recycled NY6.6 content, which we produce by recycling Kordsa's nylon production scraps, are positioned at customers  Searching for appropriate sources for recycled materials.  Working to reprocess and recycle Kordsa's PET scraps  Started production trials with recycled PET chips purchased from suppliers as 'post-consumer' materials.  Working on recycling technologies of mixed waste as they will contribute more to circular economy when compared to 'bottles' as r-PET resource.
Propose low environmental footprint products / Use bio-based materials in production.	Evaluating Life Cycle Assessments (LCA) of raw materials from our suppliers / Searching for new sources and testing them
Find out about Kordsa's sustainability approach in detail	Bringing up and sharing Kordsa's sustainability agenda during customer visits
Collaborate for environmentally friendly technologies	Continue our cooperation with institutions such as customers, universities and H2020 projects.



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### **Expectations of Our Composite Customers**

### Our Actions and Future Plans

Light weighting especially for longrange electric vehicles and aircraft

Meeting and discussing for opportunities / Working together with third parties.

Market preference for sustainable "green" products Drive to re-use or recycle materials at product end of life

Using reactive thermoplastics or bio-based thermoset resins and develop new resin systems

Governmental policy, legislation, and consumer pressures to find a solution to end-of-life composites

Reprocessing waste and improve manufacturing processes including digital, analytics and sensors.

Alternative solutions to disposal of thermoset polymer, usually by incineration at the end of its life

We use reactive thermoplastic to increase the biological content of the resin (to achieve CO<sub>2</sub> emission reduction) and to reduce the cost of producing recyclable thermoplastic parts.

The assessments indicating that CO, emissions need to be significantly reduced by 2040 to avoid catastrophic climate change

Working to extend the life cycle of composites with associated enhancement to the articulation of the benefits

The cost of waste management and lack of landfill area

Working on our products to assure that they could be fully re-used or recycled at end of life, with no negative environmental impact

Regulatory requirements and cost of virgin raw materials

Continue working with 3rd parties like customers, universities, H2020 projects etc. Especially collaboration with Sabancı University under CTCE-Composite Technologies Center of Excellence roof.

Production of repairable composite structures

Initiated project on repairable composite parts and we continue to discuss with our clients on the current development stage and possible uses.

Eliminating the use of toxic/ hazardous raw materials in fire retardant applications

Continuing works on the development of alternative fire-retardant products. Development of products with prolonged fire-retardance and reduced toxic emissions is crucial.



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Expectations of
Our Construction
Reinforcement Customers

Our Actions and Future Plans

Eco-friendly concrete reinforcement solutions.

Proposing much lower-carbon-footprint products than existing reinforcement materials made of steel that are produced under high temperatures.

Efficient and less source-consuming application designs.

Providing reinforcement solutions that require less labor and less time compared to conventional wire mesh, while achieving better results.

Extended product service life and decreased maintenance needs.

Providing fiber reinforcement technologies that eliminate corrosion risk in concrete and increase its durability resulting with extended service life and minimum maintenance needs, and thus ultimately decreasing energy and source utilization.

Reduce waste amount and reuse product wastes

Studying on reprocessing and reusing Kordsa's polypropylene technologic waste.

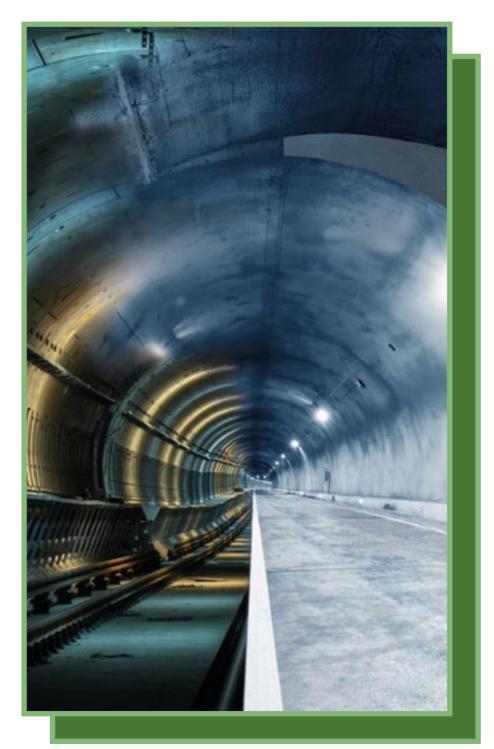
Reduce CO, emissions.

Enabling efficient stocking area and less transportation than conventional steel products, as the weight of Kratos needed for one square meter is about six times less than a conventional reinforcement material.

Kratos EPD document has been published. Compared to its equivalent steel reinforcement products, the use of Kratos reduces the carbon footprint of concrete by approximately 40-70%.

Increase the efficiency of systems in magnetic fields.

Supplying synthetic raw materials which are not affected by magnetic fields. Serves advantages on construction projects like smart warehouses, light rail systems, highways, and bridges where signalization is installed.



# MATERIAL TOPICS AND UN 2030 **GLOBAL GOALS**

### Our Journey to Support UN Sustainable Development Goals!

- We signed the UN Global Compact in 2014 and started to support the vision of "sustainable and comprehensive global economy" with our commitments.
- Following the announcement of the Sustainable Development Goals (SDG) by the UN in 2015, we have matched 13 of the global goals with our sustainability focus topics.
- In 2019, we decided to focus on the related five SDGs after examining which sub-goals Kordsa activities serve.
- SDG 3 Good Health and Well-Being was brought forward by our employees and customers in the stakeholder engagement surveys in 2020 because of Covid-19 pandemic.
- In 2021, with our bold carbon emission and water consumption reduction targets and strong sectoral and academic collaborations, we added SDG 13: Climate Action, SDG 6: Clean Water and Sanitation and SDG 17: Partnerships for the Goals among our focused SDG's.

UN 2030 Sustainable Development Goals	UN Targets Supported by Kordsa	Related Disclosure Topics Located in the Report
4 QUALITY EDUCATION	<ul> <li>4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.</li> <li>4.c: Significantly increase the number of qualified teachers through international cooperation for teacher trainings in developing countries by 2030</li> </ul>	Community Development  Community Development
5 GENDER COULTRY	5.1: End all forms of discrimination against all women and girls everywhere 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life	Employment  Equal Opportunities and  Diversity
G CLEAN WATER AND SANITATION	<ul><li>6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</li><li>6.5: By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate</li></ul>	Water Management Water Management
8 DECENT WORK AND ECONOMIC GROWTH	<ul><li>8.2: Pushing economic efficiency to higher levels through focusing on high value added and labor-intensive industries and by diversification, technology development and innovation</li><li>8.8: Protect labor rights and promote safe and secure working environments for all workers</li></ul>	Sustainable Growth  Employment  Training and Development  Human Rights  Occupational Health and Safety



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# MATERIAL TOPICS AND UN 2030 **GLOBAL GOALS**

UN 2030 Sustainable Development Goals	UN Targets Supported by Kordsa
9 INCUSTRY INNOVATION AND DEFASTRUCTURE	<ul> <li>9.4: By 2030, with each country acting in accordance with its own capacity, improve infrastructure and reinforcement industries in them sustainable, through increasing more efficient use of resources and further adopting more solid clean and environmental-fund industrial processes more.</li> <li>9.5: Encourage innovation in all but particularly developing countries by 2030, improve scientific research, and expand the technology industries through increasing the number of R&amp;D experts per 1M people, public and private studies and governmental spending</li> </ul>
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	12.2: By 2030, achieve the sustainable management and efficient use of natural resources  12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accorda international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts of the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse

17.6: Enhance North-South, South-South and triangular regional and international cooperation on and access to science,

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early

technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of

13.2 Integrate climate change measures into national policies, strategies, and planning

mechanisms, at the United Nations level, and through a global technology facilitation mechanism

warning

partnerships



**Emissions Management** 

R&D and Innovation

R&D and Innovation

Related



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# COMPLIANCE WITH DEVELOPING GLOBAL SUSTAINABILITY **STANDARDS**





In every phase of our sustainability journey as Kordsa, we follow the progresses in international standards that will develop our sustainability vision and targets to increase the value we create for our company and our key stakeholders.

We believe that integrating financial values with non-financial ones is highly essential. In that regard, we reviewed the related SASB standards for each sector that we have relations and interactions with, and in our report, we gave references to the issues that stand out in the sectors we supply products and services to and how we contribute to the related key performance indicators. The details are in the following tables.

SASB Auto Parts Standard 2018 SASB Aerospace Defense Standard 2018 SASB Construction Materials Standard 2018 Common Sustainability Topics and KPI's

Topic	Accounting Metrics	How Kordsa Responds
Energy Management	<ul><li>(1) Total energy consumed,</li><li>(2) percentage grid electricity,</li><li>(3) percentage renewable</li></ul>	Energy Management
Product Safety	Number of recalls issued; total units recalled	R&D and Innovation
Waste Management	<ul><li>(1) Total amount of waste from manufacturing, (2) percentage hazardous,</li><li>(3) percentage recycled</li></ul>	Waste Management

SASB Auto Parts Standard 2018 Other Sustainability Topics and KPI's		
Topic	Accounting Metrics	How Kordsa Responds
Data Security	(1) Number of data breaches, (2) percentage involving confidential information	Technology and Digitalization
Materials Sourcing	Description of the management of risks associated with the use of critical materials	Supply Chain Management
Business Ethics	Total amount of monetary losses as a result of legal proceedings associated with incidents of corruption, bribery, and/or illicit international trade	Business Ethics

SASB Aerospace Defense Standard 2018 Other Sustainability Topics and KPI's		
Topic	Accounting Metrics	How Kordsa Responds
Design for Fuel Efficiency	Revenue from products designed to increase fuel efficiency and/or reduce emissions	R&D and Innovation
Materials Efficiency	Percentage of recyclable products sold Percentage of input materials from recycled or remanufactured content	Raw and Other Materials Management
Competitive Behavior	Total amount of monetary losses because of legal proceedings associated with anticompetitive behavior regulations	Business Ethics

SASB Construction Materials Standard 2018 Other Sustainability Topics and KPI's		
Topic	Accounting Metrics	How Kordsa Responds
Greenhouse Gas Emissions	Gross global Scope 1 emissions, long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets	Emissions Management
Water Management	(1) Total fresh water withdrawn, (2) percentage recycled, (3) percentage in regions with High or Extremely High Baseline Water Stress	Water Management
Product Innovation	Total addressable market and share of market for products that reduce energy, water, and/ or material impacts during usage and/or production	R&D and Innovation

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## SUSTAINABILITY FACILITATORS AT KORDSA



We develop innovative, safer, more efficient, and sustainable products for a more convenient life in Kordsa with our constantly growing team at our two R&D centers, 12 plants in four continents where we produce reinforcement technologies. With our digital transformation investments, we carry out more effective processes and continue to create a difference in all the sectors we serve with our technologies.

Innovation advances the technological capabilities of industrial sectors and prompts the development of new skills. Inclusive and sustainable industrial development increases living standards for all people, and provides the technological solutions needed for socially and environmentally sound industrialization.

Therefore, At Kordsa, we indicate R&D, innovation, technology, and digitalization as facilitators of our sustainability targets and we continuously invest and render projects in these fields.

#### **AWARDS and ACHIEVEMENTS**

### 1st Place Award Among R&D Centers

Kordsa ranked 1st R&D Center for the third time in the category of R&D Centers employing 76-250 R&D personnel at the 8th Technology Development





At the 8th Sustainable Business Awards held in 2021, Kordsa won the award in the cooperation category with its environmentally friendly technology Cokoon, which it opened to the use of the industry with a free license.



Kordsa' approach to sustainability is in agreement with the latest industry trends. Both bio-based material and recycling technologies are still under development. The main challenges in front of tire cords manufacturers are sustainable material feedstock, sustainable material costs and efficiency of end-of-life tire technologies for recovery of the used tire cords.

Tire Reinforcement Customer



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We continue our works at our R&D Centers to differentiate ourselves in our products and services, offer our customers more competitive and innovative products, achieve production efficiency on materials, processes and equipment, and establishing Kordsa as the market leader in composites while preserving our pole position in the tire market. In this regard in 2021, we ran detailed Market-Product-Technology Road Map studies.





### Facts & Figures on R&D and Innovation



#### **R&D Centers**

electronics technologies, and



Personnel

### Personnel



**63** (izmit)

12 (istanbul)

### **Approved R&D Projects**



11,59%

Sustainable **Product Revenue** Ratio



**67.80% 0** 

**R&D Expenditure** Ratio for **Environmentally** Friendly Products\*



Patent Applications



Million

**R&D Expenditures Including Capex and** Opex





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### Our R&D Approach

At Kordsa we use Technology Readiness Level (TRL) in our R&D projects' management. An R&D project can start from any TRL level and move up and down the scale depending on the results obtained along the way during the process.

The 0-to-9 scale of the TRL system can be summarized as follows:

TRL	General TRL Definition	PHASE
0	Creative idea	
1	Basic research	IDEATION
2	Technology concept and/or application formulation	
3	Theoretical proof of the concept	CONCEPT
4	Verification in laboratory environment	CONCEPT
5	Verification in relevant field environment	
6	Field testing of the system/sub-system model or prototype	PROTOTYPE
7	Demonstration of the system prototype in the operational field Completion of the real system and	
8	commercial pre-production prototype	SCALE UP
9	Releasing of the product	

In our approach to R&D projects we carry out works under three categories:

#### **Customer Focused Projects**



We follow progressing and changing customer expectations by regularly listening to our customers and develop projects to meet those expectations. The target TRL level here is usually TPL 8-9.

#### **Operational Development Projects**



At Kordsa, we develop manufacturing technologies by following the trends closely with a skillful team in manufacturing technologies and persevere to offer our customers products with high added value.

### **Expertise Development Projects**



We follow future technologies closely and reinforce our project portfolio with expertise development projects in order to be ready for the future from today. Our works in this scope are run at lower TRL levels.

### Our Sustainable Product Approach

At Kordsa, we describe sustainable products in four categories:

Mitigation: Covers products and services that directly reduces natural resource usage and so greenhouse gas emissions.

**Enabler:** Covers products and services that creates positive environmental impact on customer activities and act as input in sustainable industries.

**Transition:** Covers products and services that are resource and/or carbon intensive but may potentially create transition to sustainable technologies.

**Creating a positive social impact:** Covers products and services that creates positive social impacts.

At Kordsa, we have defined 62 sustainable products of which 32 are developed by Tire Reinforcement, 16 Composites and 14 Construction Reinforcement Business Units.



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### Open Innovation Collaborations

**CoKoon:** Eco friendly dipping technology project developed by Kordsa and Continental.

**PolynSPIRE:** Horizon 2020 innovative technology development project for efficient and sustainable plastic recycling. Details of the project are given under the **Waste** Management section of our report.

TRB Collaboration: Joint work carried out with TRB Lightweight Structures to use Kordsa's carbon fiber fabric in developing batteries for mass production electric vehicles.

COMACH: Project to develop clean, high precision and flawless composite cutting robot supported by EUREKA.

**DiCoMi Project:** System, software and material development project to produce composite materials in 3D printer. The project includes 15 project partners from 11 countries under Horizon 2020 project scheme.

TÜBİTAK-BMBF 2+2 Turkish-German Project: TÜBİTAK and BMBF subsidized project titled "Automated Repair Patch Production" is about developing a prepreg using nanotechnology applications for damaged composite parts waiting to be repaired in aviation industry. Kordsa and Sabancı University took part in this international project which included project partners from Turkey and Germany.





### **Strategic University Collaborations**

We protect all our projects with confidentiality agreements; and we carefully handle ethical aspects and intellectual property issues.

Tire and Construction Reinforcement R&D Center	Composites R&D Center
Aachen Institute of Technology	RWTH Aachen University
Boğaziçi University	Boğaziçi University
Çankaya University	İstanbul Technical University
Eindhoven University of Technology	Sabancı University
Fatih Sultan Mehmet University	Kocaeli University
İstanbul Technical University	
Kocaeli University	
METU Main Laboratory	
Purdue University	
Rotterdam University	
Sabancı University	
Sakarya University	
Süleyman Demirel University	
University of Texas	
Tokyo Institute of Technology	
Uludağ University	
Yıldız Technical University	
York University	

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#### **OUR SUSTAINABLE PRODUCTS**

Kordsa product development processes vary between 5 to 10 years due to the mandatory security tests in the sectors where Kordsa's customers operate. We continue our studies in developing new products and technologies free of hazardous chemicals that increase energy efficiency and reduce carbon emissions.



#### TIRE REINFORCEMENT PRODUCTS



Capmax® the reinforcement product we developed at Kordsa facilities, is a top belt strip that can be directly applied at the tire building machine without the need for rubber coating. Capmax® decreases the production costs and increases efficiency, by eliminating many stages in tire production such as calendaring and cutting. By reducing rolling resistance which contributes to the reduction in fuel consumption, Capmax® also creates cost advantage for the end users. The potential market for Capmax® is the global light vehicle tires market using top belt strip.



Cord structures formed by twisting two or more different material types together are called hybrid cords. Kordsa launched Twixtra® that can be treated as the world's lightest hybrid cord product, in 2013. The manufacturers' choice in high performance tires is the Aramid-Nylon 6.6 hybrid cord structure. The product is very much lighter compared to its predecessor and it allows the tire to be produced with less raw materials. Lighter tires lead to less fuel consumption.

#### Sustainability impacts created by these products:

#### **Economic Gains:**

- Efficient and faster production process
- Improved total cost of use

#### **Social Gains:**

- More safety
- Comfortable driving at high speed

#### **Environmental Gains:**

- Less material usage opportunity
- Fuel savings by reducing rolling resistance

#### **Corporate Gains:**

- High value-added product in portfolio
- Strong knowledge and experience
- Reputation



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### **CoKoon Dipping Technology**

Kordsa developed CoKoon by joining R&D forces with Continental, a technology which does not contain resorcinol and formaldehyde in bonding textile reinforcing materials to the surrounding rubber matrix, and thus changed the 100-year rubber-based formula with an eco-friendlier one, after a 10-year R&D work. CoKoon is among the most crucial strategic collaborations in the tire sector.

Kordsa provides the CoKoon technology which does not require additional cost and can be applied without changing process equipment to everyone who wants to take part in a free of charge licensing pool established together with Continental and encourages the development of this technology. Hence, CoKoon is positioned to be the new industry standard which offers innovation in both product and business model.

**Economic Gains:** In rubber industry where, sustainable products are more expensive than traditional products, a sustainable solution is provided for rubber-textile dipping systems without an additional cost.

**Social Gains:** This resorcinol-and-formaldehyde-free formula will be the new industry standard, and the developed technology will be licensed to all companies across the sector free of charge as an outcome of the open-innovation approach.

**Environmental Gains:** In the new technology, more environmentally friendly chemicals that are compatible with REACH regulations will be used.

**Corporate Gains:** We have the pride in leading an innovation that will transform the sector we operate in.

In 2021, Kordsa started COKOON production on industrial scale. Two new tire producers joined the free licencing pool.



# DEVELOPMENTS IN TIRE REINFORCEMENT PRODUCTS IN 2021

At Kordsa, we continue our R&D development activities for sustainable products, mainly due to the intense demands from tire manufacturers. We made further progress in our development projects which we started in 2021, both according to the composition of raw materials and whether they were recycled.

**BioNY56:** Our Yarn and cord fabric studies on NY56 material, a bio-based nylon, continued. We consider NY56 a sustainable material due to its bio-based components that make up nearly 50% of its structure.

rNY66: We produce recycled NY66 flake by recycling the scraps generated during Kordsa's yarn production processes. We produced yarn and cord fabric using 20% recycled raw material. This product received customer approval in tire tests. Details on the LCA (Life Cycle Assessment) study we conducted for the product are available in the Raw And Other Materials Management section of our report.

In the future, we also plan to evaluate recycled NY66 resources other than Kordsa waste.

**rPET:** We continue to work on producing yarn and cord fabric on an industrial scale, especially with the rPET raw material obtained by recycling waste PET bottles. The assessment process of other rPET sources produced by both mechanical and chemical recycling continues.

**BioPET:** We have made progress in laboratory-scale studies with BioPET raw material obtained using bio-based MEG, and the testing process of products from different sources continues.

### **Tire Reinforcement R&D Projects**

10 projects focused on the use of recycled materials, and 5 projects focused on reducing the use of materials, which started in 2015, were completed in 2021.



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#### CONSTRUCTION REINFORCEMENT PRODUCTS



#### **Kratos Macro and Micro**

KraTos, an innovative synthetic fiber reinforcement is used in concrete reinforcement implementations of infrastructure and superstructure projects. It makes a difference in the construction market by being preferred in prestigious projects with its high performance since 2014.

**Economic Gains:** Provides labor cost advantages for our applicant customers and contributes to the concrete's durability and longer life thanks to its polymer structure. Offers easy storability and advantageous logistic costs.

Environmental Gains: Provides less energy consumption and smaller carbon footprint in its production compared to steel components. Has resistance increasing properties for concrete against freezing and thawing.

Social Gains: Provides high labor efficiency with its ease of use. Thanks to its special fiber structure, it mixes evenly into concrete which offers efficient fracture control across the surface, and it has increased load carrying capacity properties.

Corporate Gains: Thanks to its non-conductive structure, it is used in special projects, in sections where electromagnetic systems are located and where continuous efficiency is required. It is also preferred because it provides long-term safety and high strength.

Our KraTos synthetic fiber reinforcement products were granted Made in Turkey certificate by İstanbul Chamber of Industry, in 2020. We foresee the great advantage of this certificate especially in government tenders.

In 2021, Kratos Macro received Environmental Product Declaration in accordance with ISO 14025 and EN 15804:2012+A2:2019!

### **Kratos Product Carbon Footprint Benchmarking**

According to the product life cycle evaluation made within the framework of ISO 14040/44 standards, the carbon footprint of 1 kg of Kratos Synthetic Fiber Concrete Reinforcement is equivalent to 2.9 kg of CO<sub>2</sub> eq.<sup>1</sup>

Kratos Synthetic Fiber Concrete Reinforcement product increases the strength of concrete. Compared to its equivalent steel reinforcement products, the use of Kratos Synthetic Fiber Concrete Reinforcement reduces the carbon footprint of concrete by approximately 40-70%.<sup>2</sup>

<sup>1</sup>Kratos Synthetic Fiber Concrete Reinforcement EPD (Environmental Product Declaration), EPD Turkey, Registration No: S-P-03126.

<sup>2</sup>The average of the carbon footprint values of 4 different steel reinforcements, randomly selected, whose values vary between 0.71 - 0.98 kg CO<sub>2</sub> eg/kg product.



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Sustainability Features of Composite Products Developed at Kordsa

- The new generation prepregs, produced from thermoplastic polypropylene raw material, aim for a more environmentally friendly life cycle. They are recyclable by replacing the thermoset materials commonly used in the industry.
- Materials produced using resin systems and natural fibers are more environmentally friendly and can provide competitive mechanical values with currently used fibers.
- Bio-based resin systems offer better mechanical and fire-resistant properties than their counterparts. They are referred to as 'materials of future' as they are entirely natural materials and have low CO, footprint.
- The carbon fiber fabrics we produce at Kordsa which are used to produce composite battery cases for electric vehicles contribute significantly to the essential transition to sustainable transportation solutions.
- E-glass prepreg, our flame-retardant formulation, which we have offered to the aviation industry to be used instead of commonly used E-glass/phenolic prepregs, is environmentally friendly due to the absence of solvent content and its flame-retardant feature with additives.
- Since our flame-retardant resin product has fire-resistant properties, it delays the release of harmful gas during fires.
- Our ceramic matrix composite products are used in fuel cells that can generate emissionfree electricity.
- We have reduced energy usage with the new resin mixer system by preventing the resins from being heated repeatedly.



### Water Based Phenolic Honeycombs

Advanced Honeycomb Technologies (AHT) is a wholly owned subsidiary of Kordsa which produces honeycomb cores for a wide range of applications from aerospace and aviation industries to construction and consumer level sporting and leisure products, and their Aramid honeycomb cores are made of Dupont Nomex® paper coated with water-based heat insulating phenolic resin which exhibits extraordinary flame resistant properties that make them suitable for the aerospace and aviation standards, finding them a place in aviation applications.

The main difference between AHT and the rest of the industry is the specially developed water-based, solvent free process, that provides a significantly less volatile organic release (VOC) and a safer producing process.

**Economic Gains:** Aviation qualified solvent free water based phenolic honeycomb production creates competitive advantages.

Social Gains: Occupational health hazards due to solvent usage are eliminated in water-based honeycomb production. It also eliminates explosion risk during manufacturing and reduces VOC release.

**Environmental Gains:** Water based technology decreases the risk of hazardous solvent release to the environment.

Corporate Gains: Depending on current and upcoming necessary restrictions in EU for occupational safety, health and environment, it is expected that avoiding solvent in production and switching water based phenolic resins will make it easier to open new plants and sustain them.

### E-Glass Prepreg

(Composite Leaf Springs for Heavy Commercial Vehicles)

As a company that values strategic industrial partnerships, we create solutions for carbon emission reduction for various industries at Kordsa. We signed a contract with Ford Otosan in 2015 to reduce the weight of the steel leaf spring systems used in heavy commercial vehicles by 75%.

In this project under TÜBİTAK 1501 subsidy program, we have been developing a resin and glassfiber reinforced prepreg material since 2019 to be used in composite leaf springs that will replace the conventional steel leaf springs that are currently in use in transit mixer trucks.

**Economic Gains:** The commercialization meetings of the product, which will create a significant saving opportunity for the vehicle owner, began in 2021.

**Environmental Gains:** Due to less fuel consumption, natural resources will be protected, and less emission will be released.

Social Gains: It will help reduce air pollution.

Corporate Gains: Another high value-added product will be available in the portfolio.



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#### THIN FILMS AND FLEXIBLE ELECTRONICS

#### Wearable Healthcare Electronics

New technologies and materials are introduced to make life better and easier in our continuously changing world. Products based on thin films and flexible printed electronics technology are expected to make their way into our lives soon. This new technology, having applications like foldable displays to wearable biosensors, photovoltaic solar cells to flexible RFID's will be more in our daily lives in the near future and will add extra ease and comfort to our daily routines. In the near future, we will see many innovative thin film and flexible electronics applications in the automotive, consumer electronics, packaging and healthcare industries. The invention of printed electronics technology, bio-based and bio-degradable renewable substrates and cheaper and easily obtainable conductors will bring benefits to sustainability.

As a company with an open innovation approach, Kordsa does major collaborations and now seeks new opportunities in thin film and flexible electronics technology. Kordsa puts focus on these materials and technology of the future and has launched "Thin Films and Flexible Electronics" R&D platform and is engaged with seven partners on a new project named "Nanosis-1004" financed by TUBITAK, on wearable healthcare electronics for monitoring health data via nano technological sensors. Also through our OE-A Organic and Printed Electronics Association membership, we has the opportunity of following the advances in the technology more nearly and contributing to the works.



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## TECHNOLOGY AND DIGITALIZATION



With the Digital Roadmap we created in 2021, we planned our digital transformation journey at Kordsa under four main categories: Connected Operations, Autonomous Technologies, Cyber Security & Infrastructure, and Digital Workforce.

### Technology and Digitalization

As Kordsa which transformed the concepts of "Digital Transformation and Industry 4.0" into the corporate culture, we continue our efforts to digitalize the new products, processes and methods we are developing globally for all countries we operate in.

Having transformed all countries into a standard production reporting structure by collecting data from production on a global scale, we have reached to a point at Kordsa today where we established such systems that evaluate and integrate higher level new generation smart technologies with an analytic intelligence.

At Kordsa, we approach digital transformation as a journey rather than a project. We commenced the transformation journey in 2018 using a measurement and assessment methodology, and we invested \$3.6 million by the end of 2021. We prepared a three-year digital transformation roadmap after many business processes were examined in detail by expert sector consultants from different countries; as a result, future development areas were determined. We implemented all the inclusive projects in the roadmap and maintained outstanding efficiency, quality, and customer satisfaction with digital outputs for all stakeholders. We saved \$600,000 with our data analytical work in energy optimization.

Digital maturity and cyber security maturity assessments continue to be carried out on a regular basis by independent international institutions, and we constantly pursue new technology and development opportunities. By 2021, we repeated digital maturity assessments in all of our global facilities and determined new strategies by selecting two-year targets and our main focus areas.

With the Digital Roadmap we created in 2021, we have planned our digital transformation journey at Kordsa under four main categories:

- 1. Connected Operation
- 2. Autonomous Technologies
- 3. Cyber Security & Infrastructure
- 4. Digital Workforce





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## TECHNOLOGY AND DIGITALISATION



#### 1. Connected Operation

#### At Kordsa,

- To ensure rapid end-to-end traceability with the transition to a large data platform structure where data is centralized in production,
- To prevent quality errors and save time with advanced sensor systems and image processing technologies,
- To ensure more effective and flexible planning management with optimizations and smart systems in the supply chain.

Thanks to our robust infrastructure, we have provided remote working and secure connection services to all our employees to ensure uninterrupted business, even during the pandemic period.

### 2. Autonomous Technologies

#### At Kordsa,

- We have implemented robotic process automation, one of our priorities in the field of digital applications.
- We have activated many innovative technologies such as image processing, mobile technologies, and machine learning at all our facilities.
- In 2020, we transformed 50 processes to run entirely digitally without human intervention. In 2021, we developed our robotic sensor systems, and transformed nearly 100 processes with robotic process automation
- We started digitalization of the health and safety of our employees by using image processing technologies during the pandemic.
- We continued our global investments in augmented reality projects during the remote working period.

At Kordsa, we prioritize business partnerships with start-ups, projects carried out within the framework of TÜSİAD's Digital Transformation Program SD2, university and industry collaborations, joint projects with Sabancı Holding companies, and projects in the field of Internet of Things (IoT) with Sabancı Dx. We will continue to maintain our exemplary quality, occupational safety, and productivity through digital automation.

### 3. Cyber Security and Infrastructure

#### At Kordsa,

- We see our work on cyber security as a crucial part of our digital transformation.
- We regularly conduct studies such as vulnerability scanning, phishing assessments, and disaster recovery solutions.
- Systems that can take preventive measures against threats that may be harmful by monitoring all varieties of threats worldwide through Security Operations Center applications are also active at Kordsa's facilities in every country.
- We successfully completed the 2021 audit at Kordsa Turkey, which holds the ISO 27001:2013 Certification for Information Security Management System.
   We decided to renew our certification and expand our standards in this field globally.

At Kordsa, we consider our cyber security roadmap and business continuity among our priorities and regularly make risk calculations. In addition, we conduct regular evaluations with the Board of Directors and the Early Detection of Risk Committee and include investment decisions within this scope among our strategic priorities.

### 4. Digital Workforce

#### At Kordsa,

- We consider it crucial to provide our employees with exceptional training; therefore, we cooperate with Sabancı University, Sabancı Dx, and many international consultancy companies in digital transformation training.
- We invest in digital work environments for our employees and customers.
- Communication channels effectively enable our stakeholders to carry out their business efficiently and securely with digital conveniences.
- We develop advanced technologies with project teams from various business units adding analytical approaches to their expertise.

In 2022, we aim to increase the competencies of all company employees with digital literacy training. Furthermore, we will continue to take steps towards realizing our potential as a "Digital Company of the Future" by supporting our priorities with our efficient and expert teams' strategic investments.



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## **ECONOMY AND GROWTH**



We continued our investments for a sustainable growth in Kordsa in the year of 2021. We protected our leader position in the tire reinforcement market which relies on our longstanding strategic partnerships with all global players. As we prepared for new investments in the composites field we have been actively operating, we also increased our company's operational profitability by 245% and net profits by 470% to 856 million TL.

We increased our operational efficiency with the successful outputs of our industry-leading innovation efforts in our two R&D centers which focus on the tire and construction reinforcement. thin-film & flexible electronics and composites.

Our goal is to protect our marketleading position in tire reinforcement technologies, strengthen our position in construction reinforcement technologies, and become one of the leading advanced components companies in the world with our product portfolio enhanced by composites investments.

### **AWARDS and ACHIEVEMENTS**

Kordsa Won the 1st Place Award in IDC Turkey DX

Kordsa, with its Fully Traceability in Production Project won the Future of Connectedness Category Award in IDC Turkey DX.

This award recognizes the organization that is able to rethink the way people, things, processes and applications connect to enable the seamless flow of data and drive business outcomes.

### SUPPLIER VIEW

We look forward to continued collaboration together collaborative journey with Kordsa for how to create resources to do so.



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## SUSTAINABLE GROWTH



### **INTERNAL STAKEHOLDER VIEW**

**%79** of our employees who responded to the sustainability assessment survey think that...

Kordsa creates significant economic value for its key stakeholders.

#### SUSTAINABLE GROWTH

As Kordsa, we transformed ourselves into a company that innovates, produces, and offers advance technology to the whole world. We continued to take leaps forward to contribute to our country's development in 2021 by successfully managing the continuing pandemic. Thanks to being a global company with a structure in five different countries, we served our customers with speed and agility and maintain continuity in business.

We continued to ensure our business continuity and create profitability in all the geographies we were operational in with our strategic decisions and reinforcement technologies. Under auspices of our strategic investments and industry-leading technologies, we closed the year 2021 with 7.9 billion TL turnovers. Our period profit has been 856 million TL, and our main operational profit has been 1.3 billion TL.

In 2021, the subsidy we received from the government as part of the Turquality Scheme decreased by 46% down to 159K TL. Our donations totaled 742,569 TL.



#### The Value We Distribute to Our Stakeholders

In 2021, our suppliers which also cover our operational expenses had the highest share, 77% of the economic value we distributed to our stakeholders followed by our employees with 12%.

### **Economic Value Distributed 2021**

	12%	Employees
--	-----	-----------

1% Government & Communities

**2%** Shareholders

8% Profit

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## SUSTAINABLE GROWTH

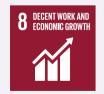






Project Name	Towpreg Development for Filament Winding Systems
Place and Date	Kordsa CTCE-Composite Technologies Center of Excellence / 2021
Objectives and Actions	The primary reason behind the production of our Towpreg product that was developed as a resin-soaked carbon-fiber to be used in filament winding systems is the increasing demand for hydrogen tanks and the switch to these products in the aviation sector. We as Kordsa developed this system in our R&D center and offered it to the market in the international arena.
Results	Economical: Consumable inputs have been reset. Energy efficiency due to the new resin system which does not require high temperatures. The product took its place in our product portfolio as a high-return technology.  Social: The Towpreg resin system we developed in our R&D center is a testament to our company's position in the international arena as a self-developing, market leading and trendsetting establishment.  Environmental: We continue to enhance our portfolio of environmentally responsible and energy-efficient products with almost zero waste.  Corporate: The fact that the product is an outcome of a collaboration between our R&D centers in Turkey and the United States is a good example of institutionalization of information and the units that complement and help each other develop.
Plans for Future	We will continue to enhance our product portfolio.







Project Name	Developing Prepregs with Flax Fiber Fabric for Automotive Sector
Place and Date	CTCE-Composite Technologies Center of Excellence and Sabancı University / 2021-2022
Objectives and Actions	We aimed to develop a prepreg system that is visual, light and suitable for use in the automotive sector by combining the BComp's flax-fiber fabric and the CM11 resin system that we developed at Kordsa Composite Technologies Center of Excellence which can be used in press curing method for cosmetic applications.
Results	Within the scope of the project, As a result of the project meetings held with BComp, we brought their flax fiber fabric and CM11 together at the CTCE and produced the prepreg which was then passed to Sabancı University where press and autoclave processes were carried out to produce visual parts. Our market development team is following up the project details.
Plans for Future	We continue commercialization works with Bcomp.



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## SUSTAINABLE GROWTH

**Results** 

**Future Plans** 



We continue commercialization works.

Within the scope of the project, we adapted a bio-based resin into the project and obtained high results in

opportunity to service below markets where flame retardancy is an important requirement, that are: aviation

both aviation tests (FAR 25.853) and railroad tests (EN 45545) thanks to a highly sustainable formula.

With the new flame retardant prepregs, Kordsa will have a stronger product portfolio. Kordsa will find

and aerospace industries, machine industries, marine and automotive applications and sporting goods.



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## SUSTAINABLE SUPPLY CHAIN MANAGEMENT

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KORDSA SUSTAINABILITY REPORT

INTERNAL STAKEHOLDER VIEW

**%72** of our employees who responded to the sustainability assessment survey think that...

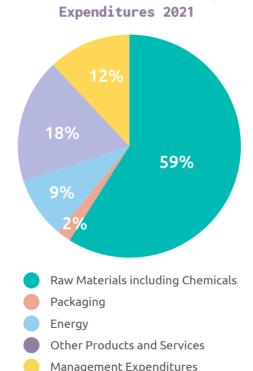
Kordsa's policies, trainings and audits on human rights concerning its suppliers' operations are adequate.

#### PROCUREMENT PRACTICES

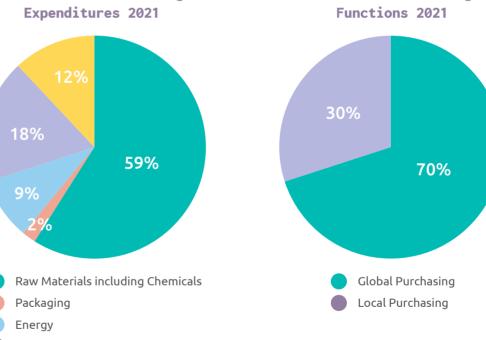
The global purchasing function, located at our headquarters in Istanbul, is responsible for the procurement of the raw materials used in 12 plants in five countries and/or whose supply is considered strategic, in addition to capex and service procurements above a specific budget.

Local purchasing departments are responsible for the supply and follow up of all services and raw materials other than the abovementioned items. The suppliers of which the trading terms are specified by Global Purchasing Department are also managed by local purchasing departments in terms of operational order processes. The consolidated import ratio of all Kordsa operations is 70%.

Our main procurement item is raw materials to produce nylon and polyester yarns, cord fabric, single end cord, concrete reinforcement fiber and composites.



**Breakdown of Purchasing** 



**Shares of Purchasing** 

#### **EVALUATION AND SELECTION OF SUPPLIERS**

We require our suppliers and business partners to operate in accordance with the principles in the **Statement on Code of Business Ethics** we prepared based on Kordsa Code of Business Ethics. This code outlines our company's expectations for the undersigned conduct regarding labor and human rights, health and safety, environment, ethics, and management practices. Following the 2021 performance reviews and system audits, none of our suppliers scored less than 60 points.

The details on processes of supplier evaluation and selection are **here**.

## SUSTAINABLE SUPPLY CHAIN MANAGEMENT

### Supplier Sustainability Assessment Survey

As of the end of 2019, we have integrated the sustainability performance of suppliers into our current supplier evaluation system as an evaluation criteria.

We encourage our suppliers, who represent an essential link in our value chain, to improve their sustainability performance. We use different tools to measure and improve the sustainability performance of our suppliers within the scope we have determined based on risk analysis, Kraljic matrix studies and annual expense ratio assessment. Ecovadis, a globally widespread sustainability assessment tool, is one of our assessment tool. Ecovadis rating is carried out by assessing detailed questions covering policy, performance, and actions regarding Labor and Human Rights, Environment, Sustainable Procurement, and Business Ethics. In addition, we apply an annual "Supplier Sustainability Questionnaire," and we conduct quality and sustainability audits for our raw material suppliers within the scope of the "Annual Supplier Audit Program."

The sustainability topics we focus on with the assessment are;

- Sustainability Governance
- Social Impacts (Ethics, Labor and Human Rights, Occupational Safety, Conflict Minerals)

- Environmental Impacts (Environmental Management, Energy and Emission Management, Waste Management, Materials Management)
- Sustainable Supply Chain practices

If the performances of our suppliers do not match the determined criteria, we will encourage our suppliers to create performance improvement plans and introduce specific practices to ensure further improvements in those cases.

The success criteria of the supply chain sustainability program are monitored with the determined performance indicators. These indicators are reviewed quarterly by the Global Supply Chain and Sustainability Department. We share the detailed results of our assessments and auditing of social and environmental impacts in our supply chain in the 'Sustainable Procurement Performance Report.'

In the long view, we aim to expand our engagement with our suppliers, carry out one-on-one improvement studies starting with our global suppliers, and to increase the number of suppliers we reach.

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2021
2021
72.5%
87.5%
74

## SUSTAINABLE SUPPLY CHAIN MANAGEMENT



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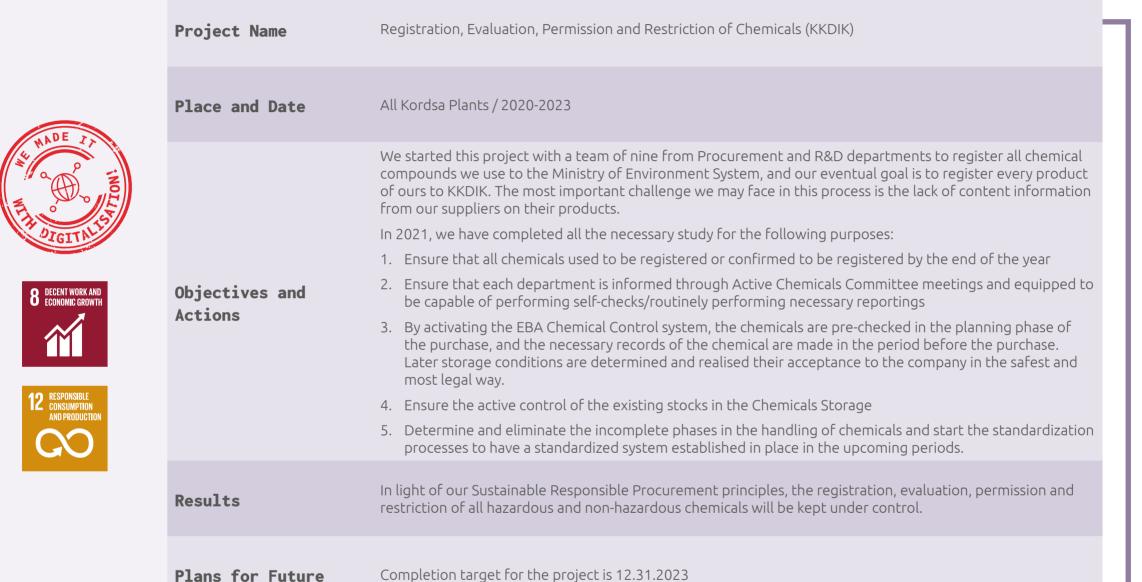
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## **ENVIRONMENT AND CLIMATE**



One of the seven values underlying Kordsa's growth strategy is to 'protect the environment'. We strive to sustain this value with our 'make better with less resource' approach since the day we were established, and we reinforce life while increasing our economic competitive power. 54% of our plants have ISO 14001 Environmental Management System Certificates.

We invest in clean technologies to ensure efficient use of energy, reuse our materials, reduce emissions and other wastes along with reduction in water consumption; and in continuous improvement projects together with our R&D and production teams to increase recycled material usage ratio and to use bio-based materials.

In 2021, our environmental investments and expenditures such as emissions management, waste recycling, waste disposal, consultancy, training and project investments totaled over 1.57 million dollars. We have not received any fines or penalties due to an environmental incompliance in any of our premises in 2021. In 2021, our employees received 47,083 man-hours total of occupational health safety and environment training.

#### **AWARDS and ACHIEVEMENTS**

## Kordsa is among the three Turkish companies placed in the "A" List of CDP Water Program!

In the Carbon Disclosure Project (CDP), Kordsa has once again increased water program grade in 2021 and been included in the Global "A" List, which includes 118 companies around the world.

### Kordsa's CDP Climate Change Supplier Engagement Score is "A"

Kordsa secured its 2020 grade "A-" in CDP Climate Change Program and was awarded another "A" grade within the scope of CDP Supplier Engagement Rating, evaluating the extent to which companies include their suppliers in climate change mitigation.

#### **GRS Global Recycle Standard Certificate**

In 2021, the tire cord we manufactured using recycled nylon yarns for used in tire reinforcement technologies were offered to our business partners

We have obtained the Global Recycled Standard (GRS) certification for our recycled content products.

#### **INVESTOR VIEW**

Kordsa is managing the efficient use of resources meticulously. Examples of these are; the reuse of millions of pieces of material in the facilities and the minimal levels of chemicals use despite the everincreasing production capacities. A sign of the company's genuine environmental concerns, this efficient policy that is executed in coordination across the company's premises in different continents not only adds the company a considerable economic value, but also brings a management mentality along with it that results in a win-win management approach.



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## RAW AND OTHER MATERIALS MANAGEMENT

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KORDSA SUSTAINABILITY REPORT

#### INTERNAL STAKEHOLDER VIEW

%68 of our employees who responded to the sustainability assessment survey think that...

Kordsa's practices for efficient use of raw materials are adequate.

#### RAW and OTHER MATERIALS MANAGEMENT

Selection and efficient use of raw materials rank among the top indispensable elements of sustaining our production. Raw and other materials expenditures constitute about 61% of our total procurement.

As a result of monitoring our material usage performance and our efficiency efforts, we achieved significant improvements in the use of chemicals rates at our plants between 2014-2017. Despite capacity optimizations in USA, Brazil and Indonesia and R&D programs implemented in Turkey, no significant increase in our chemical usage was detected. In many of our sites, we were able to decrease chemical usage.

The materials and chemicals usage data of our plants and the reduction performances are given in the **Environmental Performance Indicators** part of our report.

#### Performance in 2021

In 2021, we implemented chemical reduction project in our Indonesia plant. The project not only reduced chemicals by 3.5% but also gained 320,000 dollars of savings.

Besides our ongoing projects on the reuse and reduction of the use of materials and especially the chemicals, this year we carried out new studies such as the usage of recycled raw material in production and recovery of acetone. The details of these studies are available on the following pages.

As Kordsa, we became a member of the Turkish Circular Economy Platform in 2021. Business Council for Sustainable Development Turkey (SKD Turkey) carries out the project developed by the European Bank for Reconstruction and Development (EBRD). Turkish Circular Economy Platform aims to fulfill the need for information/resources in the circular economy, offer measurement mechanisms, provide technical grants, and create collaboration opportunities.

The details of our raw and other materials management approach (Implementations and Control) are **here.** 

## RAW AND OTHER MATERIALS MANAGEMENT





### **Project to Reuse Materials**

In order to increase the reuse of yarn tubes; we started this project in Kordsa Turkey site in 2014. Since then, we contribute to the corporate budget and natural resource savings increasingly every year.

We added carton separators, steel shells and wooden pallets to this project alongside the tubes after having extended it gradually to our other sites. We bring the steel shells that go to our customers along with our products back to our plant after delivery and we reuse them. We maintain material efficiency by reusing the tubes, paper separators and wooden pallets that we use to organize the products at the plants.

We utilize these materials until they reach their end of life in the facility, and then sell them as scrap to be used in various other sectors, thereby contributing to circular economy.

In 2021, we saved 4.2 million dollars through reuse of 2.48 million pieces of materials in our facilities. The average reuse rate across all our plants was 22%. In the upcoming years we will continue to deploy this project to rest of our sites.

	REUSED MATERIALS (Reuse Ratios)				
	Materials	Plants	2019	2020	2021
		Turkey - İzmit	35%	50%	51%
م <del>ر</del> ام		USA -Laurel Hill	55%	86%	100%
(A)	Steel Shells	Indonesia	31%	41%	82%
		Thailand	86%	84%	82%
		Brazil	86%	93%	99%
Tubes		Indonesia	8%	28%	26%
	Tubes	USA - Chattanooga	8%	14%	0,1%
		Brazil	62%	84%	73%
Carton Separators		Turkey - İzmit	N/A	16%	18%
	Carton Separators	Indonesia	8%	13%	9%
		USA - Chattanooga	38%	38%	45%
<del></del>		Turkey - İzmit	N/A	33%	37%
	Wooden Pallets	Indonesia	N/A	19%	16%
		USA - Chattanooga	47%	73%	44%

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# RAW AND OTHER MATERIALS MANAGEMENT







Project Name	Recycled Nylon 6.6 Chip Usage for Nylon 6.6 Tire Grade Yarn& Fabric Production
Place and Date	October 2020-November 2022 / R&D İzmit-Turkey
	Within the scope of sustainability studies for nylon 6.6 polymer over the world, reverse engineering and recycle of the materials are the most common methodologies. Recycled material usage is reputable on behalf of our customers and beneficial for environmental protection.
Objectives and Actions	In this project, we transform our production scraps through our recycle machine into chips and reuse them in the production as recycled input.
	It is aimed in this project to produce tire grade yarn with min 20% amount of recycled nylon 6.6 polymer and has comparable physical and chemical properties with yarn that is produced with virgin nylon 6.6 polymer.
	<b>Economic:</b> Project is on the sample evaluation phase on the customer side, so that there are no economic results for now
Results	<b>Environmental:</b> According to Life Cycle Analysis (LCA) compared to using 100% virgin raw materials, the 20% recycled content provides 17% less carbon footprint.
	<b>Corporate:</b> Recycled nylon yarn by Kordsa achieving Global Recycling Standard certification, are used in the production of cord fabric to strengthen the tires. With the development of this product, the goal is to contribute to making 100 million vehicle tires with lower environmental impacts.
Plans for Future	We plan to increase the recycle polimer amount in the product. We are searching for post-consumer recycled raw material supply. We will also search for bio based, biodegradable, semi biobased Polyamid (PA) materials inline with 2050 sustainability goals.





Project Name	Recovery of Acetone and Other Solvents Project
Place and Date	Kordsa CTCE Waste Area / 2020-2021
Objectives and Actions	Acetone is a chemical highly consumed in the cleaning processes in CTCE (Composite Technology Center of Excellence) production operations. It not only has a high financial cost, but also has an exceedingly high environmental impact. Besides, its destruction as a waste also incurs extra costs.  With the regaining of acetone and other solvents, we both reduced the amount of our chemical waste and
	had savings on the costs.
Results	<b>Environmental:</b> Thanks to an 88% of material regain, our waste has been reduced by the same amount.
Veantra	<b>Economical:</b> We reduced our material and waste removal costs dramatically.
Plans for Future	We will plan the capacity increase of the system and its deployment to other sites.

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## **ENERGY MANAGEMENT**

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KORDSA
SUSTAINABILITY REPORT
2021



### INTERNAL STAKEHOLDER VIEW

%66 of our employees who responded to the sustainability assessment survey think that...

"Kordsa's investments and projects to assure energy efficiency are adequate."

#### **ENERGY MANAGEMENT**

Our goals of energy efficiency and using less energy per unit product we produce is strategically important for our company. At Kordsa, electricity, natural gas and steam are the main types of energy we use as input for production.

Energy Committee, which consist of white-collar employees and Maintenance and Auxiliary Facilities Group Manager as energy representative, measures and monitors energy use based on ISO 50001 Energy Management System, prepares energy reports, and manages energy reduction projects. The energy committee aims to improve energy efficiency by at least 1% every year compared to the previous year.

We monitor our energy consumption trends by plants and manufacturing processes with 2013 data as the baseline. Energy consumption is not directly affected by the increase or decrease in the amount of production. The energy consumption can remain constant in either case. On the other hand, product mix (content) in production has direct effect on energy consumption. We are tracking the parameters such as Dtex, speed, scrap, and unit rates monthly, and go over the changes in the BPR meetings with

the participation of all related managers.

Following the significant improvements between 2011-2014 period, we reduced natural gas consumption in all our facilities from 2014 to 2017 by 43-51% thanks to our efficiency projects.

#### Performance in 2021

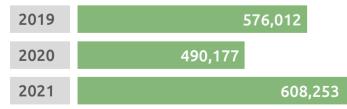
In 2021, our electricity consumption increased by 24% and our natural gas consumption increased by 18% compared to 2020. Compared to 2019, our electricity consumption increased by 5% and our natural gas consumption increased by 3%.

We manage energy topic under Environmental Policy. Details of our environmental management approach (Implementations and Control) is **here.** 

Details of Energy Management Approach (Implementations and Control) are **here.** 

Energy consumption data is here.

#### **Electricity Consumption (MWh)**



### Natural Gas Consumption (Million Sm<sup>3</sup>)

2019	62.4
2020	54.3
2021	64.5

### Diesel Oil Consumption (liter)

2019	314,956.57
2020	254,744.83
2021	592,837

### Gasoline Consumption (liter)

2019	125,388.75		
2020	109,869.15		
2021	94,859		

### LPG Consumption (kg)

2019	40,407.38		
2020	35,198.85		
2021	33,145		

## **ENERGY MANAGEMENT**





Project Details	Site Name	Estimated Annual Savings	Savings Unit	
Tire Cord Fabric Facilities Lighting LED Conversion	Turkey	37,055.00	kWh/year	
Tire Cord Fabric Warehouse Lighting LED Conversion	Turkey	31,536.00	kWh/year	
"Quench fan and RxB heater energy improvement"	Turkey	509,760.00	kWh/year	
"T1-T2 (finishing unit) drying ovens fan drive project"	Turkey	280,000.00	kWh/year	
Energy Saving Lighting from Greige & Dip Fabric Warehouse	Indonesia	82,825.00	kWh/year	
Lighting LED Conversion	USA - San Marcos (AHT)	22,464.00	kWh/year	
Total Saving		963,640.00 kWh/year		



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Energy Saving Projects (Natural Cas)					
Project Details	Site Name	Estimated Annual Savings	Savings Unit		
Evaporator Steam Recovery System	Turkey	2,036,213.00	kWh/year		
Reduce Energy Consumption with Ecodip	Indonesia	2,236,441.00	kWh/year		
Reduce Energy Consumption with Ecodip	Thailand	900,012.00	kWh/year		
Total Saving		5,172,666.00 kWh/year			

**Energy Saving Projects (Natural Gas)** 

## **ENERGY MANAGEMENT**







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## **EMISSIONS MANAGEMENT**

### INTERNAL STAKEHOLDER VIEW

%61 of our employees who responded to the sustainability assessment survey think that...

Kordsa's projects and preventive measures to monitor and reduce emissions are adequate.

#### **EMISSIONS MANAGEMENT**

We are targeting to reach net zero emission by 2050 the latest in order to limit the global warming to 1,5°C. We committed to the global Science Based Targets Initiative in 2021, Our CDP score remained A- in 2021.

### Responsibility

Within Kordsa's sustainability management structure, all units starting from the Board of Directors assume duty and responsibility for the definition of strategies and taking of the necessary actions to combat climate change.

### Risk Management

We monitor the climate change risks within the risk analysis works that are run by the Early Detection of Risk Committee under The Board of Directors. We systematically assess possible legislative changes that may take place in the transitional period to low carbon economy as well as the risks and opportunities that may arise from extreme weather conditions due to climate change or the changes in customer preferences. A detailed analysis of our risks and opportunities in climate change scope is available in **CDP Climate Change** Program Report.

### The Steps We Took in Combatting Climate Change

In 2014, we started calculating our greenhouse gas emissions in Kordsa Turkey, approved by the Ministry of Environment in line with the GHG regulations.

In 2015, we commenced Scope 1 direct emission calculations in our Indonesia and Thailand facilities.

In 2016, we started Carbon Disclosure Project (CDP) Climate Change reporting.

In 2017, we completed Scope 1 direct emission calculations in all our facilities.

In 2018, we began Scope 2 emission calculations.

In 2019, we completed Scope 1 and Scope 2 emission calculations for 2018-2019 in all our facilities. Three of our facilities, in Turkey, USA-Chattanooga, and Indonesia respectively, were subjected to external audit for our Scope 1 and Scope 2 emissions.

In 2020, raising our CDP rating to A-placed us among Turkey's Climate Leaders.

We started calculating our Scope 3 emissions. Scope 1, 2 and 3 emissions data of our three facilities in Turkey, USA-Chattanooga and Indonesia were subjected to external audit.

Axiom Materials Inc., Kordsa's composite manufacturing subsidiary in Santa Ana California, was certified as the world's first carbon neutral prepreg manufacturer in 2020.

In 2021, we protect our CDP Climate Change Program score of A-placed us among Turkey's Climate Leaders one more time. Scope 1, 2 and 3 emissions data of our three facilities in Turkey, USA-Chattanooga and Indonesia were verified by external audit. We comitted to the Science Based Targets Initiative to support the limiting of global warming to 1,5°C.

In 2021, The Sabancı Volunteers carried out a campaign effort to mark the 98th anniversary of the Republic of Turkey. As a pioneer in sustainability, Sabancı Group launched Sabancı Republic Day Campaign to ensure a better future for the new generation as well as the environment, and of course, to defend the legacy of Atatürk. As part of the Sabancı Republic Day Campaign, we as Kordsa participated in events which promoted climate emergency awareness and supported education alongside 7.000 voluntary employee in 11 provinces.

We manage emissions topic under Environmental Policy.

Details of our environmental management approach (Implementations and Control) is here.

Details of our emissions management approach (Implementations and Control) is here.

Emissions data is here.



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# **EMISSIONS MANAGEMENT**







Kordsa CDP Climate Change Report is here.

GHG EMISSIONS (tCO <sub>2</sub> e)	2019	2020	2021
Scope 1	128,875.99	113,544.12	134,159.86
Scope 2	294,806.85	249,155.85	268,469.67
TOTAL*	423,682.84	362,700.12	402,629.53
*In 2021, we achieved 5% reduction in Data scope: All Kordsa plants	in our Scope 1 and Scope 2 emissions compared to	the 2019 base year.	

GHG EMISSIONS (tCO <sub>2</sub> e)	2019	2020	2021
Scope 3	n.a	1,153,662.95	2,038,837.72
TOTAL*	n.a	1,153,662.95	2,038,837.72
* In 2021 we included category 10 and category 12 in our Scope 3 calculation Data scope: All Kordsa plants			

**Scope 1 Data Includes:** Natural gas, generators & pumps, cooling gases, fire extinguishers, C6- Business Travel company vehicles.

Scope 2 Data Includes: Electricity

Scope 3 Data Includes:

C1- Purchased Goods and Services

C3- Fuel and Energy Related Activities (not reported under Scope 1 and 2)

C4- Upstream Transportation and Distribution

C5- Waste Generated in Operations

C7- Employee Commuting

C9- Downstream Transportation and Distribution

C10- Processing of Sold Products

C12- End-of-Life Treatment of Sold Products

C13- Downstream Leased Assets

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# **WASTE MANAGEMENT**



## INTERNAL STAKEHOLDER VIEW

**%67** of our employees who responded to the sustainability assessment survey think that...

Kordsa's practices to manage waste and wastewater to prevent environmental pollution are adequate.

## **WASTE MANAGEMENT**

In Kordsa sites, disposal, recovery and reuse of production wastes and wastewater as specified by law are among our regular activities. We dispose 100% of the wastes generated in our facilities by recycling, reclamation, landfill, incineration, and direct disposal in accordance with national regulations.

As of 2021, we determined our waste management performance indicator as the amount of waste generated per total unit sales tonnage. As Kordsa, we are targeting to reduce our waste amount per total sales tonnage by 50% by 2030 in comparison to the base year 2018.

## 2021 Performance

In comparison to the base year 2018, our waste amount per ton of sales unit indicator in 2021 has gone up by 12.2%.

In this reporting period, we continued to reuse some of the materials that could otherwise be wasted, hence not only do we use our corporate resources effectively, but also prevented environmental pollution.

In 2021, we began the waste mapping studies for waste reduction by assigning teams in all our plants. In pursuit of project studies we will began with each unit one by one toward the waste reduction according to their waste maps.

We manage waste topic under Environmental Policy.

Details of our environmental management approach (Implementations and Control) is **here.** 

Details of our waste management approach (Implementations and Control) is here.

Our waste data according to disposal methods are here.

Waste Intensity	Year	TOTAL _	
	2021	0.05349	
Total Waste	2020	0.04767	
Amount / Sales Tonnage (ton/ton)	2019	0.04419	
	2018	0.04534	
Data scope: All tire reinforcement plants			

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# **WASTE MANAGEMENT**



# Kordsa's Contribution to Circular Economy

Since 2014, we recycle scraps that come out in Nylon 6.6 yarn production facilities into pellet form at Kordsa Turkey and turn them into a raw material for engineering plastics industry. Those plastic raw materials provide zero-emission raw material input in various sectors and are turned into a variety of products in industries such as automotive and white appliances, thereby regaining them into the economy. We received the Global Recycled Standard (GRS) certificate for our products recycled materials, which we obtain by recycling our scraps.

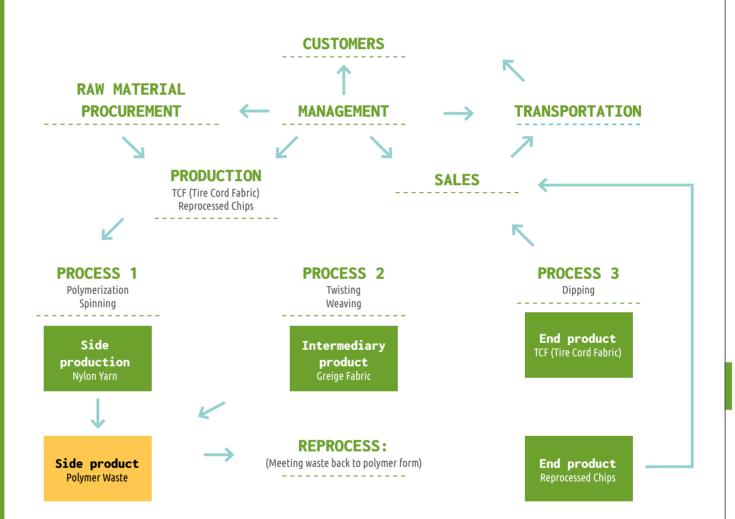
## Results and Gains

**Economic:** We turned Nylon 6.6 yarn scraps into a high value-added product. Our revenue from the sales of the recycled granule reached approximately 30 million dollars to date.

Most of these products are being used by the manufacturers in Turkey. Since the local engineering plastics manufacturers can obtain these materials locally, there has been a drop in Nylon 6.6 import, which resulted in manufacturers' reduction of costs and increase in profitability. We contributed to our country's economy by being instrumental in this new chain.

We started compounding R&D studies in order to add more added value to the granules we obtained from Nylon 6.6 yarn scraps.

**Environmental:** Until 2018, recycling was available only in our Turkey site. Hence, we included our other facilities in the process. In 2021, we gained about five thousand tons of polymer waste to the circular economy on a global scale.





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# **WASTE MANAGEMENT**









# Global Strategic Cooperation for Plastic Recycling

Kordsa became a part of a new project named PolynSPIRE: Demonstration of Innovative Technologies Towards A More Efficient and Sustainable Plastic Recycling, under the European Union's "Horizon 2020" R&D and innovation program along with twenty-two partners. The project is initiated to strengthen research and technology-development capabilities in Europe while encouraging university-industry collaboration.

In the 48-month period of the PolynSPIRE project, it is expected that three innovations covering the

TRL7 level are initiated, 60 kilotons of plastic waste is recycled, 300 kilotons equivalent CO<sub>2</sub> emissions are reduced, and 70 kilotons oil equivalent fossil resources are saved. Targeted impacts in 20 years are treating annually 4.5 million tons of residue, reducing 45 million tons of CO<sub>2</sub> emissions per year and recovering 10 million tons of oil equivalent of fossil fuel per year.

PolynSPIRE project which is consisting of three periods, As of September 2021 completed its second period and the updates were shared with the European Union. The comprehensive studies on recycling technologies continued throughout 2021.

# **EXTERNAL STAKEHOLDER VIEW**

Within the scope of Horizon 2020 polnySPIRE, Istanbul Chemicals and Chemical Products Exporters' Association (İKMİB) and Kordsa are partners of the project from Turkey.

We know that Kordsa is a company that aims to create sustainable value for all its stakeholders and society. It has a strong team in this field and works on critical issues such as climate change. Kordsa has been awarded the Gold rating for sustainability by Ecovadis.

While carrying out its activities, Kordsa takes the opinions of all its stakeholders and tries to create social and economic benefits for them. This makes Kordsa a reputable and pioneer in our eyes.

Their works, such as Sustainability Roadmap 2050 and Sustainability Reports, are really important. More companies and institutions need to work in terms of sustainability. We wish Kordsa to continue this work and to encourage other companies as well.

Project Expert/ İKMİB



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# WATER MANAGEMENT

# **INTERNAL STAKEHOLDER VIEW**

**%66** of our employees who responded to the sustainability assessment survey think that...

Kordsa's practices to manage and efficiently use water resources are adequate.

## **WATER MANAGEMENT**

Water use is extremely important for the manufacturing processes at Kordsa plants and auxiliary operations. Water quality, accessibility and preservation of usable water resources are critical for the sustainability of our production and cost control.

In all our operations, we treat all the water we use at water treatment plants before discharging it to river or any local government piping mandated by local authorities. Our investments ensure that our water treatment capacity will meet the demand of future expansions. At all plants and offices, we put efforts to use water more efficiently, we encourage industrial reuse of treated water.

As of 2021, we determined our water management performance indicator as the amount of water withdrawal per total unit sales tonnage. In comparison to the base year 2019, our water withdrawal per total sales tonnage decreased by 20%.

# Responsibility

In line with Kordsa's sustainability management, all units starting from the Board of Directors assume duty and responsibility for the definition of strategies and taking the necessary actions on water management.

## Risk Management

We monitor the water related risks across all our facilities within the corporate risk management framework. In water risks, which we regularly review many times throughout the year, we evaluate the risks that may occur in the short (0-1 years), medium (1-5 years) and long-term (5-35 years). Among the tools we use in these assessments are the World Resource Institute (WRI) Aqueduct water risk mapping app, COSO Corporate Risk Management Framework and ISO 31000 Risk Management Standard. The details of all risk areas are available in CDP Water Program 2021 Report.

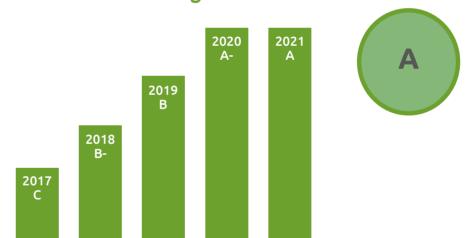
## Our 2021 Performance

In the Carbon Disclosure Project (CDP), which we have been reporting since 2016, we have once again increased our water program grade in 2021 and have been included in the Global A list, which includes 118 companies around the world.

Details of our water management approach (Implementations and Control) is here.

Our Water Policy is here.

# 2021 CDP Water Program Leader



Kordsa CDP 2021 Water Security Report is located here.

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Rain Water and Air Conditioning Condensate Recovery (Turkey) **Project Name** 

Objectives and Collecting rainwater from Line1 roof drains and air conditioning system condensation water as make-up in Actions

cooling towers in auxiliary facilities

10,000 m³/year water-saving **Results** 

**Project Name** Reverse Osmosis (R/O) Installation (Turkey)

Objectives and Installation of new R/O filtration system in order to reuse the wastewater generated at the outlet of the main Actions

R/O.

70,000 m³/year water-saving Results

**Project Name** Dipping Process Finishing Water Jet Water Recovery (Turkey)

**Objectives** Ensuring the recovery of water in finishing water jet in dipping units

2,500 m³/year water-saving **Results** 

Re-Use of Condensate Water (Indonesia) **Project Name** 

To reduce the water consumption from the river, reduce the chemical consumption and electrical **Objectives** 

consumption of the pump

2,200 m³/year water savings Results







# **WATER MANAGEMENT**

WATER WITHDRAWALS	2018 (m³)	2019 (m³)	2020 (m³)	2021 (m³)	2018-2021 (%)
Fresh Surface Water	2,556,608.39	3,166,771.64	2,035,366.39	2,735,498	7.00%
Groundwater-Renewable	544,604.00	658,350.00	633,601.00	657,425	20.72%
Third Party Sources	381,446.25	260,599.75	231,408.91	262,813	-31.10%
TOTAL WITHDRAWALS	3,482,658.64	4,085,721.39	2,900,376.30	3,655,736	4.97%

	2018 (m³)	2019 (m³)	2020 (m³)	2021 (m³)	2018-2021 (%)
RECYCLED WATER (m³)	189,437.00	181,671.00	184,101.00	219,127.00	15.67%

2018 data includes all plants except the four new composite sites. 2019-2020-2021 data includes all plants.

Water Withdrawal Intensity	Year	Total
	2021	14.73
Withdrawal / Sales Tonnage (m³/ ton)	2020	14.87
	2019	18.51

Data scope : All tire reinforcement plants.



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# **EMPLOYEES AND COMMUNITY**



At Kordsa, we practice equal opportunities from recruitment to retirement policy, providing equal work environment for all. We support our approach by complying with the principles of international initiatives.

Diversity and cultural differences in our global human resources constitute the foundation of our corporate culture in Kordsa. We manage all human resources issues by taking the local approaches and practices and global trends into consideration.

We continued uninterruptedly to provide for our 4,800 strong human resource in five countries, including our subcontractors, a healthy and safe work environment that supports their productivity, protects their rights as human beings and employees, and invest in talent development as necessary to maintain their long-term employment.

At Kordsa, with our volunteer employees' participation, we undertake projects that support the education of children and youth irrespective of their gender or their income level, and therefore reinforce their future in regions where our facilities are located.

### **AWARDS and ACHIEVEMENTS**

## Double Awards for Kordsa in TÜSİAD SD<sup>2</sup> Program

Kordsa won the International Competitiveness category with the "Control of Limited Area and PPE for OHS" project conducted in collaboration with Intenseve. The project also received the Vodafone Award from TÜSİAD SD<sup>2</sup>'s Gold Sponsors, Vodafone, from among 9 participant projects.

## Kordsa Indonesia Plant Receives TPM Excellence Award

Kordsa's Indonesia plant was awarded the TPM Zero Defects Award by the Japan Institute of Plant Maintenance.

## Kordsa Brazil Plant Receives TPM Excellence Award

Kordsa Brazil was awarded the gold medal as The Best Textile Company in Brazil, and silver medal as The Best Company to Work for in Brazil by São Paulo University Business Institute Foundation (FIA) and Universe Online (UOL).



### CUSTOMER VIEW

Kordsa' objectives in terms of gender equality or quality education have been very well recognized and much appreciated.

Tire Reinforcement Customer



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# OCCUPATIONAL HEALTH AND SAFETY

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# INTERNAL STAKEHOLDER VIEW

%86 of our employees who responded to the sustainability assessment survey think that...

Kordsa takes necessary measures sufficient to oversee and secure health and safety of its employees.

## OCCUPATIONAL HEALTH AND SAFETY

Health and safety of our employees comes first among our company's strategic sustainability priorities. The common and only goal of all our people and departments in charge of occupational safety is to attain zero occupational accident and zero occupational disease. We are aiming to hit this target by establishing the behavior centered occupational health and safety consciousness culture in all our employees.

We implement "The 10 Golden Rules of Occupational Safety" to prevent employee injuries across all our sites. We renew the process hazards researches every three years. We have Occupational Health and Safety Committees in all our facilities with the same operating structure. 100% of our workforce is represented in these committees.

Majority of project ideas on occupational health and safety improvements originate from our employees. We took precautions against accidents thanks to our employees' ideas.

## 2021 Performance

During the reporting period, no fatal accident and/or occupational disease has occurred at any Kordsa facility or any of its subcontractors.

In 2021, our total recorded accident was 13, 11 of which from among our employees and 2 among our subcontractors. In all of our plants the Lost Time Injury Rate Total (LTIR) was 1.15, Employees Lost Time Injury Rate was 1.27 and Contractors Lost Time Injury Rate was 0.62. In 2021, we provided our employees with 36,969 man-hours of health & safety training. The ratio of overall HSMS certified operations is 9.09% representing İzmit facility.

Details of our Occupational Health and Safety Management Approach (Implementations and Control) is here.

Data on Occupational Health and Safety performance by country are here.

Details of Occupational Health and Safety Committees are here.

OHS Training Hours	Kordsa	Contractor	OHS TRAININGS	
Turkey - İzmit	12	8	In 2021, we	
Turkey - CTCE	6.6	8	provided our employees with	
Brazil	26	3	trainings under over 20 topics in	
Indonesia	4.5	3	general, health	
Thailand	4	8	and technical categories,	
USA - Chattanooga	17	3	ranging from legal rights and	
USA - Laurel Hill	2	1	responsibilities to biological and	
USA - Quakertown (FDI)*	5	5	psychosocial risk	
USA - Anaheim (TPI)*	6	6	factors, from first aid to electrical	
USA - San Marcos (AHT)*	2	1	dangers, risks and how to prevent	
USA - Santa Ana (Axiom)**	10.4	5	them.	

CTCE: Composite Technologies Center of Excellence

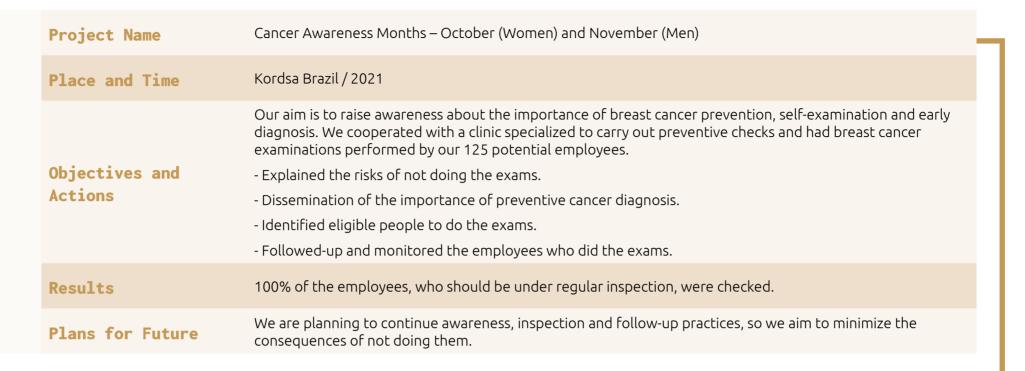
\* Composite companies joined Kordsa in 2018

\*\* Composite company joined Kordsa in 2019



# OCCUPATIONAL HEALTH AND SAFETY

GENDER Equality



	Project Name	Monitoring WHS Rule Violations with AI-Assisted Image Processing Technology
DE.	Place and Time	Kordsa İzmit Facilities / 2020-2021
IN SOLL IN SOLL IN SOLL IN SOLL IN SOLL IN SOLL IN SOLL IN SOLUTION IN SOLUTIO	Objectives and	As part of TÜSİAD SD² Transformation in Industry Program, we started to work on creating warning and reporting of OHSE violations via processing surveillance camera images according to a programmed set of rules and tolerances in artificial intelligence algorithms.
JIGITALIS .	Actions	We achieved the mapping of rule violation intensity, elimination of the violations via instantaneous warning information and conclusion of the predefined actions, and tracking of the impacts, and evaluation of the effectiveness of corrective actions.
8 ECONOMIC GROWTH	Results	We made the OHSE compliance status in a defined area monitorable and trackable on a 24-hour basis. As well as supervising COVID-19 countermeasures, we prevented the violations of work health and safety and the consequential work accidents.
	Plans for Future	We are planning to spread this scheme on other facilities in 2022.



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# OCCUPATIONAL HEALTH AND SAFETY

# Total Productive Maintenance (TPM) Integration

TPM integration launched in 2015, is regarded as one of the most essential initiatives under sustainability management because of the positive economic, social, environmental and corporate benefits it generates.

## Activities in 2021

We continued TPM activities online under the effects of pandemics and supported it with local consultancies. We maintained an active information sharing between the sites via global networks in this period.

## Turkev

In 2021 we focused studies on active pillars. We intensified our works on the newly established topics, Early Equipment Management and Early Product Management. We began the 5th step works that aim to optimize cleaning, lubrication, and compacting times in autonomous maintenance processes. Within this scope, our site operators received process trainings and increased their skill sets on their machinery. We observed improvements in scraps by courtesy of the works the quality maintenance focused on. The sustainability targets given to the Planned Maintenance and Occupational Safety, Health & Environment pillars were supplemented with focused improvements.

### Indonesia

Received the excellence award for TPM given by Japan. Besides, we also began the 5th step autonomous maintenance processes that aim to optimize cleaning, lubrication, and compacting times as well as increasing process knowledge. The activities in Indonesia are continuing seven active pillars.

### Brazil

We began preparations for TPM award applications. In this direction, we began 4th step autonomous maintenance trainings and applications that will improve the field operatives' skill sets.

### **Thailand**

We began preparations for TPM Award applications. Active works in TPM 6th pillar are going on.

### ABD-Chattanooga & Laurel Hill

We actively continued the works in autonomous maintenance, planned maintenance and focused improvements.

### Composite (USA)

We continued the 5S works and established plans for the application of the first 3S. We provided training on various discrete tools applications.

## Composite (EMEA)

We continued the 5S and autonomous maintenance works.

### Our Future Plans

We will keep up with the trainings where the pillars of the TPM are explained in detail to broaden the awareness and increase the leadership among all our employees in our plants. In addition to these, we will actively follow TPM committee structures and ensure the effective use of TPM by offering improvements where required. We are aware of the benefits of TPM. We will build our muscles in global information exchange and continue our TPM journey as the entire Kordsa by benefiting from each other's knowledge.

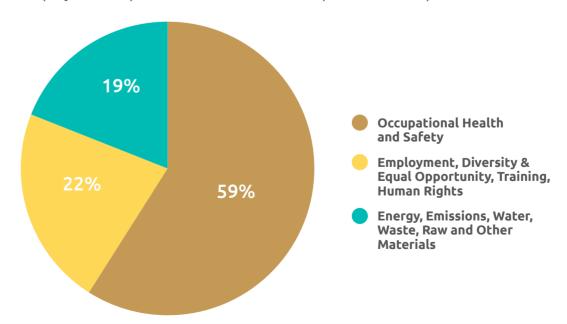
# **Employee Suggestions for Operational Excellence**

The classical suggestion system which was transformed by TPM integration continued to be available on the Kaizen portal since 2019. We defined constraints and acceptance criteria in the Kaizen suggestion system; and because of this we observed a drop in the number of Kaizens while the quality is improved. We formed a new marking systematics by preparing a points matrix.

We had planned to begin reviewing all the improvement suggestions all employees across Kordsa's premises would submit including our sustainability priorities on this global portal from 2020, but we could not put this plan in practice due to pandemics.

In 2021, we recieved, 3,287 improvement suggestions from our employees in Turkey, Indonesia, Brazil and Tayland. While 1,966 of the suggestions were about 5S, TPM, product quality, equipment efficiency, 59% of the 1,318 suggestions regarding our direct sustainability priorities were about occupational health and safetv.

In 2021; Indonesia, Turkey and Thailand TPM teams won two All Stars awards with projects on operational effectiveness and production scrap reduction





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# **HUMAN RIGHTS**



## INTERNAL STAKEHOLDER VIEW

**%81** of our employees who responded to the sustainability assessment survey think that...

Kordsa's policies, trainings and audits on human rights in its locations are adequate.



### **HUMAN RIGHTS**

At Kordsa, we aim to comply with Universal Declaration of Human Rights and all regulations in the countries of operation and look after all rights of our employees by adopting the international declarations, conventions, and principles that our country is a party too.

Our approach towards our people is honest and fair. We commit to a nondiscriminative working environment for all, making sure our people enjoy their employee rights fully and properly. We also monitor and maintain protection of human rights for our sub-contractors and suppliers in the value chain through Supplier Sustainability Evaluation Survey and the supplier contracts.

Details of our Human Rights Management Approach (Implementations and Control) is here.

Please click **here** for Kordsa Human Rights Policy.

### 2021 Performance

During the reporting period, we did not receive any complaints regarding human rights violations or discriminative practices at any of our locations. In 2021, 1,559 employees took average 2.36 hours of ethics trainings which is include human rights content. We did not receive any complaint regarding discrimination, harassment, mobbing, child and/or forced labor or human rights violations through our ethics hotline in this year.

In Turkey, Indonesia and Brazil, the ratio of total number of employees under any type of collective agreement with respect to total number of blue-collar workers has reached 61% in 2021, totaling to 2,094 employees. Our employees in USA. Thailand and China are not unionized. There has been no incidence of violation for freedom of association in 2021. Our operations do not bear any apparent and significant risk concerning these issues.

Topic Covered by Collective Labor Agreement	Turkey	Indonesia	Brazil
Occupational Health and Safety	√	√	√
Working Conditions (work-rest hours, leaves)	√	√	√
Training	√	$\checkmark$	-
Career Management	-	√	-
Employee Representatives' Tasks and Responsibilities	$\checkmark$	√	-
Additional Work Payments	√	√	√
Employees with Collective La	bor Agreement	(2,094)	
Turkey	802	38	3%
Indonesia	967	46	5%
Brazil	325	16	5%

Location	Indonesia
Name	Bipartite Discussion
Frequency	Monthly
Target Group	Labor Union
Participation	About 20 people
Purpose	To sustain the collaborative and smooth relationship between the Management and Union.

Location	Thailand
Name	Welfare Committee
Frequency	Bimonthly
Target Group	Representatives of each department
Participation	15-20 people
Purpose	To discuss issues on employees' work-related welfare and benefits, satisfaction from internal services  To act as a communication bridge with top management

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# INTERNAL STAKEHOLDER VIEW

%78 of our employees who responded to the sustainability assessment survey think that...

At Kordsa, the communication channels for employees to share their ideas and opinions with the management are adequate.

### **EMPLOYMENT**

We see our human resources as the most valuable capital of Kordsa. From recruitment to retirement our priorities are to secure their health and safety, to enhance personal and occupational development and to provide them with a pleasant work environment where their employee and human rights are fully assured.

## **Employee Satisfaction**

We monitor our employee satisfaction through employee engagement surveys, roundtable meetings with the CEO and ELT where they listen to employees' opinions and receive their feedback and with white-collar / bluecollar interaction meetings.

In our employment satisfaction survey that we perform biennially in cooperation with an external consulting firm, our employee loyalty ratios increased from %44 of 2014 base year to 62% in 2016 and 68% in 2018. The next survey that has been planned for 2020 has been postponed to 2021 due to the pandemics.

In 2021, out of the 830 office employees who were invited to participate in our Employee Engagement and Experience survey, 777 replied and the participation rate was 94% where engagement rate was 62%. Our permanent goal is to maintain a rate above 65% in employee loyalty survey across all our facilities and offices continuously.

### **Performance Evaluation**

100% of all Kordsa employees are subject to regular performance and career development evaluations. As Kordsa, we support career development plans of our employees, measure the leadership styles of the our managers, and evaluate the climate they provide to the organization regularly. With international assignments all over 5 countries, we provide employees with the opportunity to work with different cultures and support them. We measure the success of our employees with different incentive systems, reward and recognize them in a fair way.



### Perfx

We aim to make performance culture a part of working life and accelerate the deployment of the new performance approach across the company. Designed for this purpose, the new performance system Perfx was launched in 2020 in cooperation with SabanciDx. During the remote working period, we added Task Management and Push Notification functions to the system to reduce the negative effects that may occur in follow-up and to make performance monitoring sustainable. With the Task Management function, we aimed to support employees to manage their work remotely, inform their managers about their duties, and meet their deadlines.

## **Recognition and Rewarding**

At Kordsa we implement a fair and inspiring <u>recognition and rewarding</u> <u>strategy</u> to help retain the skilled, talented employees at all responsibility levels.

## **Internal Career Opportunities**

We provide overseas assignments to ensure the personal development of employees, and to develop a common corporate culture across all Kordsa sites. Currently, 22 of our employees, whom two of them are women, are positioned abroad for long term assignments.

### **Long Term Tenures**

The average employee tenure across Kordsa plants is 11 years. As of 2021, the longest period is 13,5 years in Thailand and Indonesia. Our employee voluntary turnover rate turned 12.7% in 2021.

Our Performance on Equal Opportunities and Diversity is **here.** 

Detailed data on employment and diversity is **here**.



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## **Sustainable Employement Policy**

Having considered the requests and feedback from our stakeholders, our HR department reviewed and revised the Kordsa HR Policy in 2020 and published it as **Sustainable Employement Policy** in 2021.

The new policy covers the following topics:

- ► Terms and Conditions
- ► Working and Living Conditions
- ► Freedom of Association
- ► Reasonable Working Hours
- ► Grievance Mechanisms
- ► Local Legal Compliance & Kordsa Requirements
- ► Capability Building
- ► Equal Opportunities and Ensuring Gender Equality
- ▶ Prohibitions Forced and Child Labor

### Future of Work

In this journey of transformation, we started with the vision of becoming an advanced material technology company, we started to integrate Sabancı Holding's "Future of The Business" Project in Kordsa rapidly. We are handling the Future of Business from many aspects beyond remote work. From agile working systems to work, life and health balance, from remote work to leadership, skill, and performance development, we are preparing our employees and Kordsa for the future with actions that will impact and transform our work culture in different dimensions.

With the works we carried out with Boston Consulting Group, we gathered these initiatives under seven titles (1-Smart working, 2-Physical and Mental Health, 3-Flexible and High-Performance Workforce, 4-New Talent and Skill Transformation, 5-Leadership That Touches Mind, Feelings, and the

Worker, 6-Agile and Digital Transformation, 7-Culture That Creates Common Purpose) and we will put our actions in practice in Turkey, Brazil and USA and then in the APAC territories. With this Project initiated during the pandemics period, we have taken a step to become one of the example establishments in the sector and around the globe.

We prepared and took our Remote Work Procedures into action in May 2020 in accordance with these works besides pandemics circumstances.

In 2021 we focused on remote work and agile organization topics. In 2022 we will focus on wellbeing, strategic workforce planning, reskill and upskill topics.

## All Stars Awards



Since 2006 at Kordsa, we reward successful projects, employees who take part in these projects, and high performing Kordsa plants globally and annually under 'All Stars Awards' scheme. All Stars is a Global Recognition and Rewarding practice run by Global Human Resources on top of local recognition and rewarding processes managed by each county's human resources teams.

Each employee is encouraged to participate with any project of her taste. The process starts at the end of each year. After evaluation by judging team. ELT reviews the results. Submission of projects and evaluation take approximately four months. All employees are invited to awards ceremony that takes place in the following year and the ceremony is broadcasted live through video conference.

In "2021 All Stars Awards", 37 out of a total of 128 projects participating in nine different categories, including the sustainability category, and 321 out of 923 people in the project teams won awards. A reward of approximately 100 thousand dollars was realized. In 2021, Human and Culture was also added to the prize categories.



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# Young Advisory Board

Young Advisory Reinforcers (YAR), as we call it in Kordsa, is a program we initiated in the last quarter of 2019 to be able to add the young generation's phenomenal energy and fresh point of view in our Executive Leadership Team (ELT)'s agenda and integrate their approach in ELT's strategic decision-making processes.

While acting like ELT's shadow with its diversity moving as one body and functioning as a cultural bridge between young colleagues and top management, YAR project will create a future value for the company while supporting in-company harmony and loyalty.

The team in this platform can suggest value creating projects where they can reflect their young points of view and continue their work. Besides, they can take part in projects recommended to them by our CEO.

With its supportive and galvanizing approach in line with Kordsa's entrepreneurial, courageous, passionate, and constantly progressing values, YAR is an important vehicle for the popularization of the methodology of agility Kordsa takes as fundamental, which creates a winwin situation for Kordsa, the Leadership Team, and the young employees.

While contributing to the strategic decision-making processes, YAR takes

place within important projects for Kordsa and has opportunities to develop themselves by working like a shadow of the ELT for a year and tap into their experiences and points of view in the process. This makes them a part of the management and the decision mechanism. In return, the ELT can feel the pulse of young generation by benefiting from their unorthodox points of view and create long-term value for the entire Kordsa employees.

Turkey was the pilot country for this program in 2019-2021. Due to pandemics we decided to extend the program for one more year which was normally planned only for one year. A team of seven was included in the program in 2019-2020 period, and a team of five in 2021.

Young Advisory Reinforcers team will set their own working principles, form their own agenda, bring project suggestions for the company or their own functionality, and will materialize them with addition of new members every year. In the meantime, the company management may come up to the YAR team with their own projects and share with them the subjects they will be asked to work on.

This project will be put in practice in all our locations globally in the upcoming years.



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## Flexxa (Kordsa Flexible Work Model)

Our flexible work model that we initiated to contribute to work life balance of our employees, to increase their happiness and support them to gain more control over work

schedule Flexxa was also very impactful in aligning with expectations of generations Y & Z and to enhance employee engagement.

### **Results and Gains:**

- Plays an important part in increasing employee motivation and facilitating their decisions to continue working for Kordsa.
- Enhances efficiency and competitive power, impacts positively to employer brand.
- Decreases late show up and absence ratios as a result of employee control over work schedule.
- Increases our service quality and eliminates stress and tension in the case when all positive factors go astray.
- Increases employee happiness and desire to go to work with a more content and healthier mindset.
- Shines out as an impactful working system in terms hiring and retention of skilled employees.
- We believe it will contribute positively to results regarding employee satisfaction and engagement.



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## Kordsa Reinforest

In 2016, we grouped processes of climate, culture, and engagement surveys under the roof of Reinforest brand and began to conduct our human resources activities with this internal brand's framework.

The Reinforest concept is derived from the words rainforest which regulates earth's climate, and our market placement Reinforcer, which represents Kordsa's reinforcement products. Reinforest is promptly embraced by our staff. We intend to empower our employees via Reinforest brand, which we developed by integrating Kordsa's reinforcer positioning with climate, culture and engagement components that interact and trigger each other, and with our practices that support it.





# **Regular Employee Engagement Meetings**

Location	Brazil
Name	Engagement Focus Groups
Frequency	Biannually
Target Group	Representatives of each department
Participation	About 70 people
Purpose	Share the engagement results and build together an action plan to get better results.

# **Regular Employee Engagement Meetings**

Location	Thailand
Name	Employee Engagement Driver Meeting and Chatroom
Frequency	Monthly / Everyday 3 pm-5 pm
Target Group	All employees
Participation	50-70 people
Purpose	To share employees' opinions about any issue in the company and find solutions together.

## **Regular Employee Engagement Meetings**

Location	Indonesia
Name	Intranet & 11 Information Boards
Frequency	Monthly / Occasionally
Target Group	Al Employees
Participation	Over 1,000 people
Purpose	To inform all updates of HR or related-HR information or company in general and available open positions.

## **Regular Employee Engagement Meetings**

Location	USA
Name	Off-site Quality Meeting
Frequency	Annually
Target Group	All employees
Participation	300+
Purpose	Business Information and team building

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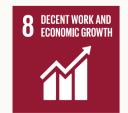






Project Name	Amazing Place to Work Awards
Place and Time	Kordsa Brazil / 2021
Objectives and Actions	Measure organizational engagement through employees' confidential answers and promote improvement actions based on organizational development needs.  Our target: >80% of engagement
Results	- Great Place to Work by the GPTW survey – 92% - Top 10 in Healthy Management by GPTW - Great Industry to Work in Brazil by GPTW – 7th - Amazing Place to Work by FIA survey – 92% - Amazing Place to Work in the Textile Industry by BIA – 1st
Plans for Future	Continue with surveys, keep the engagement growing and promote actions for employee satisfaction and happiness.





Project Name	Reinforcers Meet Up Online Meeting Series
Place and Date	All Kordsa Plants- Online
Objectives and Actions	This is a series of online meetings moderated by our CEO and CHR. These meetings have a different theme every time, we discuss Kordsa values and competencies with our employees on online platforms and listen to our leaders share their experiences. We encourage learning from each other. In some meetings we have speakers among our employees where we listen to their local professional or personal experiences.  This quarterly meeting was held only in Turkey in 2020 but we included white collar employees of all sites in 2021.
Results	We helped our employees internalize our values and competencies with examples regarding how to match competencies with behaviors and examples on which behavior is expected from employees under what circumstances. This type of sharing maintained a continuity in communication with our employees during pandemics.
Plans for Future	We will continue the series.

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# TRAINING AND DEVELOPMENT



# INTERNAL STAKEHOLDER VIEW

**%65** of our employees who responded to the sustainability assessment survey think that...

Kordsa's personal development and training programs provided for its employees are adequate.

### TRAINING AND DEVELOPMENT

As Human Resources Department, with our training and development teams at all Kordsa facilities, we implement various practices to align training and education activities, to meet local requirements and needs, and to support employees in realizing their career goals as they perform their duties safely and effectively.

We adopted the 70:20:10 development approach in order to add the new talents that will feed our growth targets into our organization and help them gain new competence, knowledge and skill acquisitions through various development opportunities. We believe that evolvement is best fed from experiences in this approach, apart from the experience of working with different cultures, we develop our employees with tools such as; through rotation, overseas work experience, and taking part in different projects.

In the 20% part of the model we have coaching, mentorship, participation in assessment centers, personal development planning and raising awareness through stakeholder opinions approaches. Beside these development tools, we support the acquisition of knowledge, skill and competency gaining process through in-class, online and offline trainings.

### 2021 Performance

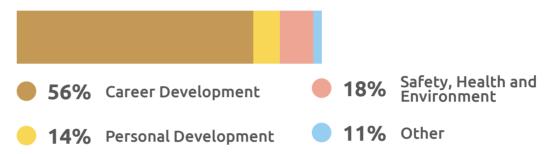
The total hours of training our employees received in 2021 reached 260 thousand hours. We provided 63 hours of training per person on average. The trainings mainly focused on career development topics by 56%. In 2021, we invested 6,718,860 TL in trainings.

Please click here for our Training and Development Management Approach (Implementations and Control) and Global Development Programs.

Detailed training data is located **here.** 

	Average Training Hours By Gender
Men	67
Women	42

# Trainings Provided by Category







# **KEEP (KORDSA E-Learning & Empowerment Platform)**

Since 2010, KEEP serves as an easily accessible and individualized training program tailored to our company, and to cascade the technical expertise of the world leader in the industry to all our employees in a more efficient method.

All employees with a corporate e-mail address can access the e-learning sessions delivered over the KEEP system in local languages on various categories anytime they want, in or outside company premises, on all our locations.

Our employees can join personal development, technical development, corporate integrity, and other development trainings over the KEEP system, as well as managing their training plans, apply for classroom trainings, and suggest new trainings. As the classroom training-planning module has been designed to run over the KEEP system, employees can manage all training and development activities over the system in a 'self-service' mode.

We regularly share all updates and notices with our employees since the launch of the system through e-mails, videos, and posters hung up in our sites, screensavers, intranet announcements, and various rewarding activities.

In 2021, the amount of training our employees received on KEEP reached 4,807 hours.

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# **EQUAL OPPORTUNITIES AND DIVERSITY**

## INTERNAL STAKEHOLDER VIEW

**%74** of our employees who responded to the sustainability assessment survey think that...

Kordsa's recruitment, placement and waging practices to support equal opportunities for women & men, and employee diversity are sufficient.

## **EOUAL OPPORTUNITY AND DIVERSITY**

Besides the fair working environment for hiring and career planning for women, we also offer private health insurance that covers childbirth, and lactation rooms for their convenience. We provide health services, health insurances and retirement plan for all our full-time employees. We added increasing the female employment among our sustainability goals in 2019.

In 2021, ratio of women employees was 14.2% and ratio of in management positions was 27.5%.

In 2020-2021 period 5 female and 70 male employees used their maternity leaves and 100% of them returned their job to work at least another 12 months in our company.

In 2021, the rate of disabled employees at Kordsa Global was 1.26%.

In 2021, we had the first graduates of the **Engineering Reinforce by Women** Project.

## Actions Planned in Diversity, Equality, Inclusion

- From 2022 on we will work with SU GENDER as our training partners in order to raise awareness among all our employees in Diversity Equality Inclusion. We will start with a training series on unconscious bias in the first quarter.
- We will share our corporate pledges in diversity, equity inclusion with our employees.
- We will review the recruitment processes from advertisement to the interview questionnaire within this scope.
- We will go through the process of certifying for equal pay
- We will prepare supplementary policies such as 'zero tolerance for violence' with Compliance Team's support.
- We will build-up 'Women Friendly Facility' applications.
- We will achieve our female employment targets.

Details of our Management Approach on Equal Opportunities and Diversity (Implementations and Control) is located here.

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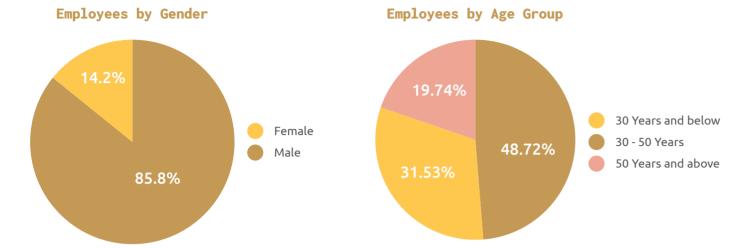
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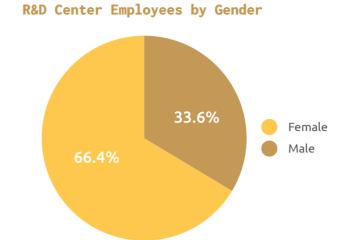
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Number of Employees	2021
EMEA	1,665
Asia Pacific	1,542
South America	394
North America	749
Average Tenure (Years)	2021
All Kordsa	10.81
Turkey	9.35
Indonesia	13.49
Thailand	13.54
Brazil	10.58
USA	8.64
Average Tenure (Years)	
Female	9.67
Male	11.00
Average Tenure (Years)	
W. Collar	11.00
B. Collar	11.70



	Programs to Support Women Employees
Location	Brazil
Name	Being Plural Program
Frequency	During the whole year (Twice a month)
Target Group	All employees
Participation	Over 600 (including contractors)
Purpose	To enhance people's awareness about Inclusion and diversity
Location	Turkey
Name	Women's Club
Frequency	A few times a year
Target Group	All female employees
Participation	172 people all year around
Purpose	To support our women employees in social life as well; to contribute to their creativity, concentration, communication skills



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# **EQUAL OPPORTUNITIES AND DIVERSITY**

## World Disabled Day Awareness

In order to raise awareness on 3rd of December International Day of People with Disabilities, we held #MorIşıkYak and Barrier-Free Workshops on Kordsa's online platform, Meydan.

Turn on Violet Light (#MorlşıkYak) is a change movement designed to eliminate disabled discrimination in education, social and work life and increase the inclusion of the disabled participation in all walks of life. We took the first step on the road to change from inside to outside with the dream of an all-inclusive future with this event.



## **Engineering Reinforce by Woman Mentorship Program**

As an industrial company, Kordsa champions women's employment and representation across all levels. Many female students today maybe turning away to other professions as their choice because of this glass ceiling that creates the false perception that the engineering profession and engineering-based companies are rather male-dominant. With our female reinforcers at Kordsa, we hit the road to inspire and encourage the female



students. Launched on March 8th World Women's Day, our Engineering Reinforce by Woman Mentorship Program kickstarted with the goal of empowering female engineers of the future.

## Scope of The Program

We received 1,180 applications from all female students who study engineering in Turkey, and especially from among those who study in the Anatolian universities with limited resources.

## **Program Contents**

Seven women reinforcers from Kordsa shared their inspiring stories with an audience of 272 female engineering students at a forum on March 25th. Seven students from among 35 participants who agreed to share their stories with us as a prerequisite to the participation in the mentorship program were inducted in as the mentees of our seven female mentors. Throughout the program, our mentors worked on empowering the female engineer candidates in their career and personal developments with telling them about the hardships they had to face and how they overcame them in order to be successful in becoming good female engineers. The six-month long program from May to October that we enriched with one-on-one consultations with the mentors and HR sessions (with insights to getting to know Kordsa, preparing resumés, and effective interview methods) finally ended with the graduation ceremony in November. We will continue the program in 2022.





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# **COMMUNITY DEVELOPMENT**



## INTERNAL STAKEHOLDER VIEW

%67 of our employees who responded to the sustainability assessment survey think that...

Kordsa has sufficient social development investments for the local community.

Our "We are inspired to Reinforce Life" vision drives our social responsibility projects in all geographies we operate. We initiated the "Reinforcing Future **Project" which sets** the framework for our education support projects based on United Nations **Sustainable Development** Goals quality and equality in education article in 2016 at izmit where our main plant is and began deploying it in Turkey and other countries. In 2021, we started social return on

investment (SROI) analysis

of our project with the

higher impact.

aim of developing it with

# Reinforcing the Future Project

**School of Reinforcers** 2016-2021 Highlights



1,040 Students We Touched

**1.000** Kordsa Volunteers

TI 840K Investments

Cooperation with Kocaeli City and İzmit National Education Administrations, and Local Administrations

2021 Highlights of ÖRAV Cooperation



1 Year

**226** Teachers

3 Trainings

TL20K Investment

ÖRAV: Teachers Academy Foundation

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# **COMMUNITY DEVELOPMENT**

# Reinforcing the Future Project

## **Project Scope**

Through our regular visits we make every year, we identify the schools which require the most support in terms of infrastructure and educational equipment, and we provide them with heating system, sports arena, educational equipment, science lab, library, dining hall, and nursery classroom and so forth. We make renovations each year in January in which our volunteer staff are actively involved in all stages of projects from idea, project setup, equipment purchasing and setup, logistics to physical activities on the renovation day such as painting.

### Volunteer Involvement

Each year, we implement "School Renovation Project" just after Kordsa's" Global Leaders' Summit" to ensure that all volunteers from premises around the world can participate in the project. With this project while supporting our staff around the world to collaborate, we also provide opportunities for the students and teachers to meet various cultures. Around 250 Kordsa employees voluntarily participate in the project every year. Besides providing education and learning in better physical conditions for students at renovated schools, we also ensure our volunteers to deepen their loyalty and engagement in our company. Thus, employee satisfaction enhances due to their volunteer contributions in society.





# Teacher Trainings in Collaboration with ÖRAV



### Learning Leader Teacher Training

In 2020, we collaborated with the Teacher's Academy Foundation (ÖRAV) for the development of the teachers at a primary school we had renovated. We helped this program reach 25 teachers in total, 17 of which were from the renovated school, and eight from the schools nearby.

ÖRAV is a foundation which develops training programs to support teachers' personal and professional developments and takes its programs to teachers free of charge with its team of 250 educators. The "Learning Leader Teacher" program aims to develop teachers into teachers who teach not the information, but teach how to learn, through a set of group studies and application workshops where teachers are shown methods and techniques they can take back to their classrooms. This training program supports the development of teachers and school administrators who shoulder the responsibility in training individuals who possess the mental, social, emotional and digital skills 21st century demands.

# Thinking Skills Training

In this year's "Runatolia" which Kordsa's Social Responsibility Club organizes since 2015, our employees ran to raise donations for ÖRAV. With the collected revenue we made 14 teachers receive "Thinking Skills" training in

## Interactive Course in Online Education Design Training

We collaborated with ÖRAV once again in supporting our teachers in the education system that digitalized with the introduction of Covid-19 pandemics in our lives.

For our teachers to adapt to new circumstances and continue to reinforce our children's future, we contributed to the "Interactive Course in Online Education Design" training of 226 teachers from Izmit where our main plant is located. As of 2021, we provided 226 teachers with this training.



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# **ECONOMIC PERFORMANCE INDICATORS**

Economic Value Created & Distributed ('000 TL)	2019	2020	2021
Economic Value Generated (Net Revenues)	5,304,724	4,685,766	8,610,629
Economic Value Distributed to Stakeholders	2019	2020	2021
Operating Expenses	4,184,107	3,999,121	6,627,921
Benefit to Employees	636,172	687,877	1,045,850
Benefit to Government	85,701	22,427	80,398
Benefit to Providers of Capital	48,632	0	160,000
Benefit to Community	20,103	0	742
Economic Value Retained (Profit)	329,856	150,394	695,718
Financial Assistance Received From Government	2019	2020	2021
Turquality	595	345	159
Tax Reliefs	19,164	0	36,306
Incentives	40,915	0	21,179



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KORDSA EMPLOYEE DIVERSITY					
EMPLOYEES					
By Gender	2019	2020	2021		
Female	564	544	621 🕖		
Male	3,486	3,492	3730 🕔		
TOTAL	4,050	4,036	4,351 🕔		

By Type of Employment and Gender	2019	2020	2021
White-collar - Female	287	293	316
White-collar - Male	558	549	596
Blue-collar - Female	277	251	305
Blue-collar - Male	2,928	2,943	3,134
TOTAL	4,050	4,036	4,351

By Location and Gender	2019	2020	2021
Turkey - Female	143	144	156
Turkey - Male	1,329	1,395	1,509
Indonesia - Female	74	71	84
Indonesia - Male	1,075	1,050	1,067
Thailand - Female	107	104	109
Thailand - Male	266	251	281
Brazil - Female	36	51	61
Brazil - Male	321	347	333
USA - Female	204	174	211
USA - Male	494	448	539
China - Female	0	0	0
China - Male	1	1	1
TOTAL	4,050	4,036	4,351

By Age Group and Gender	2019	2020	2021
30 Years and below - Female	110	97	151
30 Years and below - Male	1,148	1,097	1,221
30 - 50 Years - Female	266	285	299
30 - 50 Years - Male	1,790	1,755	1,821
50 Years and above - Female	117	162	171
50 Years and above - Male	619	640	688
TOTAL	4,050	4,036	4,351

## **EMPLOYEES**

By Management Category and Gender	2019	2020	2021
Executives (ELT) - Female	2	2	2 🗸
Executives (ELT) - Male	8	8	8
Director - Female	2	1	2
Director - Male	12	8	12 🕔
Manager - Female	39	44	56 🕢
Manager - Male	108	116	122 🕔
Engineer & Specialist - Female	156	154	168 🕔
Engineer & Specialist - Male	209	206	233 🕢
Supervisor & Technician - Female	10	13	12 🕔
Supervisor & Technician - Male	183	157	166 🕔
Officer (White-collar) - Female	94	95	92 🕢
Officer (White-collar) - Male	102	100	110 🕔
Operator - Female	222	235	289 🕔
Operator - Male	2,903	2,897	3,079 🗸
TOTAL	4,050	4,036	4,351

By Other Groups	2019	2020	2021
Expat - Female	1	1	2
Expat - Male	16	16	20
Disabled - Female	0	0	0
Disabled - Male	59	38	55

Governance Bodies	Ratio		
Board of Directors and ELT	2019	2020	2021
Women	18.75%	17.65%	12.50%
30 Years and below	0.00%	0.00%	0.00%
30 - 50 Years	43.75%	47.06%	31.30%
50 Years and above	56.25%	52.94%	68.70%
Expats	18.75%	18.75%	18.75%
Employees with disabilities	0.00%	0.00%	0.00%

In 2020-2021 period 5 female and 70 male employees used their maternity leaves and 100% of them returned their job to work at least another 12 months in our company.



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KORDSA EMPLOYEE TURNOVER			
New Hires and Dismissals	2019	2020	2021
New hires - Female	92	54	138 🕢
Dismissals - Female	74	56	135
New hires - Male	324	260	561 🕢
Dismissals - Male	443	319	418
Total - New hires	416	314	699 🕖
Total - Dismissals	517	375	553

Turnover Rate	2019	2020	2021
Employee Turnover*	11.5	9.3	12.7 🕔

<sup>\*</sup> Number of employees that quit work/ total number of employees\*100

EMPLOYEE TENURES			
Average Length of Service (Years)	2019	2020	2021
All Kordsa	11.7	11.6	11.03
Turkey	9.5	9.7	9.5
Indonesia	14.1	14.3	13.64
Thailand	14.2	14.9	13.96
Brazil	11.1	10.7	10.73
USA	11.1	10.2	9.01
Average Length of Service (Years)	2019	2020	2021
W. Collar	11.3	10.9	10.57
B. Collar	11.9	11.8	11.15
Average Length of Service (Years)	2019	2020	2021
Female	11.5	11.0	9.97
Male	11.8	11.7	11.2

KORDSA TRAINING INVESTMENTS			
	2019	2020	2021
Total Number of Trained Employees	3,349	3,284	4,021
Total Training Expenses (TL)*	3,148,671	3,551,653	6,718,860
Average Training (By Employee Category)	2019	2020	2021
Executives (ELT)	24.50	18.15	12.44
Director	35.71	70.00	8.88
Manager	67.98	54.67	46.26
Engineer & Specialist & Officer (White-collar)	63.74	50.20	58.87
Supervisor	61.65	47.11	23.37
Operator & Technician	72.77	53.65	68.09
Average Training Hour (By Gender)	2019	2020	2021
Male	72.43	59.84	66.24
Female	51.86	35.28	41.51
Average Training Hour (By Training Type)	2019	2020	2021
Career Development	40.04	35.45	18.53
Personal Development	7.43	11.11	8.55
Safety, Health and Environment	15.19	9.41	5.58
Average Training Hours (All Trainings)	2019	2020	2021
Total Training Hours Per Person	62.67	55.97	63.43
TOTAL TRAINING HOURS			
	2019	2020	2021
Career Development	150,516	133,050	146,398 🗸
Personal Development	26,667	36,300	37,298 🗸
Safety, Health and Environment	57,116	36,969	47,084 🗸
Other	1,261	7,634	28,757 🗸
Total Training Hours	235,559	213,953	259,537√
Contractor Trainings	2019	2020	2021
Total Number of Trained Contractors	228	216	158
Total Training Hours	1,782	1,436	1,073

\* Contractor trainings are included.



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## KORDSA ETHICS

	2019	2020	2021
Total Number of notifications/complaints on ethics hotline	3	2	7*
Number of notifications/complaints resolved within the year	3	2	6
Number of discrimination incidents	0	0	0
Number of harassment (Mobbing) incidents	0	0	0
Number of child and/or forced labor incidents	0	0	0
Number of information security incidents	0	0	0
Total training hours on ethics provided to employees (including human rights)	491	1,488	3,685
Total number of employees trained on ethics within the year	966	1,374	1,559
Average number of ethics training hours per employee	0.51	1.08	2.36
Coverage of ethics trainings within the company	White-collar employees: 100% online  Blue-collar employees: 100% within on the job trainings  Indone		Turkey: 100% Brazil: 71.6% Indonesia: 92% Thailand: 23.5%
Coverage of Ethics Training Topics	Bribery /Corruption / Fraud / Human Rights Discrimination / Mobbing / Harassment		

## KORDSA COMPLIANCE

	2019	2020	2021
Non-compliance fines for customs, taxes, and social security regulations (TR)	-	676,220 TL	158,116 TL

No public cases on compliance occurred and/or finalized on environmental, social or governance topics, against Kordsa.

## KORDSA ANTI-BRIBERY AND ANTI-CORRUPTION

	2019	2020	2021
Number of bribery and corruption cases occurred	1	1	3*
Number of disciplinary penalties to employees because of these cases	4	3	3
Number of criminal cases to Kordsa because of these cases	0	0	0

No contract with business partners that was terminated or failed to be renewed due to violations related to corruption; no public lawsuit opened against our company or our employees because of corruption.

\* In 2021, seven of the three notifications were found to be ethical breaches of bribery and corruption. After internal audit, labor contracts of five employees were terminated. One employee resigned by his/her own will. Business contracts of related suppliers were also terminated.

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KORDSA	<b>OCCUPATIONAL</b>	HEALTH	AND	<b>SAFETY</b>	MANAGEMENT	(1	1)
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Plants				Turkey			Thailand			
Accidents	Group	Unit	2019	2020	2021	2019	2020	2021		
The number and rate of fatalities as a result of work-related injury	Kordsa Employee	Number Rate	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00		
	Contractor	Number Rate	0.00	0.00	0.00 0.00	0.00	0.00	0.00 0.00		
The number and rate of high-consequence	Kordsa Employee	Number Rate	0.00	0.00	0.00 0.00	0.00	0.00	0.00		
work-related injuries (excluding fatalities)	Contractor	Number Rate	0.00	0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00		
The number and rate of recordable work-	Kordsa Employee	Number Rate	3 LWC - 2 MTC 0.31	0.00	2 LWC <b>(</b> ) 0.13	0.00	0.00	0.00		
related injuries	Contractor	Number Rate	3 LWC 0.55	0.00	3 LWC 0.72	0.00	0.00	0.00		
The number of hours worked	Kordsa Employee	Number Rate	3,242,891 0.66	2,602,925 0.68	3,097,244 <b>①</b> 0.75	783,834 0.81	760,080 0.87	805,734 0.83		
THE Hamber of Hours Worked	Contractor	Number Rate	1,096,769 0.34	822,619 0.32	837,559 0.25	146,648 0.19	127,096 0.17	166,893 0.17		

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Plants				Indonesia			Brazil	
Accidents	Group	Unit	2019	2020	2021	2019	2019	2021
	Kordsa Employee	Number	0.00	0.00	0.00	0.00	0.00	0.00
The number and rate of fatalities as a result of work-related injury	Kordsa Employee	Rate	0.00	0.00	0.00	0.00	0.00	0.00
	Contractor	Number	0.00	0.00	0.00	0.00	0.00	0.00
	Contractor	Rate	0.00	0.00	0.00	0.00	0.00	0.00
The number and rate of high-consequence	Kordsa Employee	Number	0.00	0.00	0.00	0.00	0.00	0.00
		Rate	0.00	0.00	0.00	0.00	0.00	0.00
work-related injuries (excluding fatalities)	Contractor	Number	0.00	0.00	0.00	0.00	0.00	0.00
		Rate	0.00	0.00	0.00	0.00	0.00	0.00
	Kandan Fanalayaa	Number	1 LWC	2 LWC	0.00	1 LWC	2 LWC	1 LWC
The number and rate of recordable work-	Kordsa Employee	Rate	0.08	0.24	0.00	0.28	0.70	0.25
related injuries	Contractor	Number	0.00	1 LWC	0.00	0.00	0.00	0.00
	Contractor	Rate	0.00	1.13	0.00	0.00	0.00	0.00
	Kordea Employee	Number	2,392,802	1,692,608	2,473,009 🕔	713,432	573,426	808,032
The number of hours worked	Kordsa Employee	Rate	0.67	0.89	0.86	0.66	0.55	0.79
The number of mours worked	Contractor	Number	783,733	177,399	355,229	240,555	260,383	208,865
	Contractor	Rate	0.33	0.11	0.14	0.34	0.45	0.21

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ı	KORDSA	<b>OCCUPATIONAL</b>	HEALTH	<b>AND</b>	SAFETY	MANAGEMENT	(3	)
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Plants			ι	JSA - Chattanoog	a	USA – Laurel Hill				
Accidents	Group Unit 2019 2020		2021	2019	2020	2021				
The number and rate of fatalities as a result of work-related injury	Kordsa Employee	Number Rate	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00		
	Contractor	Number Rate	0.00	0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00		
The number and rate of high-consequence	Kordsa Employee	Number Rate	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00		
work-related injuries (excluding fatalities)	Contractor	Number Rate	0.00 0.00	0.00 0.00	0.00	0.00	0.00 0.00	0.00		
The number and rate of recordable work-	Kordsa Employee	Number Rate	0.00 0.00	2 RWC – 1 LWC 1.31	0.00	0.00	0.00	1 RWC 0.99		
related injuries	Contractor	Number Rate	0.00 0.00	0.00	0.00	0.00	0.00	1 LWC 6.58		
The number of hours worked	Kordsa Employee	Number Rate	485,940 0.81	457,956 0.81	483,493 <b>√</b> 0.82	202,421 0.83	185,545 0.80	201,642 0.87		
THE HAMBET OF HOURS WORKED	Contractor	Number Rate	90,572 0.19	85,315 0.19	88,219 0.18	34,957 0.17	37,094 0.20	30,392 0.13		

<b>KORDSA</b>	<b>OCCUPATIONAL</b>	HEALTH	AND	SAFETY	MANAGEMENT	(4)

Plants			Composite Techn	ologies Center of E	excellence (CTCE)	USA - Anaheim (TPI)*				
Accidents	Group	Unit	2019	2020	2021	2019	2020	2021		
The number and rate of	Kordsa Employee	Number Rate	0.00 0.00	0.00	0.00	0.00 0.00	0.00 0.00	0.00		
fatalities as a result of work- related injury	Contractor	Number Rate	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00		
The number and rate of high- consequence work-related	Kordsa Employee	Number Rate	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00		
injuries (excluding fatalities)	Contractor	Number Rate	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00		
The number and rate of	Kordsa Employee	Number Rate	0.00 0.00	0.00	0.00	0.00	2 LWC 2.72	1 MTC 1.32		
recordable work-related injuries	Contractor	Number Rate	0.00	0.00	1 LWC 3.34	0.00	1 MTC 17.56	0.00 0.00		
The number of bours worked	Kordsa Employee	Number Rate	173,765 0.48	172,847 0.59	131,321 0.67	245,905 1.00	147,183 0.92	151,259 0.97		
The number of hours worked	Contractor	Number Rate	190,664 0.22	71,480 0.41	59,929 0.33	0.00 0.00	11,388 0.08	3,844 0.03		

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## KORDSA OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT (5)

Plants			USA -	USA - Quakertown (FDI)*			San Marcos (	USA - Santa Ana (Axiom)**		
Accidents	Group	Unit	2019	2020	2021	2019	2020	2021	2020	2021
The number and rate of fatalities as a result of work-related injury	Kordsa Employee	Number Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Contractor	Number Rate	0.00	0.00	0.00 0.00	0.00 0.00	0.00	0.00	0.00 0.00	0.00 0.00
The number and rate of high- consequence work-related	Kordsa Employee	Number Rate	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00
injuries (excluding fatalities)	Contractor	Number Rate	0.00	0.00	0.00 0.00	0.00 0.00	0.00	0.00 0.00	0.00 0.00	0.00 0.00
The number and rate of recordable work-related	Kordsa Employee	Number Rate	1 MTC - 1 RWC 1.44	1 LWC 1.00	0.00 0.00	0.00	0.00	0.00	1 MTC 1.00	1 MTC 0.92
injuries	Contractor	Number Rate	0.00	0.00	0.00 0.00	0.00	0.00	0.00	0.00	1 LWC 6.54
The number of hours worked	Kordsa Employee	Number Rate	277,763 0.97	227,739 0.97	205,534 0.94	44,100 1.00	42,263 1.00	43,304 0.95	207,673 0.97	217,193 0.88
	Contractor	Number Rate	8,133 0.03	6,314 0.03	12,159 0.6	0.00	0.00	1,985 0.05	6,202 0.03	30,581 0.12

## KORDSA OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT (6)

OHS TRAINING HOURS (Employees)	2019	2020	2021	OHS TRAINING HOURS (Contractors)	2020	2021
Turkey- Izmit	13	5	12	Turkey- Izmit	5	8
Turkey- Istanbul (CTCE)	6	4	6.6	Turkey- Istanbul (CTCE)	4	8
Brazil	27	21	26	Brazil	6	3
Indonesia	8	3	4.5	Indonesia	3	3
Thailand	9	4	4	Thailand	1	8
USA - Chattanooga	17	8	17	USA - Chattanooga	3	3
USA - Laurel Hill	6	3	2	USA - Laurel Hill	1	1
USA - Quakertown (FDI)*	11	8	5	USA - Quakertown (FDI)*	7	5
USA - Anaheim (TPI)*	2	8	6	USA - Anaheim (TPI)*	0	6
USA - San Marcos (AHT)*	2	2	2	USA - San Marcos (AHT)*	N/A	1
USA - Santa Ana (Axiom)**	N/A	8	10.4	USA - Santa Ana (Axiom)**	6	5

### **Explanations for OHS Data:**

\* Composite companies joined Kordsa in 2018

Lost Workday Case (LWC): When the worker cannot return to work the first workday following an occupational accident resulting in injury.

Medical Treatment Case (MTC): When an accident occurs that require medical treatment and the injured person can return to work the first workday following injury.

Restricted Workday Case (RWC): When the injured can return to work the first workday after injury, but is asked to work on another task, as he cannot perform his/her regular task.

Rate of fatalities as a result of work-related injury: (Number of fatalities as a result of work-related injury/Number of hours worked) x 200,000

Rate of high-consequence work-related injuries (excluding fatalities):

(Number of high-consequence work-related injuries (excluding fatalities) / Number of hours worked) x 200,000

Rate of recordable work-related injuries: (Number of recordable work-related injuries/Number of hours worked) ) x 200,000

N/A: not available



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<sup>\*\*</sup> Composite company joined Kordsa in 2019

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Employees with Collective Bargaining Agreement	2019	2020	2021
Turkey	737	754	802
Indonesia	891	944	967
Brazil	376	320	325
USA	0	0	0
China	0	0	0
Thailand	0	0	0
Total	2,004	2,018	2,094
Ratio of employees with collective bargaining agreement to total blue-collar employees (%)	55%	55%	61%

Topic Covered by Collective Labor Agreement	Turkey	Indonesia	Brazil
Occupational Health and Safety	√	$\sqrt{}$	$\sqrt{}$
Working Conditions (work-rest hours, leaves)	$\checkmark$	$\checkmark$	$\checkmark$
Training	$\checkmark$	$\checkmark$	-
Career Management	-	$\checkmark$	-
Employee Representatives' Tasks and Responsibilities	$\checkmark$	$\checkmark$	-
Additional Work Payments	$\checkmark$	$\checkmark$	$\sqrt{}$

## SUSTAINABLE PROCUREMENT

In 2019, we invited more than 400 global and local suppliers from five countries in which we operate to participate in the Supplier Sustainability Assessment Survey. With this survey, in 2020, 73% of our global suppliers participated the survey. The share of the suppliers we could reach in our global raw materials procurement is 79.5%, which excludes the suppliers we get packing, transportation, and similar services from.

(Our global procurement team carries out the purchasing of 90% of the raw materials that all our plants require.)

In 2021, we reviewed our sustainable procurement KPI's and determined new indicators. As of 2021, our performance table follows.

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Suppliers		
Ratio of targeted suppliers who have gone through a sustainability assessment survey	54%	
Ratio of targeted raw material suppliers audited in line with annual scheduled audit plan	87.5%	
Number of suppliers evaluated in the scope of Human Rights*	74 🕢	

<sup>\*</sup>This KPI verified by PWC in 2021.

# **ENVIRONMENTAL PERFORMANCE INDICATORS**

## KORDSA ENERGY CONSUMPTION

Electricity (kWh)	2019	2020	2021
Turkey- Izmit	191,481,392	160,629,631	195,104,931 🗸
Turkey- Istanbul (CTCE)	2,682,228	2,323,572	2,485,810
Indonesia	175,133,832	151,965,785	199,420,998 🕢
Thailand	41,919,497	36,338,516	45,288,022
Brazil	79,163,328	62,143,543	74,711,663
USA - Chattanooga	60,262,715	53,510,420	61,253,960 🕔
USA - Laurel Hill	20,776,885	18,887,897	25,227,093
USA - Quakertown (FDI)	1,360,320	1,201,550	1,298,040
USA - Anaheim (TPI)	903,000	858,180	913,040
USA - San Marcos (AHT)	258,609	274,405	281,101
USA - Santa Ana (Axiom)	2,070,588	2,043,468	2,269,190
TOTAL	576,012,394	490,176,967	608,253,848

## KORDSA ENERGY CONSUMPTION

Natural Gas (Sm³)	2019	2020	2021
Turkey- Izmit	22,676,543	21,096,261	25,030,373 🗸
Turkey- Istanbul (CTCE)	145,913	147,995	156,807
Indonesia	8,284,715	6,559,498	8,343,215
Thailand	3,802,126	3,147,424	3,918,444
Brazil	2,884,710	2.409,499	3,039,828
USA - Chattanooga (Scf)	22,178,329	18,462,584	21,140,903 🗸
USA - Laurel Hill (Scf)	1,832,822	1,990,048	2,380,454
USA - Quakertown (FDI)	25,312	57,526	25,312
USA - Anaheim (TPI)	399	586	872
USA - San Marcos (AHT)	73,718	73,414	73,592
USA - Santa Ana (Axiom)	444,298	328,037	400,488
TOTAL	62,348,885	54,272,871	64,510,289

We purchased International Renewable Energy Certificate (I-REC) from Enerjisa for our Turkey izmit plant and so used **75.912 MWh** of our electricity consumption from renewable resources.

## KORDSA ENERGY CONSUMPTION

Other Fuels	Diesel O	oil (liter)	Gasolin	e (liter)	LPG	(kg)
	2020	2021	2020	2021	2020	2021
Turkey - İzmit	68,733	55,646	0	36,182	0	0
Turkey - İstanbul (CTCE)	1,385	1,443	0	0	0	0
Indonesia	33,769	133,505	20,583	17,639	0	0
Thailand	16,033	11,494	10,984	7,568	9,960	10,965
Brazil	70,810	367,005	12,093	10,233	21,700	22,150
USA - Chattanooga	47,870	13,085	16,922	6,721	2,177	0 🕔
USA - Laurel Hill	0	1,759	8,058	0	0	0
USA - Quakertown (FDI)	0	0	9,464	9,448	0	0
USA - Anaheim (TPI)	3,104	1,964	1,783	4,174	0	0
USA - San Marcos (AHT)	13,041	3,906	13,628	1,577	27	30
USA - Santa Ana (Axiom)	0	3,030	16,356	1,317	1,334	0
TOTAL	254,745	592,837	109,869	94,859	35,199	33,145

**Explanations for Data: CTCE:** Composite Technologies Center of Excellence • n.a.: data not available

2019 Total Diesel Oil Consumption (liter): 314,956.57 2019 • Total Gasoline Consumption (liter): 125,388.75 2019 • Total LPG Consumption (kg): 40,407.38



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# **ENVIRONMENTAL PERFORMANCE INDICATORS**

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KORDSA	<b>EMISSIONS</b>	(Scope	1)	
Kordsa Plants (tCO_e)				

Kordsa Plants (tCO <sub>2</sub> e)	2019	2020	2021
Turkey-Izmit*	47,500.87	43,035.49	51,518.89
Turkey- Istanbul (CTCE)	495.87	359.64	583.23
Indonesia*	17,538.43	15,040.53	17,267.64
Thailand	7,929.30	7,182.53	8,196.58
Brazil	6,231.94	6,926.72	8,898.35
USA - Chattanooga*	44,369.71	36,026.13	41,909.64
USA - Laurel Hill	3,552.70	3,851.64	4,588.34
USA - Quakertown (FDI)	59.12	134.97	234.61
USA - Anaheim (TPI)	23.72	13.60	16.76
USA - San Marcos (AHT)	221.26	207.99	155.99
USA - Santa Ana (Axiom)	953.07	764.88	789.99
TOTAL	128,875.99	113,544.12	134,159.86

# KORDSA EMISSIONS (Scope 2)

Kordsa Plants (tCO <sub>2</sub> e)	2019	2020	2021
Turkey- Izmit*	88,272.92	68,400.70	51,407.91
Turkey- Istanbul (CTCE)	1,236.51	1,071.17	1,072.13
Indonesia*	134,677.92	116,861.69	151,898.97
Thailand	19,827.92	17,188.12	20,859.66
Brazil	9,262.11	7,270.79	7,777.48
USA - Chattanooga*	29,957.99	25,197.49	26,554.83
USA - Laurel Hill	10,328.67	6,405.72	7,772.35
USA - Quakertown (FDI)	469.41	392.34	411.21
USA - Anaheim (TPI)	216.07	194.08	188.53
USA - San Marcos (AHT)	61.88	62.06	58.04
USA - Santa Ana (Axiom)	495.46	462.13	468.55
TOTAL	294,806.85	243,506.29	268,469.67

We purchased International Renewable Energy Certificate (I-REC) from Enerjisa for our Turkey İzmit plant and so used 75.912 MWh of our electricity consumption from renewable resources. We have provided 12% of our electrical energy with renewable energy certificate. 2020 and 2021 Scope 1 and 2 emissions of our Turkey Izmit, Indonesia and USA Chattanooga facilities have been verified by PWC.

KORDSA EMISSIONS (Scope 3)			
Kordsa Plants (tCO <sub>2</sub> e)	2019	2020	2021
Turkey- Izmit*	n.a.	427,965.90	506,646.07
Turkey- Istanbul (CTCE)	n.a.	941.79	1,248.29
Indonesia*	n.a.	170,748.38	295,759.79
Thailand	n.a.	11,873.07	13,087.92
Brazil	n.a.	16,998.80	82,968.84
USA - Chattanooga*	n.a.	517,515.25	746,482.37
USA - Laurel Hill	n.a.	5,070.56	8,453.70
USA - Quakertown (FDI)	n.a.	837.94	7,269.54
USA - Anaheim (TPI)	n.a.	778.14	6,878.29
USA - San Marcos (AHT)	n.a.	311.05	234.54
USA - Santa Ana (Axiom)	n.a.	622.07	3,287.53

n.a.

KORDSA EMISSIONS (Total)		Scope 1&2		Scope 1&2&3		
Kordsa Plants (tCO <sub>2</sub> e)	2019	2020 2021		2020	2021	
Turkey- Izmit*	135,773.79	111,436.20	102,926.80	539,402.10	609,572.87	
Turkey- Istanbul (CTCE)	1,732.37	1,430.81	1,655.36	2,372.59	2,903.65	
Indonesia*	152,216.35	131,902.21	169,166.61	302,650.62	464,926.40	
Thailand	27,757.23	24,370.65	29,056.24	36,243.72	42,144.16	
Brazil	15,494.05	14,197.52	16,675.83	31,196.31	99,644.67	
USA - Chattanooga*	74,327.69	61,223.62	68,464.31	578,738.92	814,946.68	
USA - Laurel Hill	13,881.37	10,257.36	12,360.69	15,327.92	20,814.39	
USA - Quakertown (FDI)	528.52	527.31	645.82	1,365.25	7,915.36	
USA - Anaheim (TPI)	239.80	207.68	205.28	985.82	7,083.57	
USA - San Marcos (AHT)	283.14	270.05	214.04	581.10	448.58	
USA - Santa Ana (Axiom)	1,448.53	1,227.01	1,258.54	1,849.08	4,546.07	
TOTAL	423,682.84	357,050.41	402,629.53	1,510,713.43	2,441,467.25	

**Explanations for Data:** 

**TOTAL** 

Scope 1 Data Includes: Natural gas, generators & pumps, cooling gases, fire extinguishers, company vehicles

Scope 2 Data Includes: Electricity

Scope 3 Data Includes:

C1- Purchased Goods and Services C3- Fuel and Energy Related Activities (not reported under Scope 1 and 2) C4- Upstream Transportation and Distribution C5- Waste Generated in Operations C6- Business Travel C7- Employee Commuting C9- Downstream Transportation and Distribution C10- Processing of Sold Products C12- End-of-Life Treatment of Sold Products C13- Downstream Leased Assets

\*Turkey İzmit, Indonesia and USA Chattanooga sites' 2020 and 2021 Scope 3 emission have been verified by QSI.

CTCE: Composite Technologies Center of Excellence

n.a. : data not available



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2,038,837.72

1,153,662.95

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**Plants** 

Turkey- Izmit USA -Laurel Hill

USA - Chattanooga

USA - Chattanooga

USA - Chattanooga

Turkey- Izmit

Turkey-Izmit

Indonesia

Indonesia

Indonesia

Thailand Brazil Indonesia

Brazil

REUSED MATERIALS (Reuse Ratio)

Materials

Steel Shells

Tubes

Carton Separators

Wooden Pallets

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KORDSA MATERIALS MANAGEMENT								
Materials	Plants	2019	2020	2021				
	Dipping NY - Turkey	0.98	0.92	0.94				
	Dipping PE - Turkey	1.02	0.82	0.97				
	Dipping - USA / Laurel Hill	1.04	0.93	1.05				
TCF Chemical Ratio	Dipping - Brazil	1.01	0.81	0.98				
	Dipping TCF1 - Indonesia	0.99	0.97	0.90				
	Dipping TCF2 - Indonesia	0.94	0.93	0.87				
	Dipping - Thailand	1.04	0.97	0.97				
Materials	Plants	2019	2020	2021				
	NY Yarn Line 1 - Turkey	0.99	0.90	0.97				
	NY Yarn Line 2 - Turkey	1.00	1.04	0.99				
	PE Yarn - Turkey	1.02	0.98	1.00				
NY Salt / Flake Ratio	NY Yarn - USA / Chattanooga	0.98	0.58	1.02				
	Yarn - Brazil	1.79	0.98	1.82				
	NY Yarn - Indonesia	1.01	1.00	0.92				
	PE Yarn - Indonesia	1.00	0.96	1.00				
Materials	Plants	2019	2020	2021				
SEC Chemical Ratio	SEC - Turkey	1.42	0.66	1.23				
SEC CHEITHCAL RACIO	SEC - Brazil	0.98	0.92	0.95				

0.98	0.92	0.95
2019	2020	2021
35%	50%	51%
55%	86%	100%
31%	41%	82%
86%	84%	82%
86%	93%	99%
8%	28%	26%
8%	14%	0.1%
62%	84%	73%
N/A	16%	18%
8%	13%	9%
38%	38%	45%
N/A	33%	37%
N/A	19%	16%
72%	73%	44%

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KORDSA WASTE MANAGEMENT DATA											
Waste By Type (tonnes)		Hazardous Waste	Non- Hazardous Waste	Total Waste	Waste By Disposal Metho (tonnes)	d	Recycle	Landfill	Energy Recovery	Incineration	Total Disposed Waste
	2019	1,459	2,505	3,964		2019	2,110	2	1,270	2	3,384
Turkey-Izmit*	2020	1,483	2,174	3,657	Turkey- Izmit*	2020	1,902	585	1.170	0	3,658
	2021	1,734 🕢	4,119 🜒	5.852 🕔		2021	3,737 🜒	593.698 🕢	197 🕢	1324.993√	5,853
Turkey - Istanbul (CTCE)	2019	60	0	60		2019	0	0	0	60	60
	2020	63	9	72	Turkey - Istanbul (CTCE)	2020	9	11	0	62	82
	2021	66.28	2.77	69		2021	2.78	0	0.62	65.65	69
	2019	858	1,684	2,542	Indonesia*	2019	2,084	0	448	10	2,542
Indonesia*	2020	648	1,997	2,645		2020	2,184	0	458	3	2,645
	2021	973.98 🕖	2,924 🕖	3,898 🕢		2021	2,965.5 🕔	0.64 🕢	426.14 🕖	505.52 🕢	3,898
	2019	37	1,705	1,742		2019	1,612	109	21	0	1,742
Thailand	2020	50	1,428	1,478	Thailand	2020	1,355	92	31	0	1,478
	2021	54.3	1,717	1,771		2021	1,652	100	19.06	0	1,771
Brazil	2019	40	1,216	1,256		2019	1,073	85	98	0	1,256
	2020	0	949	949	Brazil	2020	824	69	55	0	949
	2021	78.0	1,445.6	1,523.6		2021	1,306.2	86.8	130.6	0.0	1,523.6

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KORDSA	WASTE	MANAGEMENT	DATA
Wasta By	Type /box	2225	Hazaro

Waste By Type (tonnes)	Hazardous Waste Waste Waste Waste Waste Waste Waste Waste Waste		od	Recycle	Landfill	Energy Recovery	Incineration	Total Disposed Waste			
	2019	1	21	22		2019	21	0	0	1	22
USA - Chattanooga*	2020	2	225	227	USA - Chattanooga*	2020	25	165	0	1	191
	2021	1	107.93 🕢	108.94 🕔	. 🕢	2021	26.41 🕔	81.84 🕔	0.16 🕔	0.46 🕔	108.87 🕔
	2019	198	0	198		2019	198	0	0	0	198
USA - Laurel Hill	2020	1	312	313	USA - Laurel Hill	2020	268	45	0	0	313
	2021	0.09	47.71	47.80		2021	0.18	47.55	0	0.068	47.80
	2019	0	249	249		2019	19.38	249.3	0	0	249.3
USA - Quakertown (FDI)	2020	0	218.23	218.23	USA - Quakertown (FDI)	2020	32.45	218.23	0	0	218.23
	2021	0	93.42	93.42		2021	31.06	62.356	0	0	93.42
	2019	n.a.	n.a.	0	USA - Anaheim (TPI)	2019	n.a.	n.a.	n.a.	n.a.	n.a.
USA - Anaheim (TPI)	2020	5	756	761		2020	5	756	0	0	761
	2021	0.57	527.98	528.6		2021	0.57	527.98	0	0	528.55
	2019	3	14	17	LICA Con Manne (ALIT)	2019	3	11	0	3	16
USA - San Marcos (AHT)	2020	0	13	13	USA - San Marcos (AHT)	2020	3	10	0	0	13
	2021	0.615	12.5	13.12		2021	2.20	9.40	0	0	11.60
UCA Cooks Ass	2019	27	1	28	UCA Cooks Ass	2019	28	0	0	0	28
USA - Santa Ana	2020	50	497	547	USA - Santa Ana (Axiom)	2020	150	277	0	69	497
(Axiom)	2021	38.11	308.53	346.6	(Axioiii)	2021	20.66	312.96	12.84	0	346.64

<b>KORDSA</b>	TOTAL	GI ORAI	WASTE	DATA

RORDSA TOTAL GLOBAL WASTE DATA			
Waste By Type (tonnes)	2019	2020	2021
Hazardous Waste	2,684	2,302	2,947
Non-Hazardous Waste	7,395	8,578	11,306
Total Waste	10,079	10,879	14,253
Waste By Disposal Method (tonnes)	2019	2020	2021
Recycle	7,131	6,725	9,744
Landfill	207	2,010	1,823
Energy Recovery	1,836	1,715	786.8
Incineration	76	136	1,897
Total Disposed Waste	9,249	10,587	14,251

#### **Explanations Regarding Data:**

2018 data includes all sites except the four new composite sites. 2019 data includes all sites except TPI and 2020-2021 data includes all sites.

\*2020 and 2021 data is verified by PWC.

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Water Withdrawals (m³)	Years	Fresh Surface Water	Groundwater-Renewable	Third Party Sources	Total Withdrawals
	2019	0	562,784	48,319	611,103
urkey- Izmit*	2020	0	522,358	34,206	556,564
	2021	0 🕢	543,094 🕢	70,049 🕔	613,143 🕔
	2019	0	0	4,347	4,347
ırkey - Istanbul (CTCE)	2020	0	0	7,799	7,799
	2021	0	0	7,285	7,285
	2019	350,234	0	0	350,234
donesia*	2020	351,733	0	0	351,733
	2021	517,049 🕢	0	0	517,049 🕔
	2019	0	0	102,228	102,228
ailand	2020	0	0	84,162	84,162
	2021	0	0	99,378	99,378
	2019	0	95,566	9,612	105,178
Brazil	2020	0	111,243	6,630	117,873
	2021	0	114,331	7879	122,210
	2019	2,816,538	0	83,558	2,900,096
A - Chattanooga*	2020	1,683,631	0	79,674	1,763,305
	2021	2,218,447 🕔	0	64,647 🕢	2,283,094 🕔
	2019	0	0	4,391	4,391
SA - Laurel Hill	2020	0	0	5,860	5,860
	2021	0	0	3,549	3,549
	2019	0	0	1,222	1,222
SA - Quakertown (FDI)	2020	0	0	1,315	1,315
	2021	0	0	1,148	1,148
	2019	0	0	1,826	1,826
A - Anaheim (TPI)	2020	0	0	4,434	4,434
	2021	0	0	3,845	3,845
	2019	0	0	430	430
A - San Marcos (AHT)	2020	2.34	0	651.09	653,43
	2021	2.34	0	273.79	276,33
	2019	0	0	4,666	4,666
SA - Santa Ana (Axiom)	2020	0	0	6,676	6,676
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Water Discharges (m³)	Yıl	Fresh Surface Water	Third-Party Destinations	Other	Total Discharges
	2019	0	297,255	0	297,255
Turkey - İzmit	2020	0	295,322	0	295,322
	2021	0	283,300	0	283,300
	2019	0	3,913	0	3,913
Turkey - İstanbul (CTCE)	2020	0	7,019	0	7,019
	2021	0	6,556	0	6,556
	2019	45,625	0	0	45,625
ndonesia	2020	45,624	0	0	45,624
	2021	31,672	0	0	31,672
	2019	0	81,782	0	81,782
Γhailand	2020	0	67,330	0	67,330
	2021	0	79,503	0	79,503
	2019	0	34,134	0	34,134
Brazil	2020	0	28,164	0	28,164
	2021	0	28,151	0	28,151
	2019	966,625	1,182,894	0	2,149,518
JSA - Chattanooga	2020	734,010	817,209	0	1,551,219
	2021	772,277	1,102,777	0	1,875,053
	2019	0	2,802	0	2,802
JSA - Laurel Hill	2020	0	2,442	0	2,442
	2021	0	2,442	0	2,442
	2019	0	1,222	0	1,222
JSA - Quakertown (FDI)	2020	0	1,315	0	1,315
	2021	0	1,117	0	1,117
	2019	0	1,643	0	1,643
JSA - Anaheim (TPI)	2020	0	3,990	0	3,990
	2021	0	3,462	0	3,462
	2019	0	387	0	387
JSA - San Marcos (AHT)	2020	0	585	0	585
	2021	0	272	0	272
	2019	0	4,199	0	4,199
USA - Santa Ana (Axiom)	2020	0	6,008	0	6,008
	2021	0	4,283	0	4,283

#### KORDSA WATER MANAGEMENT DATA

RURDSA WATER MANAGEMENT DATA									
Recycled Water (m³)	Year	Amount	Total 2019	Total 2020	Total 2021				
	2019	142,965							
Turkey - İzmit	2020	145,671							
	2021	180,247	101 671	194 101	210 120				
	2019	38,706	181,671	184,101	219,130				
Indonesia	2020	38,430							
	2021	38,880							

#### **Explanations Regarding Data:**

2018 data includes all sites except the four new composite sites.

2019 and 2020 data include all sites.

\*2020 and 2021 data is verified by PWC.

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ADDITIONAL ENVIR	ADDITIONAL ENVIRONMENTAL DATA												
Other Emissions	Years	Unit	Turkey - İzmit	Turkey - istanbul (KTMM)	Indonesia	Thailand	Brazil	USA - Chattanooga	USA - Laurel Hill	USA - Quakertown (FDI)	USA - Anaheim (TPI)	USA - San Marcos (AHT)	USA - Santa Ana (Axiom)
NOx Emissions	2021	Tons	154.01	-	15.39	384	16.0	36.72	4.20	No measurement		0.55	0.84
NOX Emissions	2020	Tons	154.01	-	0.008	0.0001	15	32.06	3.51	No measurement	No measurement	0.55	0.72
Sov Emissions	2021	Tons	1.25	-	4.23	131	1.2	0.264	0.025	No measurement	No measurement	0	0.0039
Sox Emissions	2020	Tons	1.25	-	0.001	0.000043	4.13	0.22	0.02	No measurement	No measurement	0	0.00331
VOC Emissions	2021	Tons	12.24	0.063	No measurement	261	0.17	4.47	3.76	No measurement	No measurement	2.4	1.684
VOC EIIIISSIOIIS	2020	Tons	12.24	0.063	No measurement	0.049	0.97	3.59	3.72	No measurement	No measurement	2.4	1.049
Environmental Fines	2021	USD	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Livironincilederines	2020	LICD	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0

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#### ADDITIONAL ENVIRONMENTAL DATA

2020

USD

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ADDITIONAL ENVIRONMENTAL DATA

E-Wastes	Years	Unit	Turkey - izmit	Turkey - istanbul (KTMM)	Indonesia	Thailand	Brazil	USA - Chattanooga	USA - Laurel Hill	USA - Quakertown (FDI)	USA - Anaheim (TPI)	USA - San Marcos (AHT)	USA - Santa Ana (Axiom)
E-wastes collect	2021	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
separately	2020	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
E-wastes send to	2021	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
recycle	2020	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
E-waste amount*	2021	Tons	9.10	0	0.84	0.11	0	0.69	0	0	0	<1	0.07
E-waste aillouit"	2020	Tons	11.38	0	1.6	0.06	1.34	0.79	0	0	0	<1	0.05

<sup>\*</sup>Managing the end-of-life of our e-wastes one of our environmental priorities since those wastes are strictly harmful to both environment and people's health. According to the act, e-wastes require proper disposal through an accredited treatment and recycling facility. We have been implemented E-waste initiatives for Kordsa's facilities. During the 2020, we recycle 10,81 tons of e-waste.

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ADDITIONAL ENVIRONMENTAL DATA														
Water Pollutants	Years	Unit	Turkey - İzmit	Turkey - istanbul (KTMM)	Indonesia	Thailand	Brazil	USA - Chattanooga	USA - Laurel Hill	USA - Quakertown (FDI)	USA - Anaheim (TPI)	USA - San Marcos (AHT)	USA - Santa Ana (Axiom)	
Wastewater	2021	Yes/No	Yes	No	Yes	Yes	No	No	No	No	No	No	No	
treatment system	2020	Yes/No	Yes	No	Yes	Yes	No	No	No	No	No	No	No	
Conduct analysis on	2021	Yes/No	Yes	No	Yes	Yes	No	No	No	No	No	No	No	
wastewater	2020	Yes/No	Yes	No	Yes	Yes	No	No	No	No	No	No	No	
BOD	2021	tons	970.57	-	0.000136	0.000848	-	-	-	-	-	-	-	
ВОО	2020	tons	No measurement	-	0.00021	0.00077	-	-	-	-	-	-	-	
COD	2021	tons	32,521.82	-	0.000564	0.000207	-	-	-	-	-	-	-	
COD	2020	tons	9,462.12	-	0.00056	0.0019	-	-	-	-	-	-	-	
Total suspended	2021	tons	3,410.42	-	0.000136	0.000393	-	-	-	-	-	-	-	
solids (TSS)	2021	tons	7,383.05	-	0.00013	0.00037	-	-	-	-	-	-	-	
T-N	2021	tons	936.20	-	0.00027757	0.000746	-	-	-	-	-	-	-	
T-N	2021	tons	301.23	-	0.00015	0.00067	-	-	-	-	-	-	-	
T-D	2021	tons	No measurement	-	No measurement	No measurement	-	-	-	-	-	-	-	
Т-Р	2021	tons	No measurement	-	No measurement	No measurement	-	-	-	-	-	-	-	
	Total Water Pollutant Emission: 37,839.01 tons													



## ACHIEVEMENTS ON 2020 ROADMAP

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### Roadmap 2020 Actions



Integrate Supplier Sustainability Assessment System



Obtain 14001: 2015 Environmental Management Standard Certification for all sites



Increase CDP Climate Change score gradually



Increase CDP Water Security score gradually



Complete GHG verifications for Scope 1 and Scope 2 for all sites



Integrate sustainability topics in Employee Idea Platform

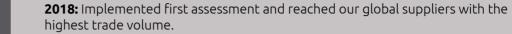


Waste Reduction



Start Water Program at all sites. (General information on the water reduction projects planned to be initiated in 2021 are located under <u>Water Management</u> section.)

### What We Achieved by 2020



2019-2020: Implemented a more comprehensive survey and reached 78% of global and 28% of our local suppliers on average.

Turkev: Completed recertification

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**Indonesia:** Completed in May 2017 Brazil: Completed in April 2018

**Thailand:** Completed in July 2018 Chattanooga USA: Completed in May

Increased our score by two levels every year 2017: D; 2018: C-; 2019: B 2020: A-

Increased our score by one level every year **>>>** 2017: C; 2018: B-; 2019: B 2020: A-

> **2018:** Completed Turkey Scope 1 verification by a third party 2020: Completed Scope 1 and 2 data verification of Turkey, Indonesia and Chattanooga sites.

**2017:** Integrated all key issues in the system and started collecting thousands of employee feedback regarding sustainability topics.

In the first five years of the roadmap our waste management targets addressed environmental compliance.

Considering the impacts of water usage in our operations and the expectations of our key stakeholders, we did not focus on this action until 2019.

With the new roadmap we prepared in 2019, we set long term water consumption reduction targets of all our global plants starting from 2020.

### SUSTAINABILITY MATERIALITY COMMUNICATIONS

### Sustainability Materiality Communications

#### 2015

- Sustainability Project Team / Sustainability Strategy Workshop
- Sustainability Project Team / Stakeholder Prioritization
- Kordsa Executive Lead Team / Sustainability Strategy Survey and one-on-one interviews
- Employees / Sustainability Performance Evaluation Survey
- Customers / Sustainability Interviews

#### 2016

• Employees / Sustainability Performance Evaluation Survey

#### 2017

- Sustainability Task Force / Sustainability Strategy Review Workshop
- Employees / Sustainability Performance Evaluation and Materiality Survey
- Customers / Online Materiality Sustainability Survey

#### 2018

• Employees / Sustainability Performance Evaluation Survey

#### 2019

- Sustainability Task Force / Sustainability Strategy Review Workshop
- Employees / Sustainability Performance Evaluation and Materiality Survey
- Customers / 1-to-1 meetings
- Shareholders and Investors / Direct written and verbal communication channels

#### 2020

- Kordsa Executive Lead Team / Sustainable Development Goals and Focused Targets Determination Meetings
- Employees / Sustainability Performance Evaluation and Materiality Survey
- Customers / Online Sustainability Materiality Survey

#### 2021

• Kordsa Executive Lead Team / Review Meetings on strategy, material topics and targets

The communication platforms for our employees and other key stakeholders, together with their content and communication frequency, are included in the Key Stakeholder Communication Platforms table.



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# KEY STAKEHOLDER COMMUNICATION PLATFORMS

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Stakeholders	Communication Platforms	Objective / Content of Communication	Communication Frequency
	Sustainability Evaluation Survey	Materiality and Performance	Once a year
	Sustainability Report	Sustainability Performance	Once a year
	Plant newsletters such as the Kordsa Magazine	To announce important developments about the company	Several times a year
	People Clip	To make notifications about the company	Continuous
	E-mails by CEO	To share important developments	As needed
Employees	Yammer	To enhance CEO communication and sharing developments about the Kordsa with employees	As needed
	Intouch	To enhance CEO communication	Three times a year
	All Stars	To select the best projects and most successful activities within the company	Once a year
	Global Leadership Summit (Kordsa GLS)	To review the previous year and share the vision of the next year	Once a year
	Social media	To share news about the company, products, and developments	Continuous
	Sustainability Survey	Sustainability Strategy	Once a year
	Sustainability Report	Sustainability Performance	Once a year
	Reinforcer Magazine	To share developments about the company, sector and technology	Twice a year
	Annual Report	To review the performance of the company in the previous year	Once a year
Customers	Press Section on Website	To announce new developments about the company through press releases	Continuous
	Magazines and Newspapers	To announce new developments about the company through press releases and interviews in both national and international publications	Continuous
	Social Media	To share news about the company, products and developments	Continuous
	E-mailing	To share developments about the company or collaborations exclusive to stakeholders	As needed
	Trade Fairs	To establish contact with existing and new customers	Several times a year
	Earning Calls	To announce mid-year results	Two times a year
Shareholders	General Assembly	To announce annual results	Once a year
	E-mail by request	To convey information on e-mail for those shareholders who request	Several times a year
	Newsletters	To announce important developments about the company through the media	Continuous
	TV Programs	To announce important developments about the company	Several times a year
	Magazines and Newspapers	To announce important developments about the company	Several times a year
Investors	Web Site	To announce important information	Continuous
	Public Disclosure Platform	To publish the report of the Capital Markets Board To announce special situations	Four times a year As needed
	Telephone/E-mails	To respond to investors' request for information about the company	Upon request from the investo
	Social Media	To share news about the company, products and developments	Continuous

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## **EMPLOYEE SUSTAINABILITY SURVEY**

<b>Employee Sust</b>	ainability Survey	Performance	Section	Results	
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Liliproyee Sustainability Surve	y remons	ialice Sect.	TOII KESUIC	<b>5</b>	
Performance Topic	2019 (%)	2020 (%)	Change (%)	No Idea (%)	Com
Manages of business processes in line with corporate governance principles which are transparency, fairness, accountability and responsibility	87	79	-8	5	In the sustainability surv
Adequacy of policies, trainings and audits on compliance including anti-bribery, anti-corruption and anti-competitive behavior	84	85	+1	3	or minus 1% to 3% chan those changes were ma action on that issue so f
Practices efficient use of raw materials	69	68	-1	10	Because of the pandem dramatic changes in the
Adequacy of investments and projects to assure energy efficiency	68	66	-2	11	compared to previous y  We believe, the promine
Adequacy of projects and preventive measures to monitor and reduce emissions	65	61	-4	15	perception as the signif year's survey is particula plan an action for this to
Adequacy of practices to manage waste and wastewater to prevent environmental pollution	70	67	-3	12	perception check that w period where we are acc
Adequacy of practices to manage and efficiently use water resources	64	66	+2	14	dictates so.  We think that our emplo
Adequacy of measures sufficient to oversee and secure health and safety of its employees	87	86	-1	1	idea about the social an suppliers. Those who re
Significancy of economic value creation for its key stakeholders	81	79	-2	6	In 2020 we carried out a via online platforms. In trainings we provided to
Adequacy of policies, trainings and audits on human rights concerning its suppliers' operations	79	72	-7	11	The most important act
Adequacy of policies, trainings and audits on human rights in its locations	84	81	-4	6	sustainability works that and the successes gaine
Adequacy of employee communication channels to share their ideas and opinions with the management	78	78	0	2	take part in these effort
Adequacy of personal development and training programs provided for its employees	70	65	-5	3	
Adequacy of recruitment, placement and waging practices to support equal opportunities for women & men, and employee diversity	76	74	-2	3	
Adequacy of social development investments for the local community	71	67	-4	8	

In the sustainability surveys we have been conducting uninterruptedly since 2015, we have been observing a plus or minus 1% to 3% change in the general perception. Since those changes were marginal, we did not take a special action on that issue so far.

mments and Actions

Because of the pandemics experienced in 2020 we had dramatic changes in the way we worked and communicated compared to previous years.

We believe, the prominence of corporate governance perception as the significant area for improvement in this year's survey is particular to this period. Therefore, we will plan an action for this topic after seeing the results of a new perception check that will be carried out in an upcoming period where we are acclimatized to the new normal if it dictates so.

We think that our employees in general may not have an idea about the social and environmental audits regarding the suppliers. Those who replied "no idea" form 11% of the total.

In 2020 we carried out all trainings and other meetings via online platforms. In parallel to this, the length of the trainings we provided to our employees got shorter.

The most important action that we will take in the light of these results is to increase the internal communication on sustainability works that are carried out across the company and the successes gained and encouraging our employees to take part in these efforts.

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# **OHS COMMITTEES**

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Management-Worker Health a	nd Safety Committees		
Name of Committee	Definition	Legal / Voluntary	Participants
OHS Committee	Official meeting of the representatives of the employer and employees. All legal decisions are made by this committee.	Legally required	Employer representatives, union representatives, managers, subcontractor representatives
Emergency Response Team	Organized for all shifts in the plant.	Legally required	Blue and white-collar employees
Electrical Safety Committee	Lays down all rules and standards on electricity hazards in the plant; makes inspections and provides training.	Company initiative	Mostly white-collar and also blue-collar employees
Process Safety Management	Carries out activities and inspections for explosions, fires, leaks and occupational accidents that may arise from the production process. Have annual targets.	Company initiative	White-collar employees
Hazardous Chemicals Committee	Identifies hazards wherever chemicals are used, conducts risk analyses, sets safety markings properly and provides trainings on chemical hazards.	Company initiative	White and blue-collar employees
Ergonomics Committee	Oversees the identification of ergonomic risks and improvement works.	Company initiative	White-collar employees
Occupational Health & Safety Management Committee	Works to improve OHS performance, disseminate OHS culture, manage improvement and development activities, and review performance.	Company initiative	All department managers and representatives, and Operations Director as Chairman
SHE TPM Committee	Oversees the work on developing SHE consciousness and culture and performance improvement.	Company initiative	White and blue-collar employees

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### **MEMBERSHIPS**

### CEO in Management of Memberships (Turkey)

DEİK Foreign Economic Relations Board / Member of General Board

DEİK Turkey - USA Business Council / Member of Executive Council

DEİK Turkey - Indonesia Business Council / Member of Executive Council

DEİK Turkey - Thailand Business Council / Member of Executive Council

### Other ELT Members in Management of Memberships (Turkey)

DEİK Turkey - Brazil Business Council / Member of Executive Council

TURKCHAM - Turkish Chamber of Commerce / Board Member - Indonesia

#### **TURKEY**

**UN Global Compact** 

Borsa İstanbul Sustainability Index

DEGUDER Earthquake Reinforcement Association

ERTA Integrated Reporting Turkey Association

İTHİB Turkish Textile Employer's Associations

İTKİB The General Secretariat of Istanbul Textile & Apparel Exporter's Associations

iSO Istanbul Chamber of Industry

Equality at Work Platform

iTO Istanbul Chamber of Commerce

**KALDER Quality Association** 

Rubber Association

KID Corporate Communication Professionals Society

Kocaeli Chamber of Industry

Kocaeli Chamber of Commerce

Turkish Composites Manufacturers Association

KUB Additive Manufacturers Association

LES Turkey Technology and License Executives Society

MKK Central Registry Agency

SAHA Istanbul - Defense, Aviation and Space Cluster

TBCSD Turkish Business Council of Sustainable Development

Sustainability Academy

TAEK Turkish Atomic Energy Authority

TAYSAD Automotive Vehicles Suppliers Association

TEGEP Training and Development Platform

TEID Turkish Ethics and Reputation Association

TIDE Turkey Internal Audit Institute

TMMOB Chamber of Mechanical Engineers

TTSİS Turkish Textile Industry Employers' Union

**Tunneling Association** 

THBB Turkish Ready Mixed Concrete Association

TÜSİAD Turkish Industry & Businessmen Association

TÜYİD Turkish Investor Relations Society

#### **INDONESIA**

AmCham Indonesia American Chamber of Commerce in Indonesia

APINDO The Employers' Association of Indonesia

HIBERKIBRA - Neighborhood Corporate Association

Indonesian Public Listed Companies Association

Indonesian Corporate Secretary Association

#### **THAILAND**

AEO Thai Authorized Economic Operator Importer & Exporter Association

FTI The Federation of Thai Industries

TNSC The Thai National Shippers' Council

DFT Department of Foreign Trade, Ministry of Commerce

Ayutthaya Personnel Management Group

#### **BRAZIL**

Bahia's Spinning and Weaving industries Union

COFIC - Industrial Foment Committee of Camaçari

FIEB/CIEB

ABRAFAS - Brazilian Association of Producers of Artificial and Synthetic Fibers

American Chamber of Commerce

#### **USA**

AFMA - American Fibers Manufacturers Association

ISIFM - International Society of Industrial Fabric Manufacturers

Turkish American Coalition

LBG Scotland County Chamber of Commerce

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# **UNGC CONTENT INDEX**

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Human Rights	<b>Principle 1:</b> Businesses should support and respect the protection of internationally proclaimed human rights.	Human Rights Community Development
	naman ngnes.	<u>communicy Bevelopment</u>
	<b>Principle 2:</b> Businesses should make sure that they are not complicit in human rights abuses.	Human Rights Community Development
Labor	<b>Principle 3:</b> Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	<u>Human Rights</u>
	<b>Principle 4:</b> Businesses should uphold the elimination of all forms of forced and compulsory labor.	<u>Human Rights</u>
	<b>Principle 5:</b> Businesses should uphold the effective abolition of child labor.	<u>Human Rights</u>
	<b>Principle 6:</b> Businesses should uphold the elimination of discrimination in respect of employment and occupation.	Equal Opportunities and Diversity
Environment	<b>Principle 7:</b> Businesses should support a precautionary approach and environmental challenges;	Environmental Management Approach
	<b>Principle 8:</b> Businesses should undertake initiatives to promote greater environmental responsibility.	Environmental Management Approach
	<b>Principle 9:</b> Businesses should encourage the development and diffusion of environmentally friendly technologies.	Environmental Management Approach
Anti- Corruption	<b>Principle 10:</b> Businesses should work against corruption in all its forms, including extortion and bribery.	Business Ethics

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# **INDIRECT IMPACTS FOR UN 2030** SUSTAINABLE DEVELOPMENT GOALS

SDG	Kordsa's Indirect Impacts
1 NO POVERTY	In our mother plant which is located in Izmit, we support and empower students to receive education in better conditions with our school renovation projects in the poor areas.
2 ZERO HUNGER	We do not have a project within the scope of Zero Hunger.
3 GOOD HEALTH AND WELL-BEING	Thanks to the rapid and comprehensive Covid-19 protection measures we took in 2020, our two facilities in Turkey received TSE COVID-19 Safe Production Certificate after detailed audits.
7 AFFORDABLE AND CLEAN ENERGY	With our solar energy investments in our facilities, we produce the energy that will be required for the use of the public instead of pulling it from the grid.
10 REDUCED NEQUALITIES	With our school renewal projects, we support the students here to receive education under the conditions of the wealthier segments, and reduce inequalities. We end all forms of discrimination within the company with our diversity and inclusion programs.
11 SUSTAINABLE CITIES AND COMMUNITIES	We carry out waste, water, material and energy management practices in our plants through we keep our environmental impacts on the cities we live in and the communities living here under control
14 LIFE BELOW WATER	There is no direct sea outfall in any of our facilities. All legal regulations and requirements are applied on wastewater management.
15 LIFE ON LAND	The scope of studies in Conservation of Biological Diversity is available on our <b>website.</b>
16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Kordsa Board of Directors carries out its activities with a corporate governance approach based on the principles of transparency, accountability, fairness and responsibility.



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## **GRI CONTENT INDEX**



For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of the report. The service was performed on the English version of the report.

STAKEHOLDER ENGAGEMENT

102-56

External assurance

GRI	101:	FOUND	DATION	2016
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GRI	102:	<b>GENERAL</b>	<b>DISCLOSURES</b>	2016	Location	of	Disclosure
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	ORGANIZATIONAL PROFILE	
102-1	Name of the organization	Page 137
102-2	Activities, brands, products, and services	Pages 9-10
102-3	Location of headquarters	Page 137
102-4	Location of operations	Page 11
102-5	Ownership and legal form	Corporation
102-6	Markets served	Pages 10-11
102-7	Scale of the organization	Page 9
102-8	Information on employees and other workers	Page 100
102-9	Supply chain	Pages 61-62
102-10	Significant changes to the organization and its supply chain	No significant changes
102-11	Precautionary Principle or approach	Pages 65-79
102-12	External initiatives	Page 3
102-13	Membership of associations	Page 123
	STRATEGY	
102-14	Statement from senior decision-maker	Pages 5-6
102-15	Key impacts, risks, and opportunities	Pages 26-28
	ETHICS AND INTEGRITY	
102-16	Values, principles, standards, and norms of behavior	Pages 15-16
102-17	Mechanisms for advice and concerns about ethics	Pages 23-25
	GOVERNANCE	
102-18	Governance structure	Pages 21-22

102-40	List of stakeholder groups	Page 35
102-41	Collective bargaining agreements	Page 85
102-42	Identifying and selecting stakeholders	Pages 34,35
102-43	Approach to stakeholder engagement	Pages 35-37
102-44	Key topics and concerns raised	Pages 20, 35, 38-40
	REPORTING PRACTICE	
102-45	Entities included in the consolidated financial statements	Page 137
102-46	Defining report content and topic boundaries	Page 19
102-47	List of material topics	Page 18
102-48	Restatements of information	No restatements
102-49	Changes in reporting	Page 3
102-50	Reporting period	Page 3
102-51	Date of most recent report	2020
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	GRI 201 ECONOMIC PERFORMANCE 2016		
CDI 103: Managamanh	103-1 Explanation of the material topics and its boundary	Page 19	
GRI 103: Management Approach 2016	103-2 The management approach and its components	Pages 61-63	
.pp. 656 2010	103-3 Evaluation of the management approach	Pages 61-63	
GRI 201 Economic	201-1 Direct economic value generated and distributed	Page 99	
Performance 2016	201-4 Financial assistance received from government	Page 99	
	GRI 204 PROCUREMENT PRACTICES 2016		
	103-1 Explanation of the material topics and its boundary	Page 19	
GRI 103: Management Approach 2016	103-2 The management approach and its components	Pages 61-63	
Approden 2010	103-3 Evaluation of the management approach	Pages 61-63	
GRI 204 Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Pages 61-63	
	GRI 205 ANTI-CORRUPTION 2016		
	103-1 Explanation of the material topics and its boundary	Page 19	
GRI 103: Management Approach 2016	<b>103-2</b> The management approach and its components	Pages 23-25	
Approach 2010	103-3 Evaluation of the management approach	Pages 23-25	
GRI 205 Anti-Corruption 2016	<b>205-2</b> Communication & training about anti-corruption policies and procedures	Pages 23-25	
CDT 300 ENVTDONME	NTAL STANDARDS SERIES	Location of	

OUT 200 FIATIONIE	NIAL STANDARDS SERIES	Disclosure
	GRI 301 MATERIALS 2016	
CDI 402: N4:	103-1 Explanation of the material topics and its boundary	Page 19
GRI 103: Management Approach 2016	103-2 The management approach and its components	Pages 66-68
-pprodei12010	103-3 Evaluation of the management approach	Pages 66-68
	<b>301-1</b> Materials used by weight or volume	Pages 66-68,110
GRI 301 Materials 2016	<b>301-2</b> Recycled input materials used	Pages 66-68,110
	<b>301-3</b> Reclaimed products and their packaging materials	Pages 66-68,110
	GRI 302 ENERGY 2016	
	103-1 Explanation of the material topics and its boundary	Page 19
GRI 103: Management Approach 2016	<b>103-2</b> The management approach and its components	Pages 69-71
Approacti 2016	103-3 Evaluation of the management approach	Pages 69-71
	<b>302-1</b> Energy consumption within the organization	Pages 69-71, 107
GRI 302 Energy 2016	<b>302-4</b> Reduction of energy consumption	Pages 69-71, 107
	<b>302-5</b> Reductions in energy requirements of products and services	Pages 69-71, 107
	GRI 303 WATER AND EFFLUENTS 2018	
	103-1 Explanation of the material topics and its boundary	Page 19
GRI 103: Management Approach 2016	<b>103-2</b> The management approach and its components	Pages 74, 77-79
Approacti 2016	103-3 Evaluation of the management approach	Pages 74, 77-79
	<b>303-1</b> Interactions with water as a shared resource	Pages 74, 77-79
	<b>303-2</b> Management of water discharge-related impacts	Pages 74, 77-79
GRI 303 Water and Effluent: 2018	303-1 Water withdrawal	Pages 113-114
2010	303-2 Water discharge	Pages 113-114
	303-3 Water consumption	Pages 113-114
	GRI 305 EMISSIONS 2016	
	103-1 Explanation of the material topics and its boundary	Page 19
GRI 103: Management Approach 2016	<b>103-2</b> The management approach and its components	Pages 72-73
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	<b>305-1</b> Direct (Scope 1) GHG emissions	Pages 72-73, 108-109
GRI 305 Emissions 2016	<b>305-2</b> Energy indirect (Scope 2) GHG emissions	Pages 72-73, 108-109
UKI 303 EIIIISSIOIIS 2016	<b>305-3</b> Other indirect (Scope 3) GHG emissions	Pages 72-73, 108-109
	<b>305-5</b> Reduction of GHG emissions	Pages 72-73
	GRI 306 WASTE 2020	
-	103-1 Explanation of the material topics and its boundary	Page 19
GRI 103: Management Approach 2016	<b>103-2</b> The management approach and its components	Pages 74-76
.pp. 00CII 2010	103-3 Evaluation of the management approach	Pages 74-76
	<b>306-1</b> Waste generation and significant waste-related impacts	Pages 74-76
	<b>306-2</b> Management of significant waste-related impacts	Pages 74-76
GRI 306 Waste 2020	<b>306-3</b> Waste generated	Pages 111-112
	306-4 Waste diverted from disposal (reuse, recycle etc.)	Pages 111-112
	306-5 Waste directed to disposal (incineration, landfilling etc.)	Pages 111-112

GRI 308 SUPPLIER ENVIRONMENTAL ASSESSMENT 2016		
103-1 Explanation of the material topics and its boundary	Page 19	
103-2 The management approach and its components	Pages 61-62	_
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#### Kordsa 2021 Sustainability Report – Reporting Guidance

This reporting guidance ("Guidance") provides information on the data preparation and reporting methodologies of indicators within the scope of the independent audit in the 2021 Kordsa Sustainability Report. Indicators within the scope of the audit include data from Turkey-Izmit, Indonesia and U.S.- Chattanooga locations, unless otherwise stated. The indicators include social indicators, environmental indicators and economic indicators. It is the responsibility of the Company's management to ensure that appropriate procedures are in place to prepare the indicators mentioned above in line with, in all material respects, the Guidance.

The data included in this quideline is for the FY 21 (1 January – 31 December 2021), fiscal year ended December 31, 2021, and as detailed in the "Key Definitions and Reporting Scope" section comprises only the relevant operations in Turkey and in the World that are the

responsibility of the Company by excluding information about group companies, affiliates, and subcontractors.

#### **General Reporting Principles**

In preparing this guidance document, consideration has been given to following principles:

- Information Preparation to highlight to users of the information the primary principles of relevance and reliability of information; and
- Information Reporting to highlight the primary principles of comparability / consistency with other data including prior year and understandability / transparency providing clarity to

### **Key Definitions and Reporting Scope**

For the purpose of this report, the Company defines:

Туре	Indicator	Scope
Social Indicators	Number of Employees by Gender	This indicator reflects the total number of employees and gender distribution of employees of the Company during the reporting period. This indicator covers all global locations of Kordsa.
	Gender Distribution of Employees in Managing Bodies	This indicator reflects the distribution of employees of the Company in managing bodies by gender. Managing bodies are categorized as senior management (ELT), director, manager, engineers and experts, supervisor, officer (white collar), operator and technician at Kordsa. This indicator covers all global locations of Kordsa.
	Employee Turnover Rate	This indicator reflects the ratio of resignation and termination of employment to the total number of employees in the reporting period. This indicator covers all global locations of Kordsa.
	Number of Hired Employees	This indicator reflects the age, gender and manager level distribution of the employees recruited during the reporting period. This indicator covers all global locations of Kordsa.
	Number of Employees Given Ethics Training	This indicator reflects the number of employees who received business ethics training in the reporting period. This indicator covers all global locations of Kordsa.
	Training Hours	This indicator reflects the total duration of the training given to the Company employees during the reporting period. Trainings reported in 4 main categories as: Professional Development, Personal Development, Occupational Health and Safety, and Other Trainings. This indicator covers all global locations of Kordsa.
	Occupational Health and Safety	This indicator reflects fatal accidents, accidents of high importance (excluding fatal accidents and recordable accidents), recorded accidents and total working hours of the reporting period for both Kordsa and sub-contractor employees.
	Number of Suppliers Evaluated in the Scope of Human Rights	This indicator reflects the number of suppliers that the company evaluates within the scope of human rights during the reporting period. This indicator covers all of global locations of Kordsa.



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Туре	Indicator	Scope			
Environmental Indicators	Energy Consumption	This indicator reflects the amount of energy directly and indirectly consumed during the Company's operations at locations within the scope of the audit (Turkey-Izmit, Indonesia, U.SChattanooga), during the reporting period			
	Electricity Consumption (kWh)	This indicator reflects the total purchased electricity consumption used for air conditioning, lighting, electrical equipment uses and other business operations that require electricity at the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Natural Gas Consumption (m³)	This indicator means the total purchased natural gas (volume - m³) consumption used for heating, cooking and other business operations that require natural gas at the relevant locations of the Company during the reporting period.			
	LPG Consumption (gallon)	This indicator reflects the total amount of LPG (volume - gallon) purchased and used in the relevant locations during the reporting period.			
	Diesel Consumption (l)	This indicator reflects the total purchased diesel (volume - l) consumption used for generators and company-owned cars at the relevant locations (Turkey- Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Gasoline Consumption (l)	This indicator reflects the total purchased gasoline (volume - l) consumption used for company-owned cars at all the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Ratio of Electricity Consumption from Renewable Sources to Total Electricity Consumption (%)	This indicator reflects the ratio of the electricity consumption provided by the company from renewable sources to all electricity consumption in the reporting period. This indicator covers all global locations of Kordsa.			
	Scope 1 and 2 Emissions (Ton CO <sub>2</sub> -e)				
	Direct (Scope 1) Greenhouse Gas Emissions (tCO <sub>2</sub> e)	This indicator means the emission of greenhouse gases due to the use of natural gas, LPG, diesel, gasoline consumption and refrigerants and fire extinguishers at the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Indirect (Scope 2) Greenhouse Gas Emissions (tCO <sub>2</sub> e)	This indicator means the emission of greenhouse gases due to the use of purchased electricity at the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Other Environmental Performance Data				
	Water Withdrawal (m³)	This indicator reflects the total water withdrawal (volume- m3) at the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Waste Management (ton)	This indicator reflects the total waste (by weight – ton) according to the type and disposal method where the Company operates, at the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
	Re-Used Material Rate (%)	This indicator reflects the rate of materials reused at the relevant locations (Turkey-Izmit, Indonesia, U.SChattanooga) of the Company during the reporting period.			
Economic Indicators	Ratio of sustainable products revenues to total revenue (%)	This indicator reflects the ratio of the Company's sustainable product revenue to total revenue during the reporting period. This indicator covers all global locations of Kordsa.			
	Number of Sustainable Products	This indicator reflects the number of sustainable products of the company. This indicator covers all global locations of Kordsa.			
	and Opex (TL)	This indicator reflects the expenditures made by the Company within the scope of R&D studies during the reporting period. This indicator covers all global locations of Kordsa.			
	Ratio of sustainability-oriented R&D budget to total R&D budget (%)	This indicator reflects the ratio of the sustainable-oriented R&D budget oriented to the total R&D budget for the reporting period. This indicator covers all global locations of Kordsa.			



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#### DATA PREPARATION

#### Social Indicators

#### **Employee Turnover Rate**

The following formula is used to calculate the employee turnover rate. The average number of employees in the reporting period is taken into account when calculating the total employee hours.

#### Formulas:

Employee Turnover Rate: Total Number of Employees Resigned and Employment Contract Terminated / Total Number of Personnel \* 100

#### Occupational Health and Safety (OHS) Indicators

The following definitions and formulas are used in the calculation of OHS data. The average number of employees in the reporting period is taken into account when calculating the total employee hours.

Major accidents (excluding fatal accidents and recordable accidents): Recordable accidents resulting in permanent disability or amputation

Recordable occupational accidents: Total of the accidents classified as Lost Workday Case (LWC), Medical Treatment Case (MTC), and Restricted Workday Case (RWC)

Lost Workday Case (LWC): When the worker cannot return to work the first workday following an occupational accident resulting in injury

Medical Treatment Case (MTC): When an accident occurs that require medical treatment and the injured person can return to work the first workday following injury

Restricted Workday Case (RWC): When the injured can return to work the first workday after injury, but is asked to work on another task, as he cannot perform his/her regular task.

#### Formulas:

Number of Registered Work Accidents: Number of accidents with lost workday + Number of accidents requiring medical treatment + Number of accidents causing restricted work

Rate of fatalities as a result of work-related injury: (Number of fatalities as a result of work-related injury / Total working hours) x 200,000

Rate of high-consequence work-related injuries (excluding accidents resulting fatalities and registered accidents): (Number of high-consequence work-related injuries (excluding accidents resulting fatalities and registered accidents) / Total working hours) x 200,000

Rate of recorded work-related injuries: (Number of recorded work-related injuries / Total working hours) x 200,000

#### Number of Suppliers Evaluated in the Scope of Human Rights

It has been obtained from the results of audits, evaluations and surveys covering human rights issues that Kordsa carries out within the scope of its suppliers in all its global operations. In this direction, the sustainability audit final report conducted by Kordsa, the assessment final report provided by the evaluator institution and the results of the sustainability surveys conducted by Kordsa were followed.

#### **Environmental Indicators**

#### **Energy Consumption**

Energy consumption data are reported for electricity and primary fuel sources, which comprise natural gas. LPG. diesel, and gasoline.

Electricity and natural gas consumption data are obtained from supplier meters and service provider invoices. LPG and diesel consumption for the use of generators and company owned vehicles are obtained from service provider invoices. Gasoline consumption for the use of company owned cars data are obtained from service provider

Since common area consumption is also included in the total amount in invoices shared for Turkey-izmit electricity consumption, common area consumption is excluded from Kordsa electricity consumption.

In the invoices shared for the electricity consumption of U.S.-Chattanooga, electricity consumption of other businesses is excluded from Kordsa electricity consumption, since there are businesses other than Kordsa in the location.

The Company has used the following published conversion factors:

- In Indonesia, since the diesel supply unit is reported in gallons, the conversion factor of [1 gallon \* (3,7854) \* liter / gallon] is used for conversion to liters.
- In Indonesia, since the refrigerant weight unit is reported in pounds, the conversion factor of [1 lb. \* (0,4536) \* kg / lb.] is used in the conversion into kg.
- · At Chattanooga (US), since diesel and gasoline supply units are reported in gallons, the conversion factor of [1 gallon \* (3,7854) \* liter / gallon] is used for conversion to liters.
- At the Chattanooga (US), since the refrigerant weight unit is reported in pounds, the conversion factor of [1 lb. \* (0,4536) \* kg / lb] is used in the conversion into kg.

#### Scope 1 and 2 Emissions

Scope 1 and scope 2 carbon emissions are calculated in accordance with ISO 14064-1 and with the operational control principle within the framework of the "GHG Protocol Corporate Accounting and Reporting Standard".

 $CO_2$  equivalent factors for emissions  $CO_2$ ,  $CH_4$ ,  $N_2O$ , HFCs (refrigerant gas) and fire extinguishers were used in calculations. The emission factors used are detailed in the table below.  $CO_2$ ,  $CH_4$  ve  $N_2O$  conversation factors were taken from "DEFRA (İngiltere Cevre, Gıda ve Köy İşleri Bakanlığı/Department for Environment, Food and Rural Affairs) 2021 Emission Factors" (https://www.gov.uk/government/publications/ greenhouse-gas-reporting-conversion-factors-2021). The US-Chattanooga plant's natural gas conversion factors are based on the "Emission Factors for GHG Inventories" document published by the US EPA (United States Environmental Protection Agency). The CO<sub>2</sub> equivalent factors resulting from the emissions of HFCs (refrigerant gas) and fire extinguishers were determined on the basis of the 5th Assessment Report (AR5) published by the International Panel on Climate Change (IPCC).

The electrical energy emissions consumed from the grid are calculated using the CO<sub>2</sub> emission factors published by the International Energy Agency in 2021 for the relevant locations. In the US-Chattanooga location, the "EPA Power Profiler Zipcode Tool" published by the EPA (United States Environmental Protection Agency) was used.



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Emission Factors - Scope 1	CO <sub>2</sub>	CH₄	N₂O	Total ton CO <sub>2</sub> -e
Diesel (kg/lt)	2,66807	0,00026	0,03720	2,70553
Gasoline (kg/lt)	2,32567	0,00732	0,00671	2,33969
Natural Gas (kg/m3)	2,01754	0,00274	0,00107	2,02135
LPG (kg/lt)	1,55491	0,00121	0,00097	1,55709
Refrigerant gases - R123	79			97
Refrigerant gases – R134A	1300			1300
Refrigerant gases – R410A	1923			1923
Fire extinguishers – CO <sub>2</sub>	1			1
Fire extinguishers – Fe36	8060			8060

Emission Factors – Scope 2 (kg/kWh)	kgCO₂-e/kWh	
Electricity (renewables)	0,000	
Turkey Electrical energy (grid)	0,431	
Indonesia Electrical energy (grid)	0,762	
US Electrical energy (grid)	0,421	



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#### Other Environmental Performance Data

Within the scope of the water withdrawal data, the total amount of water consumed at the relevant locations of the Company was calculated.

It covers groundwater and municipal water in Turkey-Izmit, surface water in Indonesia, surface water and municipal water in America-Chattanooga.

Consumption data in Turkey-Izmit and Indonesia locations were obtained from meter bills and consumption reports. In the US-Chattanooga location, the municipal water consumption was calculated from the meter bills and the water drawn from the river was calculated from the flowmeter reports followed from the field.

Within the scope of waste data, waste disposal amounts were calculated with the waste declaration forms received from the relevant locations of the Company.

Reused materials consist of steel shells, carton separators, pallets and tube materials that the Company uses in its production processes. Reused materials are considered as materials recovered from the customer. This amount is calculated by subtracting the purchased materials from the materials used in production.

#### Formulas:

Reused material ratio (%) = (Total number of materials used – Number of materials purchased) / Total number of materials used) x 100

#### **Economic Indicators**

The following definitions and formulas are used in the calculation of economic indicators.

#### **Sustainable Products and Services**

The methodology based on the European Union Sustainable Finance Taxonomy study has been taken into account in the classification of sustainable products. In this context, the environmental impacts of the Company's financial activities were evaluated under mitigation, transition and enabler categories. Category definitions are given below.

Mitigation: It covers products and services that provide benefits related to the direct reduction of environmental resource use and carbon emissions.

Transition: It covers products and services that are resource and/or carbon-intensive in

nature, but related to the transition to more sustainable technologies.

Enabler: It covers products and services that create a positive environmental impact on customer operations or are provided as inputs to sustainable industries.

There are a total of 20 sustainable products, 6 in composite production, 4 in construction materials, and 10 in rubber products, which the company has grouped within these categories in 2021.

Sustainable product and service revenues represent the Company's revenues from products and services that fall under the above-mentioned sustainable products and services. The income of the products determined as sustainable was obtained through the product-based sales lists, and the total income from the related product types was calculated within the scope of this indicator.

The ratio of sustainable product and service revenues to total revenue is calculated by dividing the total revenue from sustainable products and services by the Company's total revenues in the reporting period. Its total revenue represents the total revenue earned by the Company as of the end of the reporting year and stated in the Kordsa Annual Report published as of 31.12.2021.

#### Formulas:

Ratio of Sustainable Product and Service Revenues to Total Revenue = Sustainable Product and Service Revenues / Total Revenue

#### **R&D Expenditures**

R&D expenditures represent the Company's R&D expenditures, including Capex and Opex, in the reporting period. In this indicator, the total amount is calculated from the expenditures made within the approved budget of the Company.

Sustainability-oriented R&D budget refers to the sustainability-oriented R&D budget of the Company in the reporting period. In these indicators, the total amounts are formed from the expenditures made within the approved budget of the Company.

Ratio of Sustainability-Oriented R&D Budget to Total R&D Budget (%) = Sustainability-Oriented R&D Budget / Total R&D Budget

#### Restatement

The measuring and reporting of sustainability-related data inevitably involves a degree of estimation. Restatements are considered where there is a change in the data of greater than 5 percent at the Company level.



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## KORDSA 2021 EXTERNAL ASSURANCE REPORT









#### The Company's Responsibility

The Company is responsible for the content of 2021 Sustainability Report and the preparation of the Selected Information in accordance with the Reporting Guidance. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of Selected Information that is free from material misstatement, whether due to froud or error.

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. The absence of a significant body of established practice on which to draw to evaluate and measure nonfinancial information allows for different, but acceptable, measures and measurement techniques and can affect comparability between entities. The precision of different measurement techniques may also vary Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the fielected Information in the context of the Reporting Guidance.

In particular, for carbon emissions from energy used is based upon, inner alia, information and factors processed internally and/or derived by independent third parties as explained in the Reporting Gui Our assurance work has not included examination of the derivation of those factors and other third-party

#### Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethios for Professional Accountants issued by the International Ethics Standards Sourd for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and dur-cars,

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehe system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



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# KORDSA 2021 EXTERNAL ASSURANCE REPORT



#### Our Responsibility

Our responsibility is to form a conclusion, based on limited assurance procedures, on whether anything has come to our attention that causes us to believe that the Selected Information has not been properly prepared. in all material respects in accordance with the Reporting Guidance. We conducted our limited assurance engagement is accordance with International Standard on Assurance Engagements 2000 (Revised).

Assurance Engagements other than Audits or Escience of Historical Financial Information, and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements 3410, Assurance Engagements on Greenhouse Gus Statements, issued by the International Auditing and Assurance

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement A restrict constructive engagement of the contractive facilities and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assumance engagement.

The procedures we performed were based on our professional judgment and included impairies, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriatessess of quantification methods and reporting policies, and agreeing or occording with underlying records.

Given the circumstances of the engagement, in performing the procedures listed above we:

- Made inquiries of the persons responsible for the Selected Information;
- Understood the process for collecting and reporting the believed information. This included analysing the key processes and controls for managing and reporting the Selected.
- Evaluated the accross data used to prepare the delested information and re-performed. selected examples of calculation;
- Performed limited substantive testing on a selective basis of the preparation and collation of
- the Selected Information prepared by the Company and; Undertook analytical procedures over the reported data.

#### Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has some to our attention that causes so to believe that the Company's Selected Information for the year ended 3s December poin, is not properly prepared, in all material respects, in accordance with the Reporting.





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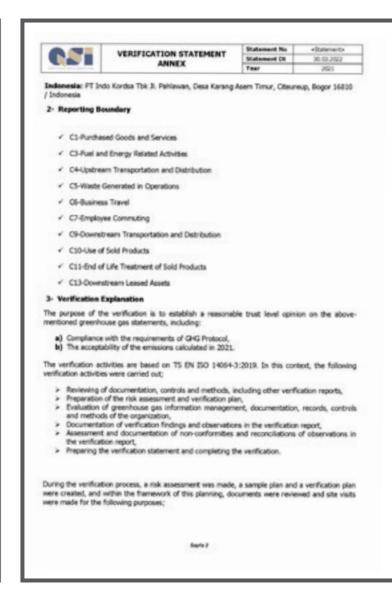




# KORDSA 2021 SCOPE 3 GHG VERIFICATION REPORT AND CERTIFICATE



Chattanooga: Kordsa, Inc. 4501 North Access Road Chattanooga TN 37415-9990 / USA







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## REPORT CONTACTS

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https://twitter.com/KordsaOfficial?lang=en

Twitter: @KordsaOfficial



https://www.instagram.com/kordsaofficial/

Instagram: @kordsaofficial



https://www.youtube.com/channel/UCsQNfTuEdUNYgNh0OFGbYrw

Youtube: @kordsa



https://www.linkedin.com/company/kordsa/

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