

# SUSTAINABILITY REPORT 2017



THE REINFORCER

# CONTENTS

### ABOUT OUR REPORT 3

### MESSAGES TO OUR STAKEHOLDERS 4

CORPORATE PROFILE 6 KORDSA FACTS AND FIGURES 7 PRODUCTS, SECTORS, MARKETS 8

### STRATEGY AND GOVERNANCE 10

CORPORATE GOVERNANCE 11 BUSINESS ETHICS 12 SUSTAINABILITY MANAGEMENT 13 IMPACTS ALONG THE VALUE CHAIN 19 TARGETS AND COMMITMENTS 22 SUSTAINABILITY PROJECTS OF 2017 23 AWARDS AND ACHIEVEMENTS 26

### **ECONOMIC PERFORMANCE 27**

CONTRIBUTIONS TO THE ECONOMY 28 R&D AND INNOVATION 30 PROCUREMENT AND SUPPLIERS 33 CUSTOMER PRIVACY 34

### SOCIAL PERFORMANCE 35

EMPLOYMENT 36 HUMAN RIGHTS ASSESSMENTS 39 TRAINING AND EDUCATION 40 OCCUPATIONAL HEALTH AND SAFETY 42

### **ENVIRONMENTAL PERFORMANCE 44**

MATERIALS MANAGEMENT 45 ENERGY & EMISSIONS MANAGEMENT 47 WASTE MANAGEMENT 48 WATER MANAGEMENT 50 BIODIVERSITY CONSERVATION 50

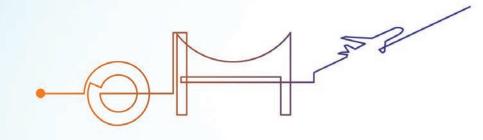
### PERFORMANCE INDICATORS 51

ECONOMIC PERFORMANCE INDICATORS 51 SOCIAL PERFORMANCE INDICATORS 52 ENVIRONMENTAL PERFORMANCE INDICATORS 54

### ANNEXES 56

MEMBERSHIPS 56 GRI CONTENT INDEX 56 CONTACTS 59

# WE REINFORCE LIFE



# ABOUT OUR REPORT



### ABOUT

In our excellence journey of being a sustainable company as Kordsa, we present our stakeholders the fourth sustainability report that reflects our economic, environmental and social performance in 2017. With this report we would like to give our stakeholders the opportunity to evaluate our efforts to measure, monitor and manage the impacts resulting from our operations.

### THE SCOPE

Unless otherwise stated, the data in this report covers Kordsa's activities from January 1, 2017 to December 31, 2017. This year the scope of our report has not changed. We explain how we defined our report content and topic boundaries in the Strategy and Governance section of this report.

### THE PRINCIPLES

This report has been 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, as well as the principles of UN Global Compact that we signed in 2014, and 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.

### **NEXT REPORT**

We plan to publish our next report, which will cover our sustainability performance of 2018, in the second half of 2019.

# MESSAGE TO OUR STAKEHOLDERS



### Distinguished Stakeholders,

Since we signed the UN Global Compact in 2014, we are pleased to share with you the fourth sustainability performance report of Kordsa, which we publish annually. Sabancı Group's vision of 'Sabancı of New Generation' focuses on technology, digitalization and sustainability. This vision aims to realize value added production and benefits for the society we live in while acting sustainable at the same time. It addresses not only today's but also future's direction through technology, R&D and innovation.

At Kordsa, as the technology and innovation leader of Sabanci Group, we manage sustainability by innovative technologies with the focus on humans and environment, and also with the aim of creating value for our stakeholders, notably for our workers and our customers. In our journey that started 45 years ago, we continue to manage the economic, social and environmental impacts of our operations based on the Ethical Principles of the Sabanci Group.

In 2016, we took our place in the BIST Sustainability Index, among the companies with the highest corporate sustainability performance. As we create value for our stakeholders on one side and for our shareholders on the other, we are honored to be listed among the sustainability forerunners in our country.

With a belief that we can only give direction to technology of today and future through open innovation model, we established Composite Technologies Center of Excellence in 2014 to also serve the vision of 'Sabancı of New Generation'. With this initiative, we gathered university and industry under one roof to develop, produce and export high technology composite materials for both Turkey and to the whole world. In parallel, we continue with our efforts to commercialize these products for automotive and aviation industries.

We are an active player in the global tire reinforcement market, and today we reinforce 1 out of 3 automobile tires, and 2 out of 3 aircraft tires manufactured in the world. With the new eco-friendly dipping technology we developed, we aim to realize an important transition in the tire industry regarding sustainability and environment. By the end of 2017, we increased our patent portfolio by 60%. As a result of our efforts to produce lighter and more durable tires and composite materials using less energy and less materials, we applied for 670 patents and made 153 inventions in 2017. For sustainable development, we do not only invest in new technologies but also use our resources efficiently and invest in occupational health and safety.

In the future we will continue to create value for our customers and investors, support the development of our employees, and expand our "Reinforce Life" vision all around the world by

Kind Regards,

Cenk Alper Chairman



### Dear Stakeholders,

We, as Kordsa, intend to produce "sustainable technologies" with every step and our investments on the way to our mission to reinforce life. We know that future will bring us great breakthroughs, transformations and progress as well as laying a burden on us. We set our targets by embracing this responsibility. We thrive on producing sustainable technologies to reinforce not only today but tomorrow as well.

With this conscience and responsibility in mind, we continue to share with you our material sustainability issues, management approach, future plans, targets and best practices initiated by our employees hereby our fourth report on our sustainability performance in 2017. The materiality works revealed that business ethics, human rights, occupational health and safety, long-term employment along with training and education are the sustainability topics prioritized by our top managers, employees and customers mutually.

In 2017, we continued to operate with a mission of zero accident in four continents thanks to our safety projects such as Safety Experience Center. We did not only sign the United Nations Women's Empowerment Principles and the Equality at Work Declaration but also prioritized equality at work and diversity topic in our employment agenda. We continued to support personal and professional development of our employees through platforms such as KEEP and All Stars.

Kordsa Brazil was listed among "The Best 150 Employers" by Você S.A. Additionally, it is honored by a special award with 80.5 points by IFT index that shows work place happiness. Kordsa Brazil was raised to third place in the Bahia Region Great Place to Work list. As a global reinforcement brand, we oversee all our operational processes with our mission to reinforce life notion in an effort to contribute to our society and provide a sustainable future. Our operational priorities include material, water and energy efficiency used in production. These priorities are followed by waste and emission reduction along with preserving biodiversity. Our R&D and innovation works play a major role in managing these processes with ease and creating eco-friendly products.

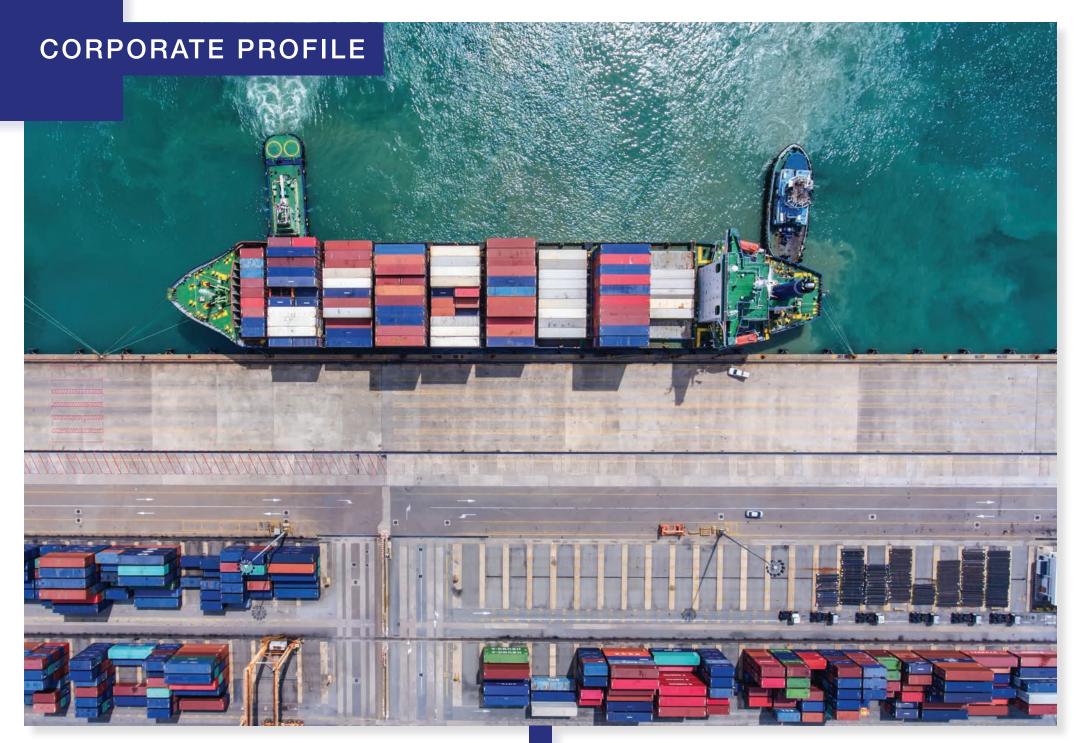
We aim to create a more sustainable world with the products and technologies we develop. Our products that reduce energy consumption by improving wet grip in the tire industry, composite technologies that result in lighter vehicles and less carbon emissions, and more durable and practical solutions in construction reinforcement industry enable us to touch and continue to reinforce all parts of life.

We will continue to reinforce life by maintaining our sustainable growth rate through our human and ecofriendly products and practices.

Kind Regards,

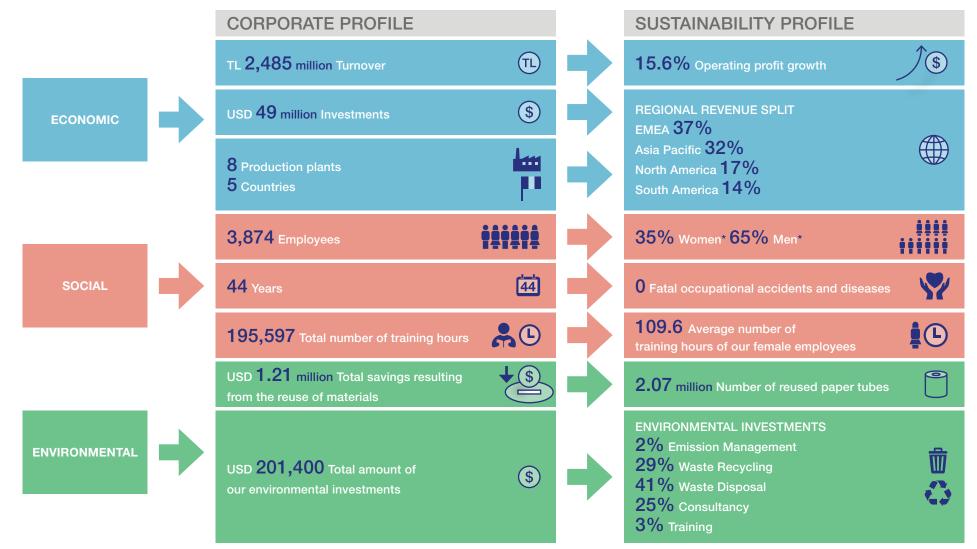
Alach

Ali Çalışkan CEO



# CORPORATE PROFILE KORDSA FACTS AND FIGURES

As Kordsa, we are developing reinforcement technologies for a safer, more efficient and sustainable world. Today Kordsa technologies reinforce one third of the automobile tires and two third of the aircraft tires produced in the world. With our tire reinforcement technologies, we reduce the fuel consumption by reducing the friction resistance and contribute to the production of lighter vehicles with our composite technologies. We offer construction reinforcement technologies which stand out by their low carbon emission and durability for sustainable building projects.



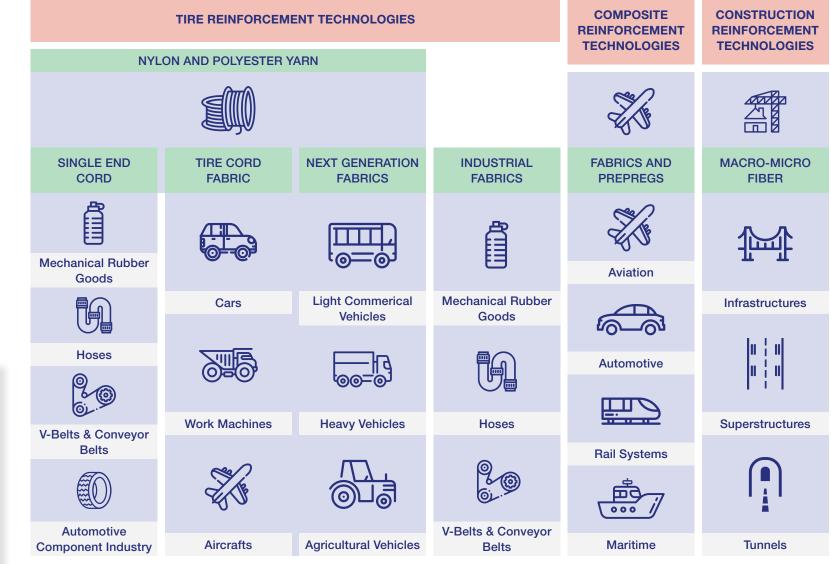
\* Data represents white-collar employees. Among all employees, the rate of women is around 12%.

Kordsa operates in three business lines; tire reinforcement technologies, composite technologies and construction reinforcement technologies.

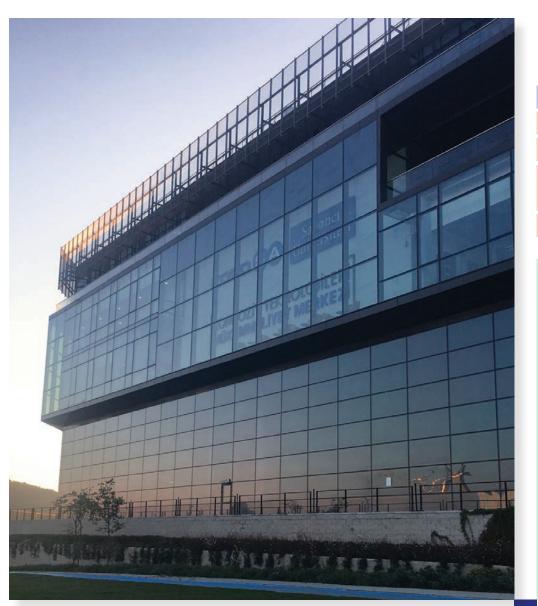
In tire reinforcement technologies, Kordsa is the leading global supplier of high tenacity Nylon 6.6 and polyester industrial yarns as well as single end cord products. We supply our tire reinforcement technologies to tire manufacturers spreaded all around the world.

We serve automotive, aviation and sports equipment markets with our composite technologies and construction market with our concrete reinforcement technology KraTos.





# CORPORATE PROFILE PRODUCTS, SECTORS, MARKETS



Nylo Adja	on Yarn acent Cord Fabric	76%	20%
REGIONS	PRODUCTS	TURN	OVERS
North America	NY6.6, TCF	ть 42	1 Million
South America	PET, SEC, TCF	т∟ 33	7 Million
EMEA	Y6.6, PET, SEC, TCF, Kratos	t <b>∟ 92</b> 2	2 Million
Asia Pacific	IY6.6, PET, TCF	ть 80	5 Million

**REVENUE SPLIT** 



9

# STRATEGY AND GOVERNANCE



## STRATEGY AND GOVERNANCE

### CORPORATE GOVERNANCE

As Kordsa, we execute all our activities with principles of complying regulations and ethical values as well as with the awareness of our social and environmental responsibilities in every geography we operate.

### **CORPORATE GOVERNANCE**

Kordsa performs its operations in conformity with the Corporate Governance Principles published by the Capital Markets Board which are transparency, fairness, responsibility and accountability. Our Board of Directors consists of six members in total; one female member is also a member of Corporate Governance Committee and two independent members are also members of Audit, Early Risk Identification and Corporate Governance Committees. Only the Chairman of the Board and the Deputy Chairman hold executive functions.



**80%** of our employees who responded to the sustainability assessment survey think that...

KORDSA MANAGES ALL ITS BUSINESS PROCESSES IN LINE WITH CORPORATE GOVERNANCE PRINCIPLES, BEING TRANSPARENT, FAIR, ACCOUNTABLE AND RESPONSIBLE.

COMMITTEES REPORTING TO THE BOARD
Audit Committee
Corporate Governance Committee Female members: %17
Early Risk Identification Committee

COMMITTEES REPORTING TO THE BOARD	RESPONSIBILITY ON ECONOMIC IMPACTS	RESPONSIBILITY ON SOCIAL IMPACTS	RESPONSIBILITY ON ENVIRONMENTAL IMPACTS
Audit Committee	Economic Performance	Compliance and Anti-Corruption Customer Privacy Supplier Assessments	-
Corporate Governance Committee Female members: %17	Economic Performance	Compliance and Anti-Corruption Employment Human Rights Assessments	-
Early Risk Identification Committee	All topics	Compliance and Anti-Corruption Occupational Health and Safety Customer Privacy	All environmental topics

### BUSINESS ETHICS

### INTERNAL STAKEHOLDER VIEW

85% of our employees who responded to the sustainability assessment survey think that...

KORDSA'S POLICIES, TRAININGS AND AUDITS ON COMPLIANCE INCLUDING ANTI-BRIBERY AND ANTI-CORRUPTION ARE ADEQUATE.

### **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 covers four main topics, namely legal obligations, integrity, confidentiality and conflict of interest. Kordsa Code of Business Ethics is available in the native languages of the countries we operate in (Turkish, English, Bahasa, Thai, and Portuguese) and is published on our website. http://www.kordsa.com/ethics\_code.asp?d=en http://www.kordsa.com/ethics\_code.asp?d=tr

Stakeholders who would like to report an incident or file a complaint can find the names, e-mail address (etik.tr@kordsa.com) and phone numbers of our Code of Ethics Consultants on our company's website.

The processes of ethics management are also explained on our website.

http://www.kordsa.com/Business-Ethics.asp?d=en

### **COMPLIANCE MANAGEMENT**

The Legal Obligations topic under Kordsa Code of Business Ethics governs the principles of compliance management in our company. We realize all our domestic and international operations and transactions in line with national legislations and international law, and provide accurate, complete and clear information to the official bodies and institutions in a timely manner.

At Kordsa Turkey we have not received any monetary or administrative penalties during the reporting period for breach of any laws or regulations, including those on the environment. There was not any case brought to our attention through conflict resolution mechanisms, either. Our goal is to continue our 'zero negative impact' performance of 2017 in 2018.

### **ANTI-CORRUPTION**

Anti-corruption is one of the ten fundamental principles of the UN Global Compact that Kordsa signed in 2014. We published Kordsa Anti-Corruption and Anti-Bribery Policy in 2015, which is based on Turkish law, covering all our employees, suppliers and customers. It is publicly available on our web site.

Communication and trainings on anti-corruption in Kordsa cover all our employees in line with our Code of Business Ethics. Ethics Committee and Internal Audit functions monitor cases on anti- corruption, whistleblowing being also in charge of sanctions and reports to Sabanci Holding Ethics Committee.

In the reporting period, there were not any confirmed corruption or bribery cases concerning our operations; any cases where an employee was dismissed or given a disciplinary penalty on charges of corruption; any contract with business partners that was terminated or failed to be renewed due to violations related to corruption; or any public lawsuit opened against our company or our employees because of corruption.

### SUSTAINABILITY MANAGEMENT

Within the scope of our 2020 Sustainability Road Map and with the efforts of our employees, we continously improve our processes and focus on growth that creates sustainable value for all our stakeholders by balancing the use of our global resources.

### SUSTAINABILITY ROAD MAP 2020

Considering our material sustainability topics as Kordsa, we prepared a five-years sustainability road map which was approved by Executive Leadership Team during the last quarter of 2016. Taking 2016 as base year we planned our sustainability management actions towards 2020. We review our targets annually, revize our action plans when necessary and share our performance results with our stakeholders through this report.

### SUSTAINABILITY TASK FORCE

With the participation of specialists and managers from different disciplines and departments, we established Kordsa Sustainability Task Force in 2014. Members of the team are selected in accordance to our material sustainability topics. Sustainability Task Force plays an important role in implementing the sustainability strategy of our company along with the Executive Leadership Team and also contributes to the development our sustainability reports.

MEMBER NAME	JOB TITLE
Ayşe Gürsoy	Brand Marketing and Corp Com Specialist
Cansu Bozdağ	Market Development Specialist
Ece Otlu	Lawyer
Erhan Kop	Project Coordinator
Fatih Çakır	Global S&OP Manager
Ferhat Uzun	Continuous Improvement Coordinator (Quality)
Miray Gönülşen	Human Resources Specialist
Nevra Aydoğan	Brand Marketing and Corp Com Manager
Özge Sekmen	Global Finance Specialist
Özgün Apaydın	Lean Manufacturing Engineer
Sancar Koçoğlu	Project Leader
Yoga Mardiansyah	Global SHE – Sustainability Manager

The names of the members are in alphabetical order.



Nevra Aydoğan



**Erhan Kop** 



Fatih Çakır



Ferhat Uzun



Cansu Bozdağ



Miray Gönülşen



Özgün Apaydın







Ece Otlu



Özge Sekmen

SUSTAINABILITY STRATEGY AND OUR CORE VALUES

Our corporate values support the foundations of our

vision and strategic initiatives. Our priority topics that

shape our sustainability strategy match perfectly with

our corporate values that we based

### SUSTAINABILITY MANAGEMENT

### INTERNAL STAKEHOLDER VIEW

75% of our employees who responded to the sustainability assessment survey think that...

KORDSA'S COMMUNICATION PLATFORMS TO FIND OUT ABOUT THE IDEAS/SUGGESTIONS OR EXPECTATIONS OF KEY STAKEHOLDERS (EXCL. EMPLOYEES) ARE ADEQUATE.

#### **OUR SUSTAINABILITY OUR VALUES OUR VALUES** TOPICS **Occupational Health** and Safety **Materials** Safety, Health Energy and Environment Water **Biodiversity Emissions** MISSION Effluents and Waste Compliance **DELIVER HIGH** Anti-Corruption VALUE ADDED **Results-Driven** REINFORCEMENT Supplier Assessments **Open-Minded** Commitment to SOLUTIONS GLOBALLY **Human Rights Global Collaboration Ethical Values Assessments Diversity and Equal** Opportunity VISION **Customer-Focused Customer Privacy** AGILE KORDSA IN HIGH **Employment** VALUE BUSINESSES **Training and Education** Continuous FOR SUSTAINABLE Improvement Economic GROWTH Performance

### **COMMUNICATION WITH OUR STAKEHOLDERS**

We define our stakeholders as people and organizations that are influenced by our activities, and at the same time, have impacts on our company to achieve its business targets. While striving for sustainable growth at Kordsa, we aim to render the benefits we create for all of our stakeholders sustainably as well.

We conducted a sustainability strategy survey during the first reporting period in 2015. Then, at one-on-one interviews with Executive Leadership Team and during the sustainability workshop held with Sustainability Task Force in 2017, we reviewed all our key stakeholders that had an intensive economic, social, and environmental interaction with our company concerning our strategic topics.

We grouped our key stakeholders by the extent they were influenced by our company's activities and their impacts on our company's efforts to achieve its business targets. We plan to review our stakeholders every two years as we review our priority topics. (GRI 102-42)

### SUSTAINABILITY MANAGEMENT







# SUSTAINABILITY COMMUNICATION WITH OUR CUSTOMERS

Starting from the first year of our sustainability reporting we engage with our customers to either receive feedback regarding Kordsa's sustainability performance or the strategic topics focused. Every year we aim to increase the number of our costomers that we engage on sustainability.

In the first year of sustainability reporting, we have interviewed two of our major customer representatives and received their feedback about our performance on sustainability. We have also asked their concerns on which topics Kordsa should focus on. Both customers brought up the issue of supplier assessments on social and environmental impacts. We took this feedback into consideration and again took actions regarding better managing this topic. The details of our actions take place under Supplier Assessments topic.

In 2017, we conducted a survey with the participation of 50% of our major customer representatives. Results showed that the top priority topics for our customers are business ethics, occupational health and safety, human rights and customer privacy. Regarding our target to be listed in the BIST Sustainability Index next year, we also included biodiversity as one of the focus areas of Kordsa this year.

### STRATEGY AND GOVERNANCE SUSTAINABILITY MANAGEMENT

### SUSTAINABILITY COMMUNICATION WITH OUR EMPLOYEES

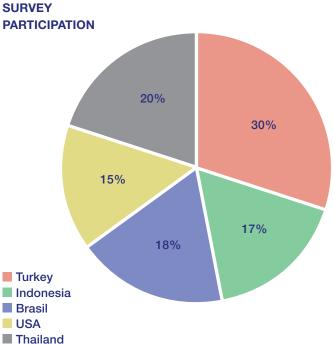
We conduct a sustainability assessment survey annually to raise their awareness of our employees on sustainability and our company's impacts. Through this survey, we collect our employees' opinions on our company's sustainability performance and we share these views in the relevant sections of our report annually. The participation level to our sustainability survey gradually increases each year since 2015. In 2017, 330 white-collar employees including engineers, specialists, supervisors, managers, directors, and top management, nearly 38% of which has been working for Kordsa for more than 15 years, participated in the survey where 2016 performance was assessed. Participants also selected the topics of their concerns and prioritized them.

The communication platforms we employ for our employees and other key stakeholders, together with their content and communication frequency, are given in the Communication Platforms With Our Stakeholders table. (GRI 102-43, GRI 102-44)

### **PRIORITY TOPICS OF OUR EMPLOYEES**

1.	Occupational Health and Safety
2.	Economic Performance
3.	Human Rights
4.	Business Ethics
5.	Customer Privacy
6.	Training and Education
7.	Employment and Labor Practices





OUR STAKEHOLDERS	COMMUNICATION PLATFORMS	OBJECTIVE/CONTENT OF COMMUNICATION	COMMUNICATION FREQUENCY
ustomers	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
	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	Continuous
		interviews in both national and international publications	
	Social media	To share news about the company, products and developments	Continuous
	E-Newsletter	To share developments about the company or collaborations	Four times a year
		exclusive to Big 6 segment	
	Trade fairs	To establish contact with existing and new customers	Several times a year
nployees	Sustainability 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
	Yammer	To enhance CEO communication and sharing developments about	Continuous
		the Kordsa with employees	
	Intouch	To enhance CEO communication	Four 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
ppliers	Face-to-face contact	To discuss business issues	At least once a month
	Trade fairs	To discuss business issues	Several times a year
	E-mails	To discuss business issues	Continuous
	Factory visits	To inspect, to discuss business issues	Several times a year
	Social media	To share news about the company, products and developments	Continuous
nareholders	Earning Calls	To announce mid-year results	Two times a year
	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
vestors	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
	Website	To announce important information	Continuous
	Public Disclosure Platform	To publish the report of the Capital Markets Board	Four times a year
	Public Disclosure Platform	To announce special situations	As needed
	Telephone/e-mails	To respond to investors' request for information about the company	Upon request from the investors
	Social media	To share news about the company, products and developments	Continuous
cal Communities	Newsletters	To announce important developments about the company through the media	Continuous
d Governments	TV programs	To announce important developments about the company undergine in our of the technology and t	Several times a year
	Website	To announce important information	Continuous
	Kordsa Magazine	To announce important developments about the company	Several times a year
	Newsletters	To share news about the company, products and developments	Continuous
oup Companies	Sabancı Holding Newsletters	To announce important information	Continuous
vernmental and	casarior riolarity remoletters	to antownoo important information	Continuous
egulatory Institutions		To announce important developments	
	Newsletters	· · · ·	Continuous
		about the company through the media	
on-Governmental Institutions			
on-Governmental Institutions ess Members ade Unions	TV programs	To announce important developments about the company	Several times a year

### MATERIAL SUSTAINABILITY TOPICS

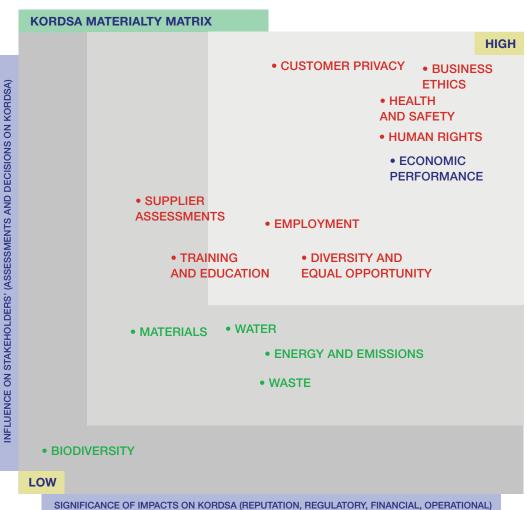
We reviewed our strategic sustainability topics with a sustainability strategy survey conducted with the participation of the Kordsa Executive Leadership Team and the Sustainability Task Force. Consequently, we conducted employee and customer engagement surveys and considered their opinions as our key stakeholders while preparing our materiality matrix.

In the matrix, topics that we place under Business Ethics are compliance and anti-corruption. Non-discrimination is disclosed under Human Rights Assessments.

Considering the BIST Sustainability Index requirements, we have added biodiversity and climate change in the evaluation process. Supplier Assessments, as a topic brought up by our major customers last year, also took its place in the matrix.

The upper right-hand part of the matrix displays topics that are of high importance for both our customers and Kordsa, and influence our company's performance directly and significantly. These topics constitute the main topics of the relevant sections of our report, and the relevant data on our company's performance are extensively covered in the report.

The main objective of creating such a matrix was to clearly identify issues important for both our company and our key stakeholders, and to develop our plans and set our targets around these topics. In the coming period, we aim to exchange ideas with a higher number of stakeholders and to further develop the topics we will focus on and our related targets.



### TOPIC BOUNDARIES AND LIMITATIONS ON REPORTING

The list of topics that we include on our materiality matrix are all relevant for all our global operations. Externally our suppliers and contractors also have impacts on these topics. Our internal reporting limitation is the emissions data which is only available for scope 1. For economic performance, we provide some figures which are not country specific but represent the company as a whole. This year we have also included our product value chains to identify the boundaries of our priority topics and presented in this report. (GRI 102-46)

#### **Sustainability Impacts TCF (Tire Cord Fabric) RAW MATERIAL** Automotive Supply Chain **CUSTOMERS** PROCUREMENT Aviation Management MANAGEMENT **Reprocessed Chips** Automotive Electronics **Sustainability Impacts** Business Ethics Economic Performance • Health and Safety • Human Rights • Training and Education PRODUCTION **Sustainability Impacts** Employment and TCF (Tire Cord Fabric) Materials Management Labor Practices • Reprocessed Chips • Energy & Emissions Customer Privacy Management Waste Management Vessels • Biodiversity TRANSPORTATION Trucks Conservation Airplanes Water Management SALES

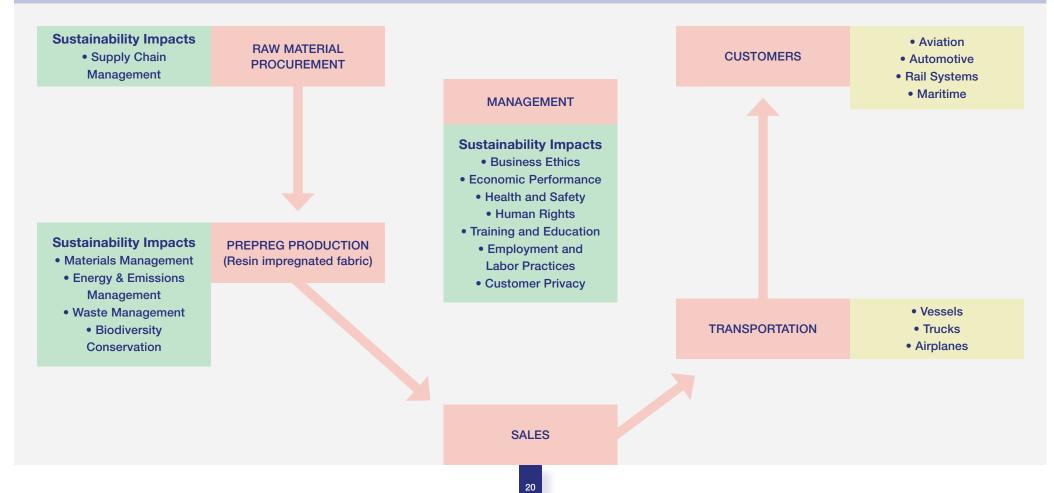
### KORDSA SUSTAINABILITY IMPACTS ALONG THE VALUE CHAIN (TIRE REINFORCEMENT)

# STRATEGY AND GOVERNANCE

# SUSTAINABILITY MANAGEMENT



### KORDSA SUSTAINABILITY IMPACTS ALONG THE VALUE CHAIN (COMPOSITES)



### WE SUPPORT UN SUSTAINABLE DEVELOPMENT GOALS!

Signing UN Global Compact in 2014, we started supporting its vision of "Sustainable and inclusive global economy" with our commitments. After the launch of Sustainable Development Goals (SDGs) in 2015 by UN, as Kordsa we aligned our material topics and related best practices with these global challenges. Our material topics are directly related to 13 of the SDG's where the rest are indirectly covered.

# SUSTAINABLE DEVELOPMENT GOALS

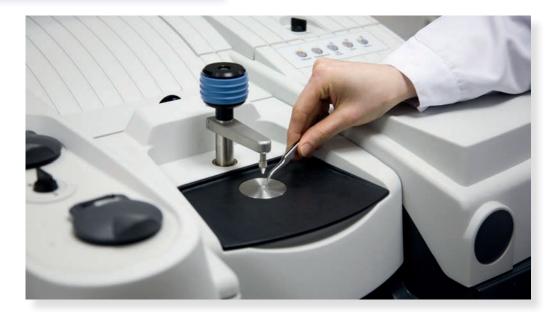
	UN 2030 SUSTAINABLE DEVELOPMENT GOALS	KORDSA'S RELATED MATERIAL TOPICS
3 AND MELLA ADMA	SDG 3: Good Health and Well-Being	Occupational Health and Safety
	SDG 4: Quality Education	Training and Education
5 titler ©	SDG 5: Gender Equality	Diversity and Equal Opportunity
6 de la compañía de l	SDG 6: Clean Water and Sanitation	Water
7 атаналана Саланалат С	SDG 7: Affordable and Clean Energy	Energy
8 millioner ann an	SDG 8: Decent Work and Economic Growth	Employment and Labor Practices
	SDG 9: Industry, Innovation and Infrastructure	R&D and Innovation
	SDG 12: Responsible Consumption and Production	Materials, Effluents and Waste, Water
13 2000	SDG 13: Climate Action	Emissions
14 Heaven	SDG 14: Life Below Water	Materials, Effluents and Waste, Water
15 mus	SDG 15: Life On Land	Materials, Biodiversity
16 HACK AND THE MADE	SDG 16: Peace, Justice and Strong Institutions	Human Rights, Anti-Corruption and Compliance
17 RETRESERS	SDG 17: Partnerships For The Goals	R&D and Innovation

# STRATEGY AND GOVERNANCE TARGETS AND COMMITMENTS

STRATEGIC TOPIC	OUR TARGETS AND COMMITMENTS	PERFORMANCE IN 2017 / WHAT IS ACHHIEVED?	TARGETS TOWARDS 2020
Economic Performance	Increase EBITDA by 20-30% and sales revenues by 25-35%	Increased sales EBITDA by 30.2% and sales revenue by 21.5%.	Continues growth
Anti-Corruption	Disseminate Anti-Corruption and Anti-Bribery Policy at our plants	Completed.	Continuous
	Maintain our performance of zero corruption cases at all locations	No cases occurred.	Continuous
Employment	Reduce the high-potential employee turnover rate in all our companies	Average turnover rate at all Kordsa operations was 2.62.	Continuous
	Monitor the suggestion systems implemented at the plants and promote it to be more active	Restructured the suggestion system and started collecting ideas under our priority sustainability topics.	Promote suggestion system to be used effectively
Occupational Health and Safety	Achieve a zero-accident rate at all our locations	Achieved 50% decrease in recordable cases at all plants.	Continuous
	Extend the Finishing Machinery Safety Project to include all plants abroad that have dipping units (Indonesia, Thailand, USA, Brazil), complete the risk analyses of these plants in 2015, and start implementations in 2016.	Finished risk analysis at all sites and mechanical closing have been installed. Turkey and Indonesia plants finished the implementations.	Implementation of machinery safety at all yarn and fabric plants globally
Training and Education	Expand the Global Mentoring Program, increase its effectiveness, and ensure its continuity	In progress	Continuous
	Improve the online platform and increase the number of KEEP training hours	In progress	Continuous
Diversity and Equal Opportunity	Internalize and implement the principles of the Equality at Work Declaration	Started implementing.	Continuous
Human Rights Assessments	Maintain our performance of zero discrimination cases at all locations	No cases occurred.	Continuous
	Prepare a new Human Rights Policy that supports our Code of Ethics and disseminate it at all locations	Completed.	Complete
Supplier Assessments	Review the current supplier assessment system, update policy and procedures considering sustainability topics	Prepared the Supplier Assessment Questionnaire.	Start social and environmental supplier assessments in 2018
	Disseminate the use of Statement on Code of Business Ethics with the contracts of suppliers that we regularly do business with	Started with Turkey.	Include all sites by 2018
Customer Privacy	Maintain our company's performance of zero complaints from customers about information security	No customer complaints occurred. Continuous	
Compliance	Maintain our performance of zero anti-compliance cases at all locations	No cases occurred.	Continuous
	Revise ethical rules and adapt them to current legislation if needed by following the latest developments in the Turkish legislation	Achieved.	Continuous
Materials Management	Monitor yarn recycle at all plants and sustain the process	Collected data from all plants in 2016.	Sustain yarn recycle rate
	Monitor fabric recycle or reused process materials from all plants	Recycle rate became 51%.	Sustain fabric recycle or reused material rate
Energy Management	Increase the scope and effectiveness of the ISO 50001 Energy Management System	Kordsa Turkey got ISO 50001 certification. All plants established energy committees and set energy targets.	Continue data collection adding Brazil and two US Plants
	Increase number of projects from all Kordsa plants to reduce energy consumption	Received over 1,000 improvement project ideas from all plants under environment and efficiency categories.	Continuous
Emissions Management	Start data collection from all plants for CO <sub>2</sub> calculation and continue CDP Reporting (Scope 1,2 and 3)	Calculated Scope 1 of all plants in 2017.	Collect Scope 1, 2 and 3 data of all plants
	Start CO <sub>2</sub> verifications	Turkey plant verification reports are prepared annually based on National Regulation.	Complete all plants' verifications in 2018
	Continuously emit an emission that is under the national regulation limit	Sustained all plants' emission values below each local regulations' limits .	Continuous
Water Management	Monitor water usage and discharge of all global plants	In progress	Start Water Management Program in 2018 and disseminate at all plants by 2019
Waste Management	Comply and obtain ISO 14001 directive and local legislation	Continued waste data collection from all plants.	Plan ISO 14001 certification of all sites in 2018
Biodiversity	Complete ISO 14001 gap analysis in 2016 and certification within the following years	In 2017, Turkey and Indonesia plants received the certification.	Plan certification of Thailand, Brazil and two US plants in the following years

# STRATEGY AND GOVERNANCE SUSTAINABILITY PROJECTS OF 2017

As a result of disseminated approach of TPM at Kordsa, our employees, through different platforms, share ideas and suggestions to eliminate occupational accidents, quality impediments and to create permanent solutions to these problems. Ideas designed to create tangible gains are awarded through our Global Recognition and Awarding system All Stars. Among the 27 projects awarded in 2017, we share the objectives and gains of the 13 projects, which serve directly to our sustainability targets.



SUSTAINABILITY CATEGORY	PROJECT NAME	OBJECTIVE	RESULTS AND GAINS
All in One	An Alternative Approach to RF-Free Dipping Standardization	Replacement of resorcinol-formaldehyde-latex (RFL) technology with an environment friendly one and make this new technology accessible to everyone via "free licensing" concept	<ul> <li>Collaborated with Continental, one of our largest customers</li> <li>Created value for the company with an alternative business model</li> <li>Reinforced our "green company" image</li> <li>Gained opportunity to increase market share in tire reinforcement</li> <li>Replaced two toxic chemicals with more environmentally friendly materials</li> <li>Contributed to sectoral development</li> </ul>
Economic Performance	TPM Portal	Establishment of a database of improvement projects completed at all sites	<ul> <li>Collected best practices on safety, efficiency, quality and maintenance</li> <li>Provided accessibility in local languages for benchmark purposes</li> <li>Created a Kaizen library to save forms and documents and share globally</li> <li>Captured intellectual property that will increase company value</li> </ul>
Economic Performance	Thai Indo Kordsa Twisting Mini PM (Pitstop in Twisting)	Reduction of preventive maintenance (PM) time to produce more TCF in less time and without impacting the machines	<ul> <li>Reduced PM duration by 30%</li> <li>Increased production time by 1,024 hours/year</li> <li>Increased production by 67,000 kg/year</li> <li>Achieved average profit margin of 0.755 USD/kg</li> <li>Achieved production efficiency by 92% and saved 50,580 USD/year</li> <li>Reduced the waste of cleaning due to shortened cleaning duration</li> </ul>
Economic Performance	Thai Indo Kordsa ERP Project	Integration of latest improvements and development features to ERP system	<ul> <li>Achieved automation of numerous manual processes and reports</li> <li>Gained continuous improvement opportunities to develop new features</li> <li>Expected improvements for next year are; Cost reduction, improvements in productivity, quality, resource management and customer services</li> </ul>

# STRATEGY AND GOVERNANCE SUSTAINABILITY PROJECTS OF 2017



SUSTAINABILITY CATEGORY	PROJECT NAME	OBJECTIVE	RESULTS AND GAINS
Occupational Health and Safety	Group Japanese Job	Prevention of sewing machine failures as a result of needle breakdowns	<ul> <li>Reduced the risk of harming employees by the broken needles</li> <li>Avoided the risk of accidents during maintenance of the machine (removal of jammed fabric, replacement of needles)</li> <li>Achieved manufacturing efficiency</li> <li>Reduced 300 min/month failure period to zero</li> <li>Eliminated 1,750 kg/month product waste and USD 6,000 loss</li> </ul>
Occupational Health and Safety	Group Spiders	Elimination the ergonomic challenges of cartridge change and achievement in time efficiency	<ul> <li>Formed a magnet stick from waste materials</li> <li>Achieved to do cartridge change without removing spindle stick</li> <li>Improved work ergonomics by eliminating unnecessary actions</li> <li>Reduced cost of recycling</li> </ul>
Achieving Long-Term Employment	Invista Site Project	Integration of new employees and optimization of costs and services after purchase of Chattanooga site from Invista Company.	<ul> <li>Created 40 jobs and 15 contractor positions</li> <li>Increased the loyalty of the employees and the awareness of Kordsa trademark</li> <li>Completed a profitable transaction of purchase in terms of equipment and property value</li> <li>Gained more control on the environmental wastes and emissions</li> <li>Reduced the waste water discharge by 5 million gallons per year</li> <li>Created a cost saving of USD 473,000</li> </ul>
Achieving Long-Term Employment	Kordsa Stars Turkey Reward & Recognitions System	Establishment of a Reward & Recognitions System which provides everybody to make instant recognition to anybody and where flexible benefits are merged.	<ul> <li>Achieved to provide reward and recognition opportunity to all organization transparently</li> <li>Increased engagement of all white- and blue-collar employees</li> <li>Provided more ownership opportunity to the managers to work closer with their team and appreciate their work</li> <li>Provided departmental award budget to be distributed by the managers to their teams through instant rewarding</li> <li>Created no paper waste thanks to the online Reward and Recognition system</li> </ul>
Training and Education	Kaizens of Finance	Application of TPM and Maki Gami methodologies to the finance processes.	<ul> <li>Created awareness among employees</li> <li>Decreased overtime periods from 200 hours to 100 hours</li> <li>Achieved %30 of our target</li> <li>Established simpler processes</li> <li>Minimized the carbon footprint of our department</li> </ul>

# STRATEGY AND GOVERNANCE SUSTAINABILITY PROJECTS OF 2017



SUSTAINABILITY CATEGORY	PROJECT NAME	OBJECTIVE	RESULTS AND GAINS
Energy Management	Total elimination of the use of steam at Kordsa Brazil	Replacement of steam used at drying and spinning processes with electric heaters	<ul> <li>Achieved cost reduction of US\$ 686.784,66 / year</li> <li>Reduction of CO2 emission of 2,590 ton/year</li> <li>Reduction of 9,400 m<sup>3</sup>/year of water</li> </ul>
Water Management	Wastewater Reduction	Reduction of wastewater flow to the sewer and achieving cost efficiency.	<ul> <li>Reduced non-contact cooling water going to the sewer</li> <li>Water discharge was decreased by over 5 million gallons per month</li> <li>Reduced wastewater disposal costs; estimated annual savings of \$ 473,000</li> <li>Reduced environmental waste</li> <li>Increased energy utilization from the returned high-pressure steam condensate to the boilers for reuse</li> </ul>
Waste Management	Quality 4,0	Prevention of bobbin quality problems in line-3	<ul> <li>Increased customer satisfaction</li> <li>Decreased manpower</li> <li>Increased our operators' motivation and productivity</li> <li>Expected increase in 1st grade production</li> <li>Expected decrease in waste bobbins</li> </ul>
Materials Management	Dip Preparation Automation Phase-3	Improvement of dip preparation process from manual operation to systematic automation	<ul> <li>Increased customer satisfaction (customer request)</li> <li>Achieved more accurate and reliable processes</li> <li>Reduced workload of operators</li> <li>Reduced environmental spillage</li> <li>Reduced usage of raw materials</li> </ul>



Kordsa, along with the 43 companies with the highest corporate sustainability performance, entered BIST Sustainability Index.

Kordsa was recognized with the Grand Award in 20th Quality Circles Sharing Conference. (KalDer, The Quality Association)

Kordsa was granted the third-place award for its Innovation Strategy at the Inovalig Awards of the Turkish Innovation and Entrepreneurship Week. (Turkish Exporters Assembly)

Kordsa was granted Best R&D Center Award in textile sector sixth time in a row at the 6th Private Sector R&D and Design Centers Summit. (Ministry of Science, Industry and Technology)



Kordsa was granted the Jury's Special Award in the "Project Contest on Energy Efficiency in Industry". (Ministry of Energy and Natural Resources)

Kordsa was granted the "TİKA -Turkey's Most Ethical Companies" Award for the fourth time. (EDMER – Association of Ethical Values Center)

Kordsa scored 80.5 points in IFT Index, which indicates employee happiness at work, and won "The Best Newcomer" special recognition award. (IFT Index Brazil)

Kordsa is listed at the 3<sup>rd</sup> place among the **Best Employers** in Bahia, Brazil. (Great Place to Work Institute)



Kordsa was voted No.1 in Textile Sector among the most successful "Global 100 Company" to emerge from Turkey out to worldwide operations. (Platin Magazine)

Kordsa received the "Most Powerful Companies (IMPCA) 2017" award, which is given to the last three years' best performing companies listed in the Indonesian Stock Exchange. (Warta Ekonomi)



# ECONOMIC PERFORMANCE



## ECONOMIC PERFORMANCE CONTRIBUTIONS TO THE ECONOMY

**INTERNAL STAKEHOLDER VIEW** 

Our investments toward a sustainable growth at Kordsa continued in 2017, too. As we put our signature under important investments in all our lines of business, we continued our improvement works in our TPM practices with the management of our social and environmental impact in mind at all times. 169 of 642 patent applications we put in as part of our R&D work were officially registered. We dedicated TRY 27.5 million budget to the ongoing projects in 2017, and our sales revenues from our innovative products reached to USD 45 million.

### ECONOMIC VALUE DISTRIBUTED

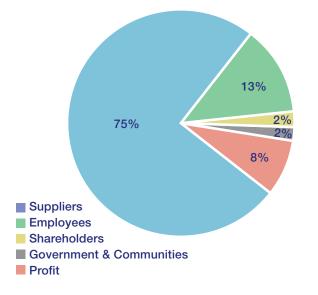
### CONTRIBUTIONS TO THE ECONOMY

At Kordsa we increased our profitability in our core business by %15.6 in 2017 to ensure sustainable growth. On one hand, we focused on efficiency in production and competitiveness in cost, and on the other, we improved our economic performance with our differentiation strategy. We continued to offer value to our stakeholders both with the economy we created and our investments in 2017.

As Kordsa, following our 2016 investment in Composite Technologies Center of Excellence, which was the first industry-university collaboration model to be implemented in Turkey, we continued to grow in the field of composite technologies in 2017 with two major acquisitions we made in the US. As we bought out Fabric Development Inc. (FDI) and Textile Products Inc., (TPI), which are suppliers of advanced composite materials to the commercial aviation industry we also continued our investments in the fields of tire and building reinforcement.

In our Izmit factory, we had an additional production line built to increase the polyester tread manufacturing capacity by 7 thousand tons, while giving a start to another "polypropylene monofilament" production line in the building reinforcement side.

Kordsa's subsidiary in the US, Kordsa Incorporated, acquired the Chattanooga facility of the Luxembourgbased INVISTA S.à r.l. Company in the US state of Tennessee.



### THE VALUE WE DISTRIBUTE TO OUR STAKEHOLDERS

In direct proportion to the increase in profits in 2016, our community investments rose by 45%. We donated TRY 12.37 million to educational institutions like Sabancı University and selected educational institutions in need, as well as NGO's like TEV (The Turkish Foundation for Education). Just like the previous years, our suppliers received the highest share of the economic value we distributed to our stakeholders in 2017 by 75% and employees followed by 13%. We received around TRY 23.7 million government tax discounts and incentives in 2017. 80% of our employees who responded to the sustainability assessment survey think that...

### KORDSA CREATES SIGNIFICANT ECONOMIC VALUE FOR ITS KEY STAKEHOLDERS.



Polyester İplik Üretim Hattı Genişletme ve Jipropilen Monofilament Üretim Hattı Temel Atma Tö



### ECONOMIC PERFORMANCE

## CONTRIBUTIONS TO THE ECONOMY

#### TOTAL PRODUCTIVE MAINTENANCE (TPM) INTEGRATION

TPM Project 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 generated both in 2016 and in 2017.

TPM Integration is designed to reach zero-accident target, to preserve quality problems and to identify root causes of recurring failures and develop stable solutions to eliminate them. It started at Kordsa Turkey facilities under the guidance of Tire Cord Fabric Production and Lean Management Department and turned to be a habit of doing business for all employees.

With TPM, we aimed to improve our staff's knowledge, skills and competencies in monitoring, analyzing and taking timely action about their responsibilities; elevate the level of employee engagement at the factory in order to reach zero-failure target that will boost efficiency and thus sustain customer satisfaction.

Including methods trainings and consultancy services, ranging according to their size of site, we invest between USD 70 thousand to USD 130 thousand annually for each plant that we implement TPM.

Our TPM integration targets, which are reflected to our individual targets cascaded towards supervisor level and in parallel to our performance targets coming from our strategic plans, started to create positive impacts in reaching our corporate goals.

During 2017 we monitored the positive impacts of TPM activities on our occupational health and safety, customer satisfaction about quality, overall equipment efficiency (OEE) and, productivity and cost margin targets.

### **Economic Results and Gains**

We worked on preventing labor and machine loss, reducing costs due to high production based on increase in machine efficiency, increasing employee productivity as a result of effective use of labor time.

### **Social Results and Gains**

We improved personal skills and competencies. The positive working environment created by zero-accident and zero quality defect targets, supported our company to be a preferred place to work and to increase communication among employees. As a result, similar perceptions strengthened team spirit and enhanced sharing and owning responsibilities among employees.

#### **Environmental Results and Gains**

We continued to manage waste effectively, increased perception of employees on waste, increased environmental sensitivity due to motivation created by contributing to environmental protection.

### **Corporate Results and Gains**

Perceiving and owning corporate goals at the operator level contributed to a stronger corporate image and corporate culture.

#### Activities in 2017

In addition to the Autonomous Maintenance, Planned Maintenance and Focused Improvement activities depending on the deployment plans at the sites, we started the Office TPM activities in order to improve on our support departments processes such as Finance, Sales, Marketing, HR, Information Systems and Sales Operations.

In our mother plant, Kordsa Turkey, The Reinforcement Center was opened, and the trainings commenced,

which enabled all our employees to learn the theories and the practicalities of 5S and Autonomous Maintenance approach. Throughout 2017, 840 people received 9,200 man/hour training. Our employees who improved their TPM activities with Reinforcement Center trainings prepared 886 Kaizen and 1,548 single point classes in 2017.

The TPM Sharing Portal went online, through which we were able to share our entire improvement works globally and open Kaizen, Kordsa Improvement Groups Projects and single point classes to access. The All Stars Awards, where the recognition and rewarding is done globally, had TPM as the new category, and the best practices were awarded.

### In field specific:

Kordsa Turkey continued to work on Autonomous Maintenance, Planned Maintenance and Focused Improvement and also created 2018 plans to start working on Safety, Health and Environment, and Education & Training pillars.

Kordsa Indonesia continued to work on Autonomous Maintenance, Planned Maintenance and Focused Improvement. The Office began its TPM activities and created 2018 plans to start working on Safety, Health and Environment, and Education & Training pillars. Kordsa Thailand continued to work on Autonomous Maintenance and Planned Maintenance Pillars. Pilot Focused Improvement scheme commenced. Kordsa Brazil continued to work on Autonomous Maintenance and Planned Maintenance Pillars. Kordsa USA (LH&CH) Laurel Hill focused on 5S and Autonomous Maintenance, and Chattanooga Plant focused on 5S activities.

### **OUR FUTURE PLANS**

The trainings where the pillars of the TPM are explained in detail will continue in order to deepen the awareness and increase the leadership across all of our employees in our facilities. All TPM pillars will be made active further where the committee leaders will play influential roles. TPM Excellence Award will be included in the application process and the resources for the future Kordsa TPM Activity Book will continue to be collected.

## ECONOMIC PERFORMANCE R&D AND INNOVATION

### **R&D AND INNOVATION**

In product and service differentiation R&D and innovation, which is an integral part of our corporate culture, is located at the foundation of our business strategy, together with operational excellence. As our technology function at our R&D centers in Kocaeli and Istanbul, enables more effective conditions for production through its research and development activities on materials, processes and equipment, we achieve to be the market and technology leader, and offer our customers more competitive and innovative products.

FACTS AND FIGURES OF R&D
69 Approved R&D Projects (Ministry of Science, Industry and Technology)
670 Total Patent Applications 153 Patents Granted
81 Personnel (R&D Center) 21 Personnel (Composite Technologies Center of Excellence)
USD <b>45</b> Million (New Product Sales)
TL 75 Million

(R&D Expenses including Capex and Opex)



As Kordsa we cooperate with institutions such as Tübitak MAM (Marmara Research Center), Sabancı University, Boğaziçi University, Koç University, Bilkent University, University of Akron, the Tokyo Institute of Technology and Aachen University. In subject matters that come up in our projects but are outside the scope of our own area of expertise, we contact universities, and work together with relevant experts and competent academics. All projects are under the protection of confidentiality agreements; and we are scrupulous about the ethical components as well as intellectual property issues.

Our goal in the projects we work on at the R&D Center is to develop new products and technologies that increase energy efficiency and reduce carbon dioxide emissions, with a focus on the environmental impacts.

At the Composite Technologies Center of Excellence that we established in cooperation with Sabancı University in 2014, we will be active in postgraduate education, basic and implementer research, product development, production, incubation services and commercialization activities on composite material technologies.

We also continue branding processes of new products. In 2015, we added The Reinforcer brand to Twixtra, Monolyx, Capmax, Hartech and Kratos brands we created since the establishment of our R&D Center. In 2016, we registered our green cord's industrial design. We also established a concrete laboratory to speed of new product development works of Construction Reinforcement Business Unit. At our Composite Technologies Business Unit we achieved to produce prepregs by weaving carbon fiber materials.





### INNOVATIVE PRODUCTS OF KORDSA



Capmax® which is developed at Kordsa facilities in 2014, is a ready to use textile reinforcement product that can be directly applied at the tire building machinery without the need of coating rubber. 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, where cap-ply is utilized.



Kordsa launched Twixtra® that can be acknowledged as the world's lightest hybrid cord product, in 2013. Products with combination of different kinds of fibers in one cord are called hybrid cords. 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, it allows the tire to be produced with less raw materials. Lighter tires mean better fuel consumption. Positive sustainability impacts created by these products are;

#### Economic

- New style ready to use product
- Efficient and faster production process
- · Improved total cost of use

### Social

- More safety for all rubber goods
- · Comfortable ride in higher speeds

### Environmental

- · Lower fabric usage so less weight of goods
- Higher endurance and so less pollution

### Corporate

- High value-added product in portfolio
- · Leverage for know-how
- Prestige

PROJECT NAME LOCATION	SUPPORTING DEPARTMENTS	REASONS BEHIND	ECONOMIC RESULTS AND GAINS	SOCIAL RESULTS AND GAINS	ENVIRONMENTAL RESULTS AND GAINS
Developing quick cure compression moldable prepreg hot melt epoxy resin composition for automotive industry	Technology, Quality, Market Development, Supply Chain Operations, Finance, Sales and Marketing, Production	automotive composites market bacuse of the need	<ul> <li>Both products successfully passed prototype production phase and commercial grade</li> <li>One product is approved by two Turkish and two Italian firms.</li> <li>For 2017, 20% of all prepreg material sales of Kordsa Composite Bussiness Unit is of one of these products.</li> </ul>	All tests in this project, except for the xenon-arc weathering environmental durability tests, were subcontracted to the Integrated Manufacturing Technologies Research and Application Center (TÜMER) Laboratories at Sabanci University, a subsidiary of Composite Technologies Center of Excellence. Using the university laboratories for the test resulted in an increase in academic personnel employment. Also, thanks to the project, the employment at Kordsa increased in parallel to the company's growing share	Thanks to the lower energy consumption in the manufacturing of these two new products developed in this project, the process is much more economical in comparison to the previous autoclave method, and its environmental impact is much lower.

### COMPOSITE TECHNOLOGIES CENTER OF EXCELLENCE

Composite Technologies Center of Excellence in cooperation with Sabancı University, serves as one of the best test laboratories and one of the top producers of high performance composite material as intermediate product since 2016. With the investments in the composites market, we aim to reach aviation, automotive, maritime and rail systems sectors. Established to produce the technology of the future, Composite Technologies Center of Excellence, received LEED Gold Certifcate in 2016 as a result of its qualities of being an environment friendly and sustainable building using the energy and water resources with maximum efficiency.

### **Targeted Economic Gains**

We initiated projects geared towards minimizing Turkey's dependence on foreign product development and manufacturing capabilities in strategic areas, in the short- and medium-term and we continue these project on the basis of our targets.

### **Targeted Social Gains**

As a first in Turkey, we host such an industry-university collaboration structure, which covers all phases from R&D to production of high technology high performance composite products.





We would like this platform to be the technology base of Turkey and to make a significant contribution to solve the qualified human resources shortage in this field.

### **Targeted Environmental Gains**

Composite material enables vehicles to be more durable and lighter creating energy efficiency. Our priority at the Composite Technologies Center of Excellence is to develop environment-friendly technologies.

### **Targeted Corporate Gains**

We aim to enter the composites sector as a manufacturer of intermediate products, to prepare for future growth options, and to position **Kordsa** as the technology and innovation leader also in this market.

### KORDSA SUPPORTS ENGINEERING CLUBS AT UNIVERSITIES!

As Kordsa, we support projects relevant to our business lines in order to enhance communication between universities and industry and contribute to the development of engineering and material technologies. We sponsor Yıldız Technical University MAKTEK Student Club's Formula Student project and Wind Power Club's wind car project Bora and also Kocaeli University Turkish Mechatronics Team via our Composite Reinforcement Business Line leadership.

Formula Student is regarded as the world's biggest engineering competition among university students where vehicles designed solely by students are evaluated on categories such as acceleration, cost, fuel efficiency, and business plan. The goal of the Formula Student project is to design the vehicle so that the vehicle weight will be decreased gradually while paying attention to cost, performance and fuel efficiency. YTU Racing Team, with its fourth vehicle participated in the Formula Student Competition in 2017.

Racing Aeolus, which we sponsored the participation of Bora vehicle is one of the world's biggest sustainability themed competitions. The goal of the Bora project is to mobilize the vehicle via mechanical transmission using wind power the most efficient way possible. With Kordsa's Platinum Sponsorship and composites materials support, Kocaeli University Turkish Mechatronics Team won TUBITAK's (The Scientific and Technological Research Council of Turkey) Efficiency Challenge Electric Vehicle Competition. The team which produced a single-engine and 430 kilograms weighing electric vehicle in the previous years, achieved to decrease the weight of the new dualengine vehicle by 45% to 240 kilograms, using Kordsa's fiber materials.

As Kordsa, we supply carbon fabric and prepreg material besides providing technical consultancy in composite part designs, for all projects. We plan to continue supporting these projects and supplying materials.

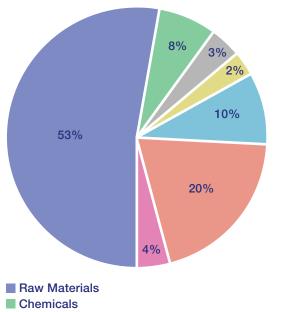
Targeted Social Gains: Enhance communication with universities and student groups,

Targeted Environmental Gains: Achieve fuel efficiency in Formula Student project; draw attention to wind power (clean energy) resources in Bora project, Targeted Corporate Gains: Increase knowledge accumulation and awareness on material technologies in Turkey.



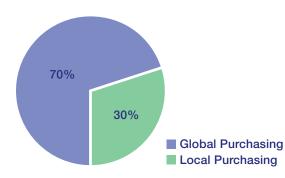
### **INTERNAL STAKEHOLDER VIEW**

#### **BREAKDOWN OF PURCHASING EXPENDITURES**



- Materials
- Packaging
- Energy
- Other Products & Services
- Management Expenditures

### SHARES OF PURCHASING FUNCTIONS



### **PROCUREMENT AND SUPPLIERS**

The global purchasing function, located at our headquarters in Istanbul, is responsible for the procurement of the raw materials used in at least 2 of the 8 plants in 5 countries and/or whose supply is considered critical, in addition to capex and service procurements above a specific budget, as well as the service procurements of a specified budget for our headquarters.

Local purchasing departments are responsible for the supply and follow up of all services and raw materials other than the above-mentioned 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 import ratio of Kordsa Turkey is 56%.

In 2016, within the framework of spare parts category project overseen by Global Purchasing, we targeted total cost reduction as a result of consolidation of spare parts at all plants, local purchasing of items with high budget allocation, resource optimization and deployment of experience throughout the organization. Concurrently, we carry out procurement from the local suppliers for the project of acquiring equipment to improve production quality.

As Kordsa produces nylon and polyester yarns, cord fabric, single end cord, concrete reinforcement fiber and composite, our main procurement items consist of raw materials and energy. **79%** of our employees who responded to the sustainability assessment survey think that...

KORDSA'S POLICIES, TRAININGS AND AUDITS ON HUMAN RIGHTS CONCERNING ITS SUPPLIERS'S OPERATIONS ARE ADEQUATE.

### SUPPLIER ASSESSMENTS

As Kordsa we require our suppliers and business partners to operate in accordance with the principles in the Statement on Code of Business Ethics prepared based on Kordsa Ethics Code. This code outlines our company's expectations for the undersigned conduct regarding labor and human rights, health and safety, environmental protection, ethics, and management practices.

Till the end of 2017, our assessments included availability of OHSAS 18001 occupational health and safety management systems certification and ISO 14001 environmental management system certification at our suppliers.

Starting from 2018, we will to include the implementation of a more comprehensive sustainability impact assessment in addition to our current processes. The sustainability scores of suppliers will directly impact on the overall assessment system.

In 2017, as a result of our assessments, six suppliers fell in 'need to improve' class and received corrective action requests. Our Global and Site Purchasing Teams decided and planned to audit two of these suppliers in 2018.

Detailed information on Kordsa Supplier Assessments http://www.kordsa.com/Supplier-Assessments. asp?g=1&d=en

### ECONOMIC PERFORMANCE

### CUSTOMER PRIVACY

### **CUSTOMER PRIVACY**

As one of our values that support our strategic initiatives, being 'customer- focused' includes not only offering innovative, accurate and tailor-made solutions to our customers and also protecting the privacy of these solutions. In that context, we ensure the privacy of our customers, and keep an equal distance to all of them and strive for a "zero complaints" target in order to make sure they are satisfied.

At Kordsa, we manufacture tailor-made products for our customers with the properties they specify because, due to the nature of the tire industry, customer requirements vary according to their own production know-how and technology. As our main customers are competitors in the tire industry, it is critical that the production - product standards and technical specifications our customers require are kept confidential. This is safeguarded with both the confidentiality agreement we sign with our customers, and the fact that the security of this category of information falls under the responsibility of the whole senior management team and all staff in contact with customers. Rules concerning the protection of customer privacy are included in the code of business ethics signed by all Kordsa employees.

Feedback on customer privacy is elicited from our customers through satisfaction surveys conducted on a regular basis in writing or in face-to-face settings, and the results are reviewed and evaluated by the senior management as well. In addition to that, customer privacy is also examined in customer audits (external audits) and quality audits (internal audits), and practices are checked to meet customer expectations.

Complaints concerning any violations of customer privacy and loss of customer data are handled through the customer complaints management system. Our customers' complaints decreased by 26% from 2015 to 2016 and 38% from 2016 to 2017. We have not received any feedback regarding failure on maintaining customer privacy during the reporting period.

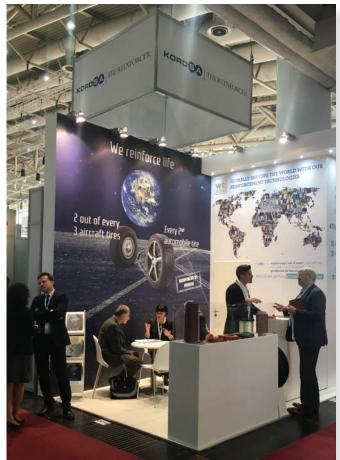


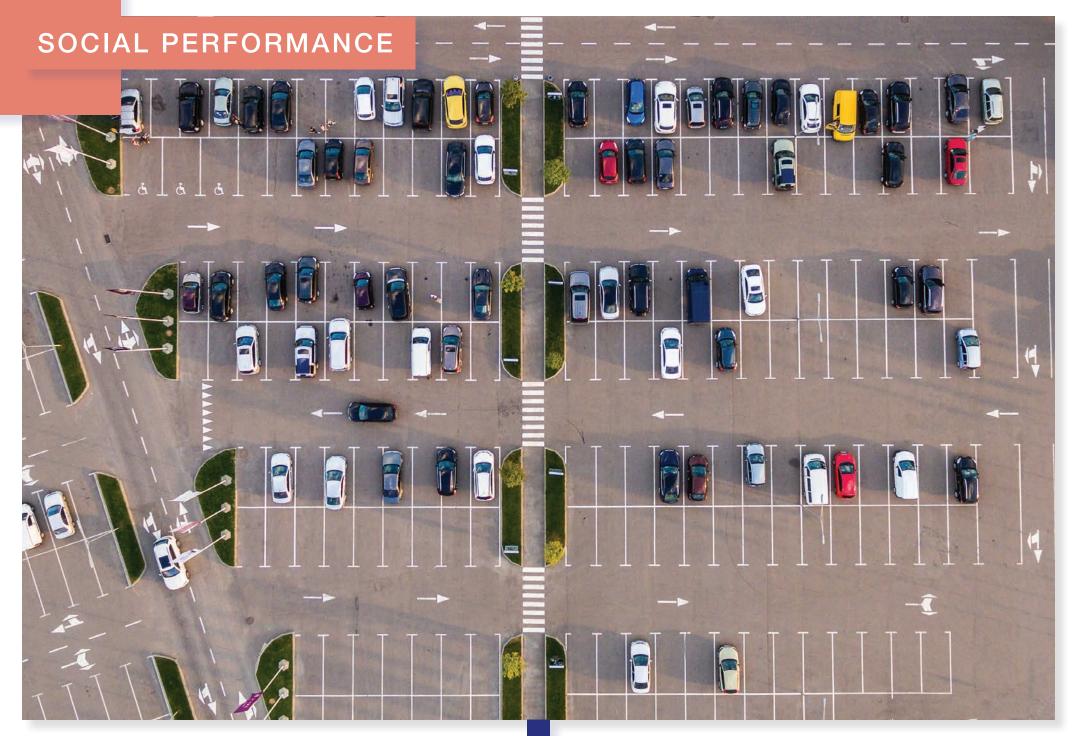


### **INTERNAL STAKEHOLDER VIEW**

85% of our employees who responded to the sustainability assessment survey think that...

KORDSA'S PRACTICES, AUDITS AS WELL AS EMPLOYEE AWARENESS-RAISING ACTIVITIES TO ENSURE AND PROTECT CUSTOMER PRIVACY ARE ADEQUATE.





### SOCIAL PERFORMANCE EMPLOYMENT

### **INTERNAL STAKEHOLDER VIEW**

At Kordsa our priority social sustainability topics are to provide safe and healthy work environment for all our employees and to protect all their rights both as humans and as employees. Diversity in human resources and sensitivity on human rights make up the foundation of our strong corporate culture. We manage our human resources of 3,874 including subcontractors in five countries, with practices based on our global sustainability strategy.

### **EMPLOYMENT**

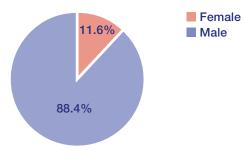
We see our human resources as the most valuable capital of Kordsa. From recruitment to retirement our priorities are to secure their health and safety, to enhance personal and occupational development and to provide them with a pleasant work environment where their employee and human rights are fully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

We monitor our employee satisfaction through employee engagament surveys, roundtable meetings with the CEO and ELT where they listen to employees' opinions and receive their feedback and also with white-collar / blue-collar interaction meetings. All Kordsa employees are subject to regular performance and career development evaluations.

We provide overseas assignments to ensure the personal development of employees, defined as 'talents', and to develop a common culture across all Kordsa plants. There are 12 ex-pat employees working on long term assignments at Kordsa's plants overseas where three of them are assigned within 2017. We provide health services, health insurances and retirement plans for all our full time employees.

The average employee tenure across Kordsa plants is 11.2 years. As of 2017, the longest period is 14 years in Indonesia. Our employee turnover rate was 3.8% in 2017. Number of employees increased by 2% in 2017 where the rate of all employees aged 30 and below is increased by 6%. During 2016-2017 period, eight female and 68 male employees used their maternity leave rights. Except one woman employee, all of them have returned to work and provided services for at least another 12 months. Detailed data on employee turnover for all our plants can be found in the social performance tables.

### **EMPLOYEES BY GENDER**

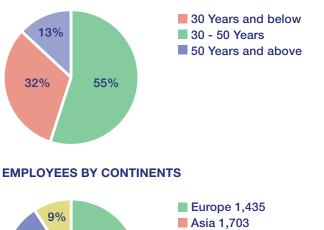


### **EMPLOYEES BY AGE GROUP**

37%

10%

44%

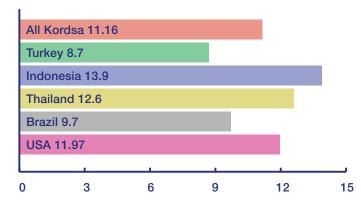


### South America 382 North America 354

# 83% 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.

### **AVERAGE LENGTH OF SERVICE (Years)**



	EVENT	TARGET GROUP	DURATION	PURPOSE	PLACE	PARTICIPATION
Haydi Yonetin & Konspagenz Toplantısına!!	Chat with The Executive Board	Senior Engineers	1,5 hours	To strengthen the communication between the Executive board and the employees.	Kordsa Reinforcement Center	5 Executive Board Members (COO & HR) and 15 employees
REINforest Base field Here is die	Happy Hour at ReinForest Vitamin Bar	All white collar employees	1 hour	To enable the employees, to get together and socialize	Turkey Plant Fabric Lobby	An average target of 60% attendance, 140 employees
KEEP CALM GONKO BAZEN OLMAZI	The Newcomers' Breakfast SOMETIMES IT DOESN'T HAPPEN!	Primarily with newcomers and later with the white collar employees	1,5 hours	To learn from our failures with our COO and the newcomers. Our first guest has been Murat Arcan.	Kentsa/VIP Lounge	12-15 employees

#### **REINFOREST OF KORDSA**

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, and 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.

We began to observe the positive outcomes of these practices by our biennial employee satisfaction survey we executed in 2016 where engagement ratio in 2014 raised from 44% to 62% in 2016.

\*Rainforests regulate the world's climate by drawing water from the forest floor and releasing it back in to the atmosphere in the form of mists and clouds and preventing droughts, which drive many other social and environmental problems. Rainforest trees also absorb the carbon dioxide that we exhale, and provide the oxygen we need to breathe.



#### **DIVERSITY AND EQUAL OPPORTUNITY**

At Kordsa, we mainstream equality from recruitment to retirement providing equal work environment for men and women. We support our approach complying with the principles of international initiatives. In the previous years we signed Equality at Work Declaration and we started supporting United Nations Women's Empowerment Principles.

Both of these platforms we support work to fight against gender inequalities, encourage women's participation in business life, empower women in decision-making mechanisms and ensure that women enjoy opportunities and resources equally.

Besides the fair working environment for hiring, working, and career planning for women, we also offer private health insurance that covers childbirth, and lactation rooms for their convenience.



#### WOMEN'S CO. (EQUALITY AT WORK PROJECT)

In 2016, our Human Resources Department launched Women's Co. Project for women employees at Kordsa plants across the globe. The primary concern of the project is to raise awareness and consciousness among employees, starting from the top management, regarding gender equality. Our objective is to design a systematic approach in equality at work and integrate all our efforts under this framework.

10 Kordsa employees are actively involved in the project in which we try to increase the number of women employees where the ratio is low, and empower them to become more competent in both their work and private lives.

The actions we took to incorporate these practices in our processes are; identification of local and global targets, detailed analysis of women-men employees, observation of women's expectations through surveys and their satisfaction level regarding the current situation, and designing development programs in line with the survey results. The objectives of the project that cover numerous cultures in four continents are valid for the next five years.

#### **Targeted Social Gains**

Empower women employees to become more competent in their work and private lives.

Targeted Economic Gains Increase women employment.

#### **Targeted Corporate Gains**

Create opportunities for women employees to be more effective in decision making mechanisms that will lead us to reach our corporate objectives. 73% of our employees who responded to the sustainability assessment survey think that...

KORDSA'S RECRUITMENT, PLACEMENT, AND REMUNERATION PRACTICES TO GUARANTEE EMPLOYEE DIVERSITY AND GENDER EQUALITY ARE ADEQUATE.





### SOCIAL PERFORMANCE HUMAN RIGHTS ASSESSMENTS

#### INTERNAL STAKEHOLDER VIEW

73% of our employees who responded to the sustainability assessment survey think that...

KORDSA'S RECRUITMENT, PLACEMENT, AND REMUNERATION PRACTICES TO GUARANTEE EMPLOYEE DIVERSITY AND GENDER EQUALITY ARE ADEQUATE.

#### HUMAN RIGHTS ASSESSMENTS

At Kordsa, our approach towards our people is honest and fair. We commit to a non-discriminative working environment for all, making sure our people enjoy their employee rights fully and properly.

Kordsa Code of Business Ethics is our company's guiding policy for human and employment rights. The policy is valid for all Kordsa locations, companies and suppliers. Additionally, Kordsa's employment and labor practices are in compliance with all applicable laws and regulations in countries we operate.

Like all our employees, our security staff is also trained on code of ethics including our human rights policies upon recruitment. Human rights risks and complaints in the company are audited both internally and externally by third parties. In line with our Code of Business Ethics and company policies, forced or involuntary labor and child labor are strictly prohibited across all Kordsa locations.

Employees who feel or suspect a violation of our Fair Working Environment Policy, which is a part of our Global Code of Ethics, must notify their line managers, other managers, the Local Code of Ethics Consultant, the Global Code of Ethics Consultant or the Ethics Committee. We have not received any complaints regarding human rights violations or discriminitve practices from our employees at any of our locations in 2017.

The total number of employees under any type of collective agreement in Turkey, in Indonesia, and in Brazil is 1,876 with a ratio of %48. Our employees in USA, Thailand and China are not unionized. Kordsa supports freedom of association and there has been no incidence of violation for freedom of association in 2017. Our activities do not bear any apparent risk concerning these issues. (GRI 102-41)





## SOCIAL PERFORMANCE TRAINING AND EDUCATION

#### INTERNAL STAKEHOLDER VIEW

#### **TRAINING AND EDUCATION**

Kordsa Human Resources Department uses many different sources and 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 across all plants of our company.

We use performance and competency evaluation results, employee development and career plans, and similar resources to identify employees' training needs and to devise training plans. We always consider company needs and legal requirements besides employees' individual requests.

Among the tools and platforms, we use as feedback to improve our training and development processes are the employee engagement survey, training assessment results, post-training development evaluations, trainer feedback, and performance evaluations. The total hours in training reached 195,597 hours in the reporting period. The majority of training was career development with 67%. Detailed information about training can be found in the social performance tables.

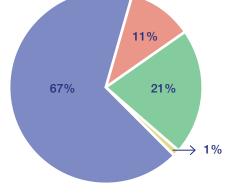
#### TALENT MANAGEMENT AT KORDSA

Kordsa offers various talent management and lifelong learning programs to improve competencies of employees in the talent pool and to facilitate long-term employability. Alongside internal global development programs, trainings, and mentorship, we also provide financial support, as specified in our procedures, to our employees for MA/MB, PhD, and certification programs they wish to attend depending on the type and institution of training.

Global Development Programs are; Generation Next for specialist-engineer level; Global Alignment for middle-level management; and SALT Sabancı Leadership Team for upper-level management. Global Development Programs focus on developing technical expertise and leadership. With the Global Alignment Program, we initiated in 2017, we aimed to bring the leadership qualifications of our global plant managers on a common ground. We designed he program, which is comprised of seven complimentary modules, to be completed in three years. After each module, there will be follow up and home Works besides group mentorship to reinforce the desired qualifications.

BREAKDOWN OF TRAININGS





TALENT MANAGEMENT-DEVELOPMENT PROGRAMS	PARTICIPANTS
Kordsa Mentorship Program	25
Generation Next (Specialists and Engineers)	16
Leadership Fundamentals (Middle Management)	153
Group Mentorship Program	7
Young Sabancı Program	2
SA EXE (Top Management)	0

67% 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.



Mentorship: Starting in 2014, the mentorship program is implemented across all Sabancı Holding companies also accepts Kordsa talents at specialist-engineer and manager level, as 'mentees. In September 2017 we formed an extraordinary mentorship program that works conversely. The program will last one year, and ELT Members will work together with Y generation on differences between generations and the climate that top management creates in the company.

**Training:** Besides internal training programs, we also encourage our employees to take part in development programs organized by Sabancı Holding for specialist engineer level, such as the Young Sabancı program or Group Mentorship program.

### SOCIAL PERFORMANCE TRAINING AND EDUCATION



#### **KEEP**

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, quicker and time-effective 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 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 plants, screensavers, intranet announcements, and various rewarding activities. In 2017, our employees took 865 hours of training over KEEP.







#### **ALL STARS**

At Kordsa, successful projects, employees who take part in these projects, and high performing organizations (country-plant) are rewarded globally each year under 'All Stars Awards' scheme since 2006.

We pay utmost attention to implement a fair, inspiring recognition and rewarding strategy since we know it is critical to retain the skilled, talented employees at all levels. All Stars is a Global Recognition and Rewarding practice run by Global HR on top of Local Recognition and Rewarding processes managed by each county's HR 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 two months. All employees are invited to awards ceremony that takes place in the following year.

All Stars is very popular across all of our premises due to its engaging and encouraging scheme. Since 2014, the award ceremony is broadcasted live through video conference, which elevates the excitement and engagement by everyone at each of our locations around the world. In All Stars 2017, we rewarded USD 100 thousand to 27 projects where 1,163 employees participated with 129 different projects.

### SOCIAL PERFORMANCE OCCUPATIONAL HEALTH AND SAFETY

**INTERNAL STAKEHOLDER VIEW** 

#### 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 disease.

We implement "The 10 Golden Rules of Occupational Safety" we identified to prevent employee injuries across all our plants. There has not been any fatal accidents in any of our plants or subcontractors during the reporting period.

We have Management-Worker Health and Safety Committees in all our facilities with the same operating structure. 100% of our workforce is represented in these committees. Globally we are executing two projects on OHS; Safety Experience Center and Machinery Safety Application.

The majority of the project ideas regarding occupational health and safety come from our employees. In 2017 total number of project ideas from our employees from all the facilities were 1,886. We started implementing 255 of the 553 ideas on EHS collected during 2017. With these projects we took more precautions towards accidents which may occur as a result of business in the facility and chemical exposure.



#### SAFETY EXPERIENCE CENTER

Safety, Health, and Environment is our first value in our strategy house. We demonstrate this value by investing on Safety Experience Centers at all our plants. Safety Experience Center is series of training simulators, that is developed to make people "experience" the accidents and "feel" its aftermath when it occurs.

Our aim is to train all employees and contractors in order to achieve our injury-free days and as a result to create positive indirect economic impact on our company due to reduced lost days.

We initiated this project at Indonesia plant in 2015 and at Turkey and Brazil plants in 2016 and Thailand plant in 2017. Later in the same year we shipped the center to US Chatanooga and US Laurel Hill to train our emplyees at these sites.

## 89% 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.

BEST ACHIEVED INJURY	2015	2016	2017
FREE HOURS AT KORDSA			
FACILITIES			
Turkey-İzmit	1,964,071	1,964,071	1,964,071
Thailand	3,210,448	3,210,448	3,210,448
USA-CH	621,540	818,902	818,902
USA-LH	312,500	648,316	724,920
Indonesia	2,923,648	2,923,648	2,923,648
Brazil	1,252,333	1,252,333	1,252,333
Turkey-CTCE	n.a.	n.a.	168,995
			n.a.
OHS TRAINING HOURS/	2015	2016	2017
EMPLOYEE			
Turkey-İzmit	14	7	11
Thailand	15	17	13
USA - CH	30	6	5
USA - LH	14	13	2
Indonesia	16	12	14
Brazil	20	32	12
Turkey-CTCE	n.a.	n.a.	1.8

CTCE: Composite Technologies Center of Excellence n.a.: not data not available

## SOCIAL PERFORMANCE OCCUPATIONAL HEALTH AND SAFETY



#### MACHINERY SAFETY APPLICATION

The safety project for dipping machines initiated to prevent accidents at dipping machines, has emerged as a result of the statistical analysis of occupational accidents, and has become the top priority project for occupational safety targets. Our aim is to prevent machine-related accidents. Although this project falls within the scope of EN 12100 Safety of Machinery Standard and other related industrial EN standards, it is entirely voluntary.

In our Turkey plant we started the pilot risk analysis in 2015. We started implementation of the project in 2016 where we had no accidents related with machinery safety in dipping unit. We expanded the project scope to cover all plants with dipping units; Indonesia, Thailand, USA, and Brazil and completed risk analyses for all in 2015. We finished installation of mechanical guarding of Indonesia and Thailand plants in 2016 and started implementations at Brazil and US plants in 2017.

NAME OF COMMITTEE	DEFINITION	LEGAL / VOLUNTARY	PARTICIPANTS
Emergency Response Team	Organized for all shifts in the plant.	Legally required	Blue and white-collar employees
Energy Committee	Monitors energy use and ISO	Legally required	White-collar employees, and
	50001; prepares energy reports		Maintenance Manager as
	and manages energy reduction		Chairman
	projects.		
Electrical Safety Committee	Lays down all rules and standards	Company initiative	Mostly white-collar and also
	on electricity hazards in the plant;		blue-collar employees
	makes inspections and provides		
	training.		
Process Safety Management	Carries out activities and	Company initiative	White-collar employees
	inspections for explosions, fires,		
	leaks and occupational accidents		
	that may arise from the production		
	process. Have annual targets.	Legally required	
OHS Committee	Official meeting of the		Employer representatives,
	representatives of the employer		union representatives, managers,
	and employees. All legal decisions		subcontractor representatives
	are made by this committee.		
OHSES (Occupational Health &	Works to improve OHSES	Company initiative	All department managers and
Safety, Environment &	performance, disseminate OHSES		representatives, and Operations
Sustainability)	culture, manage improvement and		Director as Chairman
Management Committee	development activities, and review		
	performance.		
Hazardous Chemicals Committee	Identifies hazards wherever	Company initiative	White and blue-collar employees
	chemicals are used, conducts risk		
	analyses, sets safety markings		
	properly and provides trainings on		
	chemical hazards.		



## ENVIRONMENTAL PERFORMANCE



One of the seven values underlying Kordsa's growth strategy is to protect the environment. We invest in clean technologies

to reduce emissions and other wastes and to develop projects for the efficient use of energy and water. In 2017, we

invested over USD 201 thousand for environment protection in Turkey. Our plant in Turkey has ISO 14001 certification and

our plant in Indonesia is certified in 2017. We plan to obtain

environmental management system certification in Thailand,

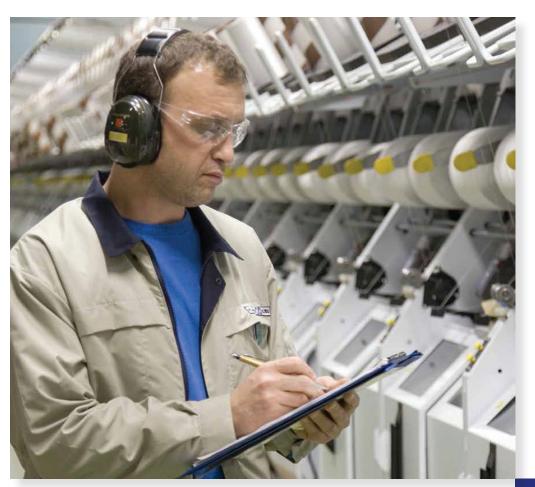
US and Brazil plants by 2018.

### MATERIALS MANAGEMENT

**INTERNAL STAKEHOLDER VIEW** 

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

KORDSA'S PRACTICES FOR EFFICIENT USE OF RAW MATERIALS ARE ADEQUATE.



#### MATERIALS MANAGEMENT

Selection and efficient use of raw materials rank among the top indispensable elements of our company's production. Raw material expenditures constitute about 75% of our total procurement.

The targets we set with regard to materials management include improving materials handling systems, enhancing warehouse organization, conducting field audits of the contracts concluded with suppliers, and improving the system established for just-in-time delivery of raw materials.

We work on the efficient use of materials, producing the same quality product with less material, enabling reuse of materials if possible, and using, transporting and disposing of materials to minimize their environmental impact. We implement projects to reuse materials and to decrease the consumption of raw materials we use in the production.



#### PROJECT TO REUSE PAPER TUBES AND METAL SHELLS

In this project that we developed for Kordsa Turkey plant in order to increase the reuse of paper tubes our yarn products are wound around, we aim to contribute to the corporate budget and natural resource savings. We have duplicated this project in the rest of our plants in the following years. In the below chart the data of NY yarn product includes Turkey, Indonesia and US Chattanooga plants and the data on PET yarn product includes Turkey, Indonesia and Brazil plants. Through this project besides directly creating a positive impact on the conservation of natural resources, we saved USD 1.24 million in 2017.

In 2017, we also started collecting and reusing metal shells that we use to package our TCF product group. In the first year we managed to collect and reuse %51 of the metal shells that were shipped to our customers.

NY YARN	NUMBER OF REUSED	SAVINGS (USD)
	PAPER TUBES	
2014	640,329	384,197
2015	833,879	500,327
2016	1,154,218	692,531
2017	926,280	555,768
PET YARN	NUMBER OF REUSED	SAVINGS (USD)
	PAPER TUBES	
2014	874,720	524,832
2015	1,166,407	699,844
2016	980,055	588,033
2017	1,090,581	654,349
TCF	NUMBER OF METAL	NUMBER OF METAL
	SHELLS USED	SHELLS RE-USED
2017	43.763	22.513



#### **PROJECT TO REDUCE USE OF MATERIALS**

As a result of monitoring our performance in the use of materials and our efficiency efforts, we achieved improvements up to 78% in the use of chemicals and flake rates at our plants since 2014, our baseline year. Although Kordsa continued to impove its capacity optimizations in USA, Brazil and Indonesia and R&D programs ran in Turkey, there has not been any significant increases in chemical consumptions and we have even achieved to decrease chemical use up to %6 at some of our plants.

The table below shows the ratios of data of materials and chemicals used at our plants.

MATERIALS	PLANTS	2014	2015	2016	2017
TCF Chemical Ratio	Dipping NY - Turkey	1.12	1.13	1.14	1.14
	Dipping PET - Turkey	1.23	1.22	1.23	1.24
	Dipping - USA / LH	1.03	1.03	1.19	1.03
	Dipping - Brazil	1.16	1.14	1.16	1.09
	Dipping TCF1 - Indonesia	1.09	1.14	1.17	1.17
	Dipping TCF2 - Indonesia	n.a.	n.a.	1.27	1.23
	Dipping - Thailand	1.10	1.08	1.06	1.08
MATERIALS	PLANTS	2014	2015	2016	2017
NY Salt / Flake Ratio	NY Yarn Line 1 - Turkey	1.22	1.17	1.18	1.17
	NY Yarn Line 2 - Turkey	1.07	1.02	1.02	1.03
	NY Yarn Line 2 - Turkey	n.a.	n.a.	n.a.	1.02
	NY Yarn - USA / CH	1.19	1.19	1.22	1.23
	Yarn - Brazil	n.a.	n.a.	n.a.	0.57
	NY Yarn - Indonesia	1.02	1.00	1.00	0.99
	PET Yarn - Indonesia	n.a.	n.a.	n.a.	1.05
MATERIALS	PLANTS	2014	2015	2016	2017
SEC Chemical Ratio	SEC - Turkey	1.30	1.28	1.28	1.27
	SEC - Brazil	n.a.	n.a.	1.17	1.14

## ENVIRONMENTAL PERFORMANCE ENERGY & EMISSIONS MANAGEMENT

#### ENERGY MANAGEMENT

At Kordsa, electricity, natural gas and steam are the main types of energy we use as input for production. Our goals of achieving energy efficiency, and reducing energy use per ton of product is strategically important for us. Taking 2011 data as the base year, we monitor our energy consumption trends of our plants and manufacturing processes. We make our calculations based on ISO 50001 standard.

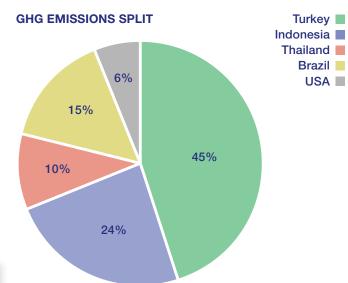
After the significant reductions of 2011-2014 period, we managed to reduce our natural gas comsumption in all our plants. The highest reductions are achieved by 43 to 51% in our Turkey, US, Thailand and Brazil plants' dipping processes.

In nylon yarn production we achieved a 50% reduction in energy consumption per ton of production in US Chatanoga plant. This saving reached upto %17-18 in Turkey and Indonesia plants. In polyester yarn processes of Indonesia, Turkey and Brazil we achieved to reduce energy consumptions by 34 to 51%. All related data can be found in the environmental performance tables.

#### INTERNAL STAKEHOLDER VIEW

71% of our employees who responded to the sustainability assessment survey think that...

KORDSA'S INVESTMENTS AND PROJECTS TO ASSURE ENERGY EFFICIENCY ARE ADEQUATE.



#### KORDSA EMISSIONS MANAGEMENT (Scope 1)

KORDSA PLANTS (TONS CO <sub>2</sub> e)	2014	2015	2016	2017
Turkey	30,533	36,695	35,802	35,995
Indonesia	n.a.	12,394	17,113	18,577
Thailand	n.a.	6,670	7,078	7,768
Brazil	n.a.	n.a.	6,411	11,737
USA / CH	n.a.	n.a.	14	24
USA / LH	n.a.	n.a.	3,810	4,560

All data is calculated based on natural gas, diesel and LPG consumption. n.a.: data not available

#### INTERNAL STAKEHOLDER VIEW

## **68%** 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**

Considering the negative impacts of climate change we started emission management by measuring and monitoring our wastes. We started calculating our greenhouse gas emissions in Kordsa Turkey in 2014, approved by the Ministry of Environment in line with the GHG Regulations and initiated CDP reporting.

We started calculating and monitoring our direct emissions (Scope 1) of Indonesia and Thailand plants in 2015 and the rest of the plants in 2017. We plan to complete data collection from all plants for scope 1, 2 and 3 by 2020.

Although our production capacity increased by 10% as a result of Line 3 expansion at Turkey plant, our GHG emissions per ton of production only increased by 1.8% from 3.27 tons  $CO_2e$  to 3.33 tons  $CO_2e$ . At Kordsa, we will continue to monitor and calculate our emissions per unit of production and keep on making systematic improvements on emission reduction.

### WASTE MANAGEMENT

#### INTERNAL STAKEHOLDER VIEW

74% 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 plants, disposal, recovery and reuse of production wastes and wastewater are among our regular activites as specified by law. We dispose 100% of the wastes created at our plants through recycling, reclamation, landfill, incineration and direct disposal based on national regulations.

Other priorities include reduction of hazardous waste, increased recovery rates, and creating reuse opportunities. At least 65% of wastes arising in Kordsa Turkey are either recoverable or re-usable. In the rest of our operations, in accordance with national regulations, we segretate our waste based on hazardous and non-hazardous criteria. We started crecording waste data from all sites in 2016.

In 2017, our hazardous waste amount decreased significanty in US Chatanoga plant and by %17 in Indonesia, while it increased in the rest of our facilities by 2-3%. In 2017 we continued to efficiently use our corporate resources and also prevented environmental pollution with our onging projects to recover some of our materials and reuse them in the production.

HAZARDOUS WASTE (TONS)	2015	2016	2017
Turkey-İzmit	1,331	1,714	1,757
Indonesia	309	1,069	886
Thailand	144	111	220
USA / CH	n.a.	466	14
USA / LH	n.a.	112	171
Brazil	n.a.	9	7
Turkey-CTCE	n.a.	n.a.	3

n.a.: data not available

### NVIRONMENTAL PERFORMANCE WASTE MANAGEMENT

**Raw Material** Management Transportation **Procurement** Production TCF (Tire Cord Fabric) Sales **Reprocessed Chips** Process 1: Process 2: Process 3: **Polymerization** Twisting Dipping Spinning Weaving Intermediary product: End product: Intermediary product: TCF (Tire Cord Fabric) Yarn Greige fabric Nylon • Polyester **Reprocess:** Side products: End product: (Melting yarn back **Reprocessed Chips** Yarn pieces to polymer form)

Customers

#### **USE OF THE REPROCESSED CHIP MACHINE**

We produce NY66 chips from yarn production side products to be used in engineering plastics industry. By this conversion, we are adding more value to side products of a yarn plant.

#### **Economic and Environmental Gains:**

Engineering plastics compounders now import less Nylon 6.6 raw materials and they are able to increase their profitability by decreasing raw material costs.

We turned Nylon 6.6 yarn by products into a high value-added product, thus its profitability is increased. Annually we are reprocessing approximately 1,000 tons of by products and saving around USD 1.7 million.

#### WATER MANAGEMENT

Water use is of paramount importance for the manufacturing processes at Kordsa plants and auxiliary operations. Water quality, accessibility and preservation of usable water resources are essential 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 goverment piping. Our investments ensure that our water treatment capacity will meet the demand of future expansions.

Our water resources, which may vary according to the plant's location, include municipality, ground, seas, rivers and lakes. In Turkey and Brazil our main withdrawal source is ground and city water while it is rivers and ground water in Indonesia and city water in Thailand and US plants.

At all plants and offices, we put efforts to use water more efficiently, we encourage industrial reuse of treated water through reverse osmosis sytem. In Turkey, we have treated and reused about 108 thousand m<sup>3</sup> water in 2017.

In 2017, we managed to decrease our water consumption by 33% in Turkey, by 30% in US Chatanoga, by 12% in Brazil, by 6% in Indonesia and by 4% in Thailand. In 2017, we started reviewing our water monitoring methods for more accurate data gathering and we plan to start a water monitoring program for better water mangement at all our locations in the coming years. 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.

**INTERNAL STAKEHOLDER VIEW** 

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

KORDSA'S INITIATIVES TO CONSERVE BIODIVERSITY IN AND AROUND ITS PLANTS ARE ADEQUATE.

#### **BIODIVERSITY CONSERVATION**

During our first sustainability strategy works at Kordsa in 2014, biodiversity has not brought up by any of our stakeholders as a priority issue. Nevertheless, considering the ISE Sustainability Index requirements, conservation of biodiversity took its place among our global sustainability topics. We implement Environmental Impact Assessments (EIA) at our plants as needed. The assessments completed to date and actions taken are listed in the following;

#### ENVIRONMENTAL IMPACT ASSESSMENTS

Turkey: 2006, 2010 and 2016 Reason: Establishment and capacity increases Actions: None (Negative impacts were not assessed.) Indonesia: 2013

Reason: New plant construction

Actions: Although there were no findings of endangered species under risk, we moved about 110 trees outside the construction area and planted them in and around the plant to preserve all flora and fauna.

As none of our plants are adjacent to any protected areas like national nature and wildlife parks, any water resources and areas of high biodiversity value, we did not need to involve with NGOs or other conservation organizations in developing biodiversity action plans (BAPs) or other biodiversity initiatives. We plan to conduct EIAs in other countries of operation within the coming years.

2017 (m <sup>3</sup> /year)	GROUND WATER	CITY WATER	WATER FROM RIVERS	RECYCLED WATER
Turkey	338,367	66,568	n.a.	108,077
Indonesia	2839	n.a.	424,111	n.a.
Thailand	n.a.	102,043	n.a.	n.a.
USA / CH	n.a.	96,449	113,114	n.a.
USA / LH	n.a.	18,151	n.a.	n.a.
Brazil	102,035	7,551	n.a.	n.a.

n.a.: data not available

## PERFORMANCE INDICATORS



## ECONOMIC PERFORMANCE INDICATORS

ECONOMIC VALUE CREATED &				
DISTRIBUTED (TRY 1,000)	2014	2015	2016	2017
Economic value generated	1,811,782	1,866,751	2,085,142	2,723,513
(Net Revenues)				
ECONOMIC VALUE DISTRIBUTED				
TO STAKEHOLDERS				
Operating expenses	1,479,798	1,419,689	1,511,811	2,035,686
Benefit to employees	221,590	253,929	292,597	360,519
Benefit to government	10,671	16,164	36,429	35,829
Benefit to providers of capital	0	60,615	57,662	66,885
Benefit to community	5,150	6,942	8,530	12,371
Economic value retained (profit)	94,573	116,354	178,113	212,223
FINANCIAL ASSISTANCE				
RECEIVED FROM GOVERNMENT	2014	2015	2016	2017
Turquality	1,693	1,041	635	1,339
Tax reliefs	24,073	8,381	20,776	27,854
Incentives	25,326	17,335	20,080	23,660



EMPLOYEES					
By Type of Employment	Unit	2014	2015	2016	2017
White-collar - Women	People	206	208	213	244
White-collar - Men	People	529	530	492	455
Blue-collar - Women	People	207	201	204	207
Blue-collar - Men	People	2,807	2,806	2,881	2,968
Total	People	3,749	3,745	3,790	3,874
By Location	Unit	2014	2015	2016	2017
Turkey - Women	People	87	105	109	114
Turkey - Men	People	1,034	1,046	1,270	1,321
Indonesia- Women	People	66	65	69	79
Indonesia - Men	People	1,086	1,114	1,225	1,233
Thailand - Women	People	111	112	100	112
Thailand - Men	People	262	267	286	275
Egypt - Women	People	4	4	0	0
Egypt - Men	People	244	240	0	0
Brazil- Women	People	33	36	51	53
Brazil - Men	People	365	369	366	329
USA - Women	People	90	71	85	89
USA - Men	People	276	230	225	265
Germany - Women	People	19	13	0	0
Germany - Men	People	68	69	0	0
China - Women	People	3	3	3	3
China - Men	People	1	1	1	1
Argentina - Women	People	0	0	0	0
Argentina - Men	People	0	0	0	0
By Gender	Unit	2014	2015	2016	2017
Men	People	3,336	3,336	3,373	3,424
	Ratio	88.98%	89.08%	89.00%	88.38%
Women	People	413	409	417	450
	Ratio	11.02%	10.92%	11.00%	11.62%
By Age	Unit	2014	2015	2016	2017
30 Years and below	Women	51	59	71	87
	Ratio	1.36%		1.87%	2.25%
	Men	840	837	846	1,145
	Ratio	22.41%		22.32%	29.56%
30 - 50 Years	Women	263	278	275	272
	Ratio	7.02%		7.26%	7.02%
	Men	2,043	2,042	2,067	1,875
	Ratio	54.49%		54.54%	48.40%
50 Years and above	Women	73	72	71	91
	Ratio	1.95%		1.87%	2.35%
	Men	479	457	460	404
	Ratio	12.78%		12.14%	10.43%

EMPLOYEES					
By Other Groups	Unit	2014	2015	2016	2017
Expats	Women	1	0	1	(
	Ratio	0.03%	0.00%	0.03%	0.00%
	Men	15	11	13	12
	Ratio	0.41%	0.30%	0.34%	0.31%
Persons with disabilities	Women	2	1	0	(
	Ratio	0.05%	0.03%	0.00%	0.00%
	Men	32	33	31	36
	Ratio	0.85%	0.88%	0.82%	0.93%
By Management Category	Unit	2014	2015	2016	201
Executives (ELT)	Women	2	1	2	1
	Ratio	0.05%	0.03%	0.05%	0.05%
	Men	5	9	8	į
	Ratio	0.13%	0.24%	0.21%	0.21%
Director	Women	4	4	1	į
	Ratio	0.11%	0.11%	0.03%	0.13%
	Men	20	12	10	1:
	Ratio	0.53%	0.32%	0.26%	0.31%
Manager	Women	24	29	31	3
	Ratio	0.64%	0.77%	0.82%	0.80%
	Men	78	102	104	10
	Ratio	2.08%	2.72%	2.74%	2.66%
Engineer & Specialist	Women	94	101	102	12
	Ratio	2.51%	2.69%	2.69%	3.18%
	Men	216	210	210	20
	Ratio	5.76%	5.60%	5,54%	5.32%
Supervisor & Technician	Women	4	7	8	1
	Ratio	0.11%	0.19%	0,21%	0.28%
	Men	113	131	136	13
	Ratio	3.01%	3.49%	3.59%	3.56%
Officer (White-collar)	Women	79	76	76	8
	Ratio	2.11%	2.03%	2.01%	2.19%
	Men	114	81	92	9
	Ratio	3.04%	2.16%	2.43%	2.32%
Operator	Women	198	191	192	19;
	Ratio	5.28%	5.09%	5.07%	4.98%
	Men	2,798	2,791	2,818	2,86
	Ratio	74.63%	74.45%	74.35%	74.01%

(Board of Directors and ELT)	Unit	2014	2015	2016	2017
Women	Ratio	0.05%	0.03%	0.05%	0.05%
30 Years and below	Ratio	0.00%	0.00%	0.00%	0.00%
30 - 50 Years	Ratio	0.11%	0.11%	0.16%	0.16%
50 Years and above	Ratio	0.08%	0.13%	0.11%	0.11%
Expats	Ratio	0.00%	0.00%	0.03%	0.03%
Employees with disabilities	Ratio	0.00%	0.00%	0.00%	0.00%
KORDSA EMPLOYEE HIRES AND DISMISSALS					
Hires and Dismissals					
(All Kordsa)	Unit	2014	2015	2016	2017
New hires - Women	People	45	27	49	49
Dismissals - Women	People	44	59	41	51
New hires - Men	People	487	332	338	403
Dismissals - Men	People	375	296	301	339
TOTAL – Dismissals	People	419	355	342	390
TOTAL – New hires	People	532	359	387	452
KORDSA TRAINING					
INVESTMENTS	All Trainings				
By Employee Category	Unit	2014	2015	2016	2017
Executives (ELT)	Man/Hours	6.0	13.0	14.2	10.0
Director	Man/Hours	117.1	97.4	95.6	90.6
Manager	Man/Hours	67.9	150.1	97.3	92.1
Engineer & Specialist	Man/Hours	173.2	232.0	207.9	190.2
& Officer (White-collar)					
Supervisor & Technician	Man/Hours	186.5	214.3	219.2	206.7
Operator	Man/Hours	257.3	250.2	253.8	242.4
By Gender	Unit	2014	2015	2016	2017
Men	Man/Hours	255.5	262.7	260.3	241.9
Women	Man/Hours	104.4	119.5	114.7	109.6
KORDSA TRAINING HOURS	Unit	2014	2015	2016	2017
Career Development	Hours	118,882	129,586	136,401	130,753
Personal Development	Hours	17,496	23,590	21,431	22,768
Health and Safety	Hours	38,116	38,002	40,007	41,109
Other	Hours	1,966	1,261	1,340	967

HEALTH AND SAFETY MANAGEMENT							
Facilities		Turkev			Thailand		
Incidents	Unit	2015	2016	2017	2015	2016	2017
Frequency	Rate	0.73	0.31	0.23	0.25	0.00	0.00
Severity	Rate	23.38	7.76	6.91	0.00	0.00	0.00
Type of Recordable Case	Number (Kordsa)	9 LWC	1 MTC 2 LWC	3 LWC	1 MTC	0.00	0.00
	Number (Contractor)	6 MTC	2 LWC	3 LWC	0.00	0.00	0.00
Facilities		USA - CH			USA - LH		
Incidents	Unit	2015	2016	2017	2015	2016	2017
Frequency	Rate	0.00	1.03	0.00	0.00	0.00	0.00
Severity	Rate	0.00	2.07	0.00	0.00	0.00	0.00
Type of Recordable Case	Number (Kordsa)	0.00	1 MTC 1 LWC	0.00	0.00	0.00	0.00
	Number (Contractor)	0.00	0.00	0.00	0.00	0.00	0.00
Facilities		Indonesia			Brazil		
Incidents	Unit	2015	2016	2017	2015	2016	2017
Frequency	Rate	0.00	0.36	0.08	0.73	0.74	0.31
Severity	Rate	0.00	3.35	1.46	1.25	4.46	0.00
Type of Recordable Case	Number (Kordsa)	0.00	4 LWC	1 LWC	2 RWC 1 LWC	3 LWC	1 RWC
	Number (Contractor)	0.00	0.00	0.00	0.00	2 LWC	0.00

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.

Frequency Rate: (Number of recordable case / Total working hours) X 200.000 Severity Rate: (Number of lost days / Total working hours) X 200.000 All accidents up to and including first aid level are not calculated within the accident frequency rate. Fatal accidents are not calculated within the accident frequency rate. Lost days are calculated based on calendar days. Lost day count starts the day after the accident.

## PERFORMANCE INDICATORS ENVIRONMENTAL PERFORMANCE INDICATORS

#### KORDSA WASTE MANAGEMENT

~ ~	Wastes By Type (Tons)	2015	2016	2017
Εž	Hazardous Waste	n.a.	n.a.	3.1
	Non-hazardous Waste	n.a.	n.a.	5.7
COMPOSITE TECHNOLOGIES CENTER OF EXCELLENCE - TURKEY	Total Waste	n.a.	n.a.	8.8
OS IES	Wastes By Disposal Method	2015	2016	2017
AP OG	Recycling	n.a.	n.a.	5.7
	Reclamation	n.a.	n.a.	2.7
Ŭ H N	Landfill	n.a.	n.a.	0
	Incineration	n.a.	n.a.	0.4
ΡÖ	Total Disposed Waste	n.a.	n.a.	8.8
	Wastes By Type (Tons)	2015	2016	2017
	Hazardous Waste	1,331	1,714	1,757
	Non-hazardous Waste	3,118	3,157	2,385
~	Total Waste	4,449	4,871	4,142
TURKEY	Wastes By Disposal Method	2015	2016	2017
UR	Recycling	3,114	3,156	2,379.4
-	Reclamation	1,31	1,691	1,755.5
	Landfill	1	1	0.6
	Incineration	24	23	6.7
	Total Disposed Waste	4,449	4,871	4,142
	Wastes By Type (Tons)	2015	2016	2017
	Hazardous Waste	425	1,069	886
	Non-hazardous Waste	2,608	2,793	1,379
<b>∀</b>	Total Waste	3,032	3,862	2,265
ES	Wastes By Disposal Method	2015	2016	2017
NDONESIA	Recycling	2,607	2,793	1,379
	Reclamation	308	1,069	885
	Landfill	0	0	0
	Incineration	117	0	0.8
	Total Disposed Waste	3,032	3,862	2,265
	Wastes By Type (Tons)	2015	2016	2017
	Hazardous Waste	144	111	220
	Non-hazardous Waste	5	187	1
9	Total Waste	149	298	221
THAILAND	Wastes By Disposal Method	2015	2016	2017
AIL	Recycling	5	186	0
E	Reclamation	82	111	220
	Landfill	0	0	0.14
	Incineration	62	1	0.81

	Wastes By Type (Tons)	2015	2016	2017
	Hazardous Waste	n.a.	9	7
	Non-hazardous Waste	n.a.	1,15	702
	Total Waste	n.a.	1,158	709
BRAZIL	Wastes By Disposal Method	2015	2016	2017
3R/	Recycling	n.a.	1,149	701
	Reclamation	n.a.	5	2.5
	Landfill	n.a.	3	5
	Incineration	n.a.	2	0.5
	Total Disposed Waste	n.a.	1,158	709
	Wastes By Type (Tons)	2015	2016	2017
	Hazardous Waste	n.a.	112	171
	Non-hazardous Waste	n.a.	5	0
-	Total Waste	n.a.	117	171
/ LH	Wastes By Disposal Method	2015	2016	2017
USA /	Recycling	n.a.	5	0
$\cap$	Reclamation	n.a.	112	171
	Landfill	n.a.	0	0
	Incineration	n.a.	0	0
	Total Disposed Waste	n.a.	117	171
-		0015		
	Wastes By Type (Tons)	2015	2016	2017
	Hazardous Waste	n.a.	303	14
	Non-hazardous Waste	n.a.	10	6
R	Total Waste	n.a.	313	20
USA / CH	Wastes By Disposal Method	2015	2016	2017
1SL	Recycling	n.a.	10	6
	Reclamation	n.a.	303	13
	Landfill	n.a.	0.2	0.3
	Incineration	n.a.	0	0.3
	Total Disposed Waste	n.a.	313	20

#### KORDSA ENERGY EFFICIENCY

Dipping NY - Turkey	2014	2015	2016	2017
Natural Gas ( kwh/ton )	53.3	41.7	35	29.7
Other Energy Consumption ( kwh/ton )	88.4	84.8	88.1	94
Dipping PET - Turkey	2014	2015	2016	2017
Natural Gas ( kwh/ton )	83.6	78.6	82.9	87.1
Other Energy Consumption ( kwh/ton )	98.4	85.3	85.1	86.4
Dipping - LH / USA	2014	2015	2016	2017
Natural Gas ( kwh/ton )	88.7	69.5	60.6	49.8
Other Energy Consumption (kwhton)	91.4	87.4	87.1	84
Dipping - Brazil	2014	2015	2016	2017
Natural Gas ( kwh/ton )	64.8	54.7	41.8	31.5
Other Energy Consumption ( kwh/ton )	89.3	79.7	65.1	50.3
Dipping TCF1 - Indonesia	2014	2015	2016	2017
Natural Gas ( kwh/ton )	74.4	67.8	73.4	80.3
Other Energy Consumption ( kwh/ton )	85.9	74.3	68	64.6
Dipping TCF2 - Indonesia	2014	2015	2016	2017
Natural Gas ( kwh/ton )	n.a.	100	96.3	88.9
Other Energy Consumption ( kwh/ton )	n.a.	100	79.6	62.7
Dipping - Thailand	2014	2015	2016	2017
Natural Gas ( kwh/ton )	58.5	47.5	37.1	29.6
Other Energy Consumption ( kwh/ton )	84.5	71	57	44.9
NY Yarn Line 1 - Turkey	2014	2015	2016	2017
Energy ( kwh/ton )	75.2	73.4	72.1	62.7
NY Yarn Line 2 - Turkey	2014	2015	2016	2017
Energy ( kwh/ton )	112	151	181	217
NY Yarn - CH / USA	2014	2015	2016	2017
Energy ( kwh/ton )	68.8	58.9	42.7	33.6
NY Yarn - Indonesia	2014	2015	2016	2017
Energy ( kwh/ton )	113	108	96	83.1
PET Yarn - Turkey	2014	2015	2016	2017
Energy ( kwh/ton )	64.3	51.5	41.3	31.4
PET Yarn - Brazil	2014	2015	2016	2017
Energy ( kwh/ton )	70.5	60.3	50.8	37.3
PET Yarn - Indonesia	2014	2015	2016	2017
Energy ( kwh/ton )	82	71.6	61.9	54.2
SEC - Turkey	2014	2015	2016	2017
Natural Gas ( kwh/ton )	60.7	43	33	24
Other Energy Consumption ( kwh/ton )	96.8	79	88	89
SEC - Brazil	2014	2015	2016	2017
Natural Gas ( kwh/ton )	77.6	67.8	66.2	56.3
Other Energy Consumption ( kwh/ton )	76.7	69.1	60.6	38.6

#### KORDSA WATER MANAGEMENT

Withdrawal Water (m³/year)	2014	2015	2016	2017
Turkey	525	488,2	606,935	404,935
Indonesia	369,767	359,767	456,136	426,950
Thailand	n.a.	96,14	106,082	102,043
USA / CH	n.a.	n.a.	299,263	209,563
USA / LH	n.a.	n.a.	4,535	18,151
Brazil	n.a.	n.a.	124,646	109,586
Discharge Water (m³/year)	2014	2015	2016	2017
Turkey	200,58	385,98	134,218	84,768
Indonesia	36,5	43,836	51,6	61,920
Thailand	n.a.	76,912	84,866	81,635
USA / CH	n.a.	n.a.	5,519	58,861
USA / LH	n.a.	n.a.	3,382	134,072
Brazil	n.a.	n.a.	60,212	40,958

## ANNEXES

MEMBERSHIPS
TURKEY
ACC Legal Consultants Association
DEIK Foreign Economic Relations Board
Equality at Work Platform
ISO Istanbul Chamber of Industry
ITO Istanbul Chamber of Commerce
ITKIB The General Secretariat of Istanbul Textile & Apparel Exporter's Association
İTHİB Turkish Textile Employer's Associations
KALDER Quality Association
Rubber Association
Kocaeli Chamber of Industry
Kocaeli Chamber of Commerce
Turkish Composites Manufacturers Association
LES Turkey Technology and License Executives Society
PERYÖN Personnel Management Association of Turkey
TBCSD Turkish Business Council of Sustainable Development
TIDE The Institute of Internal Auditing Turkey
TMMOB Turkish Chamber of Mechanical Engineers
TTSIS Turkish Textile Industry Employers' Union
TÜSİAD Turkish Industry & Businessmen Association
UN Global Compact
INDONESIA
APINDO The Employers' Association of Indonesia
HIBERKIBRA - Neigborhood Corporate Association
Indonesian Public Listed Companies 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

## GRI CONTEXT INDEX



Aug 2018 Service

	Our animation of Dusfile	Location of Disclosure
100.1	Organizational Profile	D 50
102-1	Name of the organization	Page 59
102-2	Activities, brands, products, and services	Page 8
102-3	Location of headquarters	İstanbul / Turkey
102-4	Location of operations	Page 59
102-5	Ownership and legal form	Corporation
102-6	Markets served	Page 8
102-7	Scale of the organization	Page 7
102-8	Information on employees and other workers	Page 52
102-9	Supply chain	Page 33
102-10	Significant changes to the organization and its supply chain	Page 33
102-11	Precautionary principle	Page 44
102-12	External initiatives	UNGC, UNWEP
102-13	Membership of associations	Page 56
	Strategy	
102-14	Statement from senior decision-maker	Page 4
102-15	Key impacts, risks, and opportunities	Page 22
	Ethics and Integrity	
102-16	Values, principles, standards, and norms of behavior	Page 14
102-17	Mechanisms for advice and concerns about ethics	Page 12
	Governance	
102-18	Governance structure	Page 11
	Stakeholder Engagement	
102-40	List of stakeholder groups	Page 15
102-41	Collective bargaining agreements	Page 39
102-42	Identifying and selecting stakeholders	Page 15
102-43	Approach to stakeholder engagement	Page 16
102-44	Key topics and concerns raised	Page 16
	Reporting Practice	
102-45	Entities included in the consolidated financial statements	Page 59
102-46	Defining report content and topic boundaries	Page 19
102-47	List of material topics	Page 18
102-48	Restatements of information	Ongoing projects
102-49	Changes in reporting	No changes
102-50	Reporting period	2017
102-51	Date of most recent report	2016
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Page 59
102-54	Claims of reporting in accordance with the GRI Standards	Page 3
102-55	GRI Content index	Page 56
102-56	External verification	None

#### GRI 103 MANAGEMENT APPROACH 2016

		Location of Disclosur
GRI 200	GRI 200 ECONOMIC STANDARDS SERIES	
	GRI 201 Economic Performance, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 28
	GRI 204 Procurement Practices, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 33
	GRI 205 Anti-Corruption, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 12
RI 300	GRI 300 ENVIRONMENTAL STANDARDS SERIES	
	GRI 301 Materials, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 45
	GRI 302 Energy, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 47
	GRI 303 Water, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 50
	GRI 304 Biodiversity, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 50
	GRI 305 Emissions, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 47
	GRI 306 Effluents and Waste, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 48
	GRI 308 Supplier Environmental Assessment, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 19-20
	103-2 The management approach and its components	Page 33

GRI 400	GRI 400 SOCIAL STANDARDS SERIES	
	GRI 401 Employment, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 36
	GRI 403 Occupational Health and Safety, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 42
	GRI 404 Training and Education, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 40
	GRI 405 Diversity and Equal Opportunity, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 38
	GRI 406 Non-Discrimination, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 39
	GRI 412 Human Rights Assessment, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 39
	GRI 414 Supplier Social Assessment, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 33
	GRI 418 Customer Privacy, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 34
	GRI 419 Socioeconomic Compliance, 2016	
	103-1 Explanation of the material topics and their boundaries	Pages 21-22
	103-2 The management approach and its components	Page 12

#### GRI 200-300-400 TOPIC SPECIFIC STANDARDS 2016

		Location of Disclosure
	GRI 200 ECONOMIC STANDARDS SERIES	
	GRI 201 Economic Performance, 2016	
201-1	Direct economic value generated and distributed	Page 51
201-4	Financial assistance received from government	Page 51
	GRI 204 Procurement Practices, 2016	
204-1	Proportion of spending on local suppliers	Page 33
	GRI 205 Anti-Corruption, 2016	
205-2	Communication and training about anti-corruption policies and procedures	Page 12
	GRI 300 ENVIRONMENTAL STANDARDS SERIES	
	GRI 301 Materials, 2016	
301-1	Materials used by weight or volume	Page 45
301-2	Recycled input materials used	Page 46
	GRI 302 Energy, 2016	
302-1	Energy consumption within the organization	Page 55
302-5	Reductions in energy requirements of products and services	Page 55
	GRI 303 Water, 2016	
303-1	Water withdrawal by source	Page 55
303-3	Water recycled and reused	Page 55
	GRI 304 Biodiversity, 2016	
304-1	Operational sites adjacent to protected areas	Page 50
	and areas of high biodiversity value	
	GRI 305 Emissions, 2016	
305-1	Direct (Scope 1) GHG emissions	Page 47
	GRI 306 Effluents and Waste, 2016	
306-2	Waste by type and disposal method	Page 54
	GRI 308 Supplier Environmental Assessment, 2016	
308-1	New suppliers that were screened using environmental criteria	Page 33

	GRI 400 SOCIAL STANDARDS SERIES	
	GRI 401 Employment, 2016	
401-1	New employee hires and employee turnover	Page 53
401-2	Benefits provided to full-time employees that are not	Page 36
	provided to part-time employees	
401-3	Parental leave	Page 36
	GRI 403 Occupational Health and Safety, 2016	
403-1	Workers representation in formal joint management-worker health and	Page 42
	safety committees	
403-2	Types and rates of injury, occupational diseases, lost days, and	Page 53
	absenteeism, fatalities	
	GRI 404 Training and Education, 2016	
404-1	Average hours of training per year per employee	Page 53
404-2	Programs for upgrading employee skills and transition assistance programs	Page 41
404-3	Percentage of employees receiving regular performance	Page 36
	and career development reviews	
	GRI 405 Diversity and Equal Opportunity, 2016	
405-1	Diversity of governance bodies and employees	Page 38
	GRI 412 Human Rights Assessment, 2016	
412-2	Employee training on human rights policies or procedures	Page 39
	GRI 414 Supplier Social Assessment, 2016	
308-1	New suppliers that were screened using social criteria	Page 33
	GRI 418 Customer Privacy, 2016	
418-1	Complaints concerning breaches of customer privacy	Page 34
	and losses of customer data	
	GRI 419 Socioeconomic Compliance, 2016	
419-1	Non-compliance with laws and regulations in the social and economic area	Page 12

## CONTACTS

#### **HEAD OFFICE**

Alikahya Fatih Mahallesi Sanayi Caddesi No:90 41310 Izmit/Kocaeli Tel: +90 262 316 70 00 Fax: +90 262 316 70 70

#### COMPOSITE TECHNOLOGIES CENTER OF EXCELLENCE

Sanayi Mahallesi Teknopark Bulvarı No:1/1B 34906 Pendik / Istanbul P: + 90 216 300 10 00

#### EUROPE, MIDDLE EAST and AFRICA

Turkey - Kordsa Teknik Tekstil A.Ş. Alikahya Fatih Mahallesi Sanayi Caddesi No:90 41310 Izmit/Kocaeli Tel: +90 262 316 70 00 Fax: +90 262 316 70 70

#### **NORTH AMERICA**

USA - Chattanooga Kordsa Inc. 4501 North Access Road Chattanooga, TN 37415-9990 Tel: + 1 423 643 8300 Fax: + 1 423 643 2726 USA - Laurel Hill Kordsa Inc. 17780 Armstrong Road Laurel Hill, NC 28351 Tel: + 1 910 462 2051 Fax: + 1 910 462 5040

#### SOUTH AMERICA

Brazil - Kordsa Brazil S.A. Rua Eteno, No 3832 Polo Industrial de Camaçari Camacari, Bahia/Brazil GSM: 42810-000 Tel: + 55 71 2104-4500 Fax: + 55 71 2104-4701

#### **ASIA PACIFIC**

Indonesia - PT Indo Kordsa Tbk PT Indo Kordsa Polyester JI. Pahlawan, Desa Karang Asem Timur, Citeureup, Bogor 16810 Tel: + 62 21 875 21 15 Fax: + 62 21 875 39 27

Thailand - Thai Indo Kordsa Co. Ltd. Rojana Industrial Park, 1/61 Moo 5 Khanham Subdistrict, Uthai District Ayutthaya 13210 Tel: + 66 35 330 221 to 9 Fax: + 66 35 330 230

China - Sales and Marketing Office Room 1601-8, No. 688 Nanjing West Road Shanghai

#### CONTACT INFORMATION FOR THE REPORT

Yoga Mardiansyah, Global OHS, Environment and Sustainability Manager Yoga.Mardiansyah@kordsa.com Nevra Aydoğan, Brand and Corporate Communication Manager Nevra.Aydogan@kordsa.com

https://www.kordsa.com http://reinforcer.com/en/ https://www.facebook.com/Kordsa/ facebook: @Kordsa https://twitter.com/KordsaOfficial?lang=en Twitter: @KordsaOfficial https://www.instagram.com/kordsaofficial/ Instagram: @kordsaofficial https://plus.google.com/+kordsaofficial Google+: @kordsaofficial

#### SUSTAINABILITY AND REPORTING CONSULTANT

SERCOM Consulting Elif Özkul Gökmen elif@sercomconsulting.com T. +90 533 648 07 40 www.sercomconsulting.com

#### **GRAPHIC DESIGN**

Ulaş Uğur Tasarım Hizmetleri ve Ürünleri posta@ulasugur.com T. +90 533 357 23 35 www.ulasugur.com

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