

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Established in 1973 as a subsidiary of Sabancı Holding, **Kordsa** is a global player in the tire and construction reinforcement as well as composite technologies markets and the leading manufacturer of industrial nylon and polyester yarn, tire cord fabric and single end cord. The success story started in İzmit-Turkey in 1973 with Sabancı Holding's tire cord manufacturing plant investment. Through the years, **Kordsa** became the market leader in Turkey and accumulated great know-how on reinforcement materials. **Kordsa** now operates in 5 countries, namely, Turkey, Brazil, Indonesia, Thailand and the US with 4,351 reinforcers at its 12 production facilities. 2 of these production facilities have also R&D activities. **Kordsa** started 28 new R&D projects in the reporting year. These projects focus on issues like: reducing rolling resistance, eco-design, chemical recycling, reducing the weight of products, reducing water pollution and GHG emissions.

Kordsa provides high quality service and end to end solutions with a high level of technical competency. The main objective of the company is to "**progress with innovative value-added technologies**" by continuously investing in its employees and customers. Worldwide the company is the acclaimed holder of "**The Reinforcer**" title, thanks to its market leader position, its strong global footprint, its technological leadership and its experience on reinforcement.

"Today, **Kordsa**, whose story started in Turkey, spread on the whole world with its products. Every one in three automobile tires and every two in three aircraft tires are globally reinforced by **Kordsa**."

Kordsa aims to create sustainable value for all its key stakeholders and the society by offering high value-added innovative reinforcement solutions to its customers, with a mission to "**Reinforce Life**."

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.

Brazil
Indonesia
Thailand
Turkey
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	TRAKORDS9182

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	CEO has the ultimate overall responsibility at all terms including climate change-related issues, some of the climate-change related responsibilities of the CEO are as follows: - Reviewing and guiding climate-related strategies - Identification of targets and approval and financing of projects that will lead the way to achieving the climate targets. - Ensuring the company performs within the limits of the pre-determined energy and water management goals - Management of climate-related risks and opportunities. During the reporting year, our CEO has led many climate-change related decisions, one of them being the approval of a renewable energy (Solar PV) investment in our Indonesia and Thailand plants. Another decision led by our CEO was to send a commitment letter to SBTi and start working on our near and long-term science-based targets that are compatible with 1.5°C Scenarios.
Board-level committee	In our organization chart, our Executive Committee, which is named as Executive Leadership Team, is responsible for making decisions on how to take action on climate related issues. The Kordsa Executive Leadership Team (ELT) is chaired by the CEO and consists of Regional COO's who are in charge of plant operations, Chief Finance and Supply Chain Officer, Composites COO, Chief Human Resources, Legal and Communication Officer, Chief Global Sales and Market Development Officer and Chief Technology Officer Some of the climate-related responsibilities of ELT are: - Application of climate-related strategies - Monitoring targets and performance - Assessing and managing climate-related risks and opportunities. In 2021 one of the major climate-related decisions approved by our ELT is expansion of the Scope 3 calculations to include our Composite raw materials.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The Board of Directors, our supreme governing body, supervises performance on the sustainability priorities at Kordsa. The Kordsa Executive Leadership Team (ELT) is chaired by the CEO and consists of Regional COO's who are in charge of plant operations, Chief Finance and Supply Chain Officer, Composites COO, Chief Human Resources, Legal and Communication Officer, Chief Global Sales and Market Development Officer and Chief Technology Officer. ELT is responsible for plant operations and sets targets for sustainability focus areas determined biennially within the company and revises them when necessary. ELT quarterly discusses and approves action plans based on reported monthly Business Process Review outcomes. This quarterly ELT reviews not only include Kordsa's progress against set targets (including climate-related energy consumption targets and GHG emission reduction targets) but also the risk assessment process outcomes (climate-related issues being covered under various risk types such as production and legal risks).

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	We assess the competence of our Board Members using their CV's and previous experiences. According to this assessment, our HR department prepares a Board Competence Matrix, in which the competence of the whole board is assessed on pre-identified topics. One of these topics is ESG, which includes competence on all environmental issues including climate change and water security. Our board has the highest competence score on ESG related issues with 86% of the board members scoring as competent on ESG matters.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Operating Officer (COO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Financial Officer (CFO) <i>At Kordsa this position is named as: "Chief Finance and Supply Chain Officer"</i>	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Risk committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other, please specify (Head of Sustainability)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Other, please specify (Regional Sustainability Teams)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Environmental, Health, and Safety manager	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Energy manager	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

EMEA COO is Kordsa's Global Sustainability Sponsor. He is responsible for Kordsa's decarbonization roadmap. All of the decarbonization related projects like LCA's, GHG emission reduction projects, target setting, SBTi commitments are realized under his direct ownership and guidance.

EMEA COO is also a member of the Executive Leadership Team (ELT) and he is appointed by Kordsa's CEO as the global sponsor of sustainability which shows that decarbonization journey of Kordsa is embraced at the highest level of management. In 2021, The Corporate Communication and Sustainability Department was split with a new organizational structure, Sustainability Department started to function as a single department. Head of Sustainability (who reports to the BoD and CEO), leads the Sustainability Department and Regional Sustainability Team (RST). Head of Sustainability ensures the coordination between departments & senior management to achieve the relevant goals while coordinating the preparation of the annual sustainability performance report. The Sustainability Department located at the headquarters works in harmony with the regional sustainability team who are located at the different factories in five countries. In 2020 also Sustainability Working Groups were structured. Sustainability Working Groups **support the implementation of employment, production, products, procurement, and social responsibility projects in line with the company's sustainability strategy.** Sustainable Employment, Sustainable Production, Sustainable Products, Sustainable Supply Chain and Community Development working groups started to design the programs and projects of the next five years starting from 2020.

Regional Sustainability Team (RST) consist of sustainability specialists (SS), some of whom are Safety, Health and Environment executives at their relevant Kordsa plants, who are permanent members of the RST. To achieve the climate-related targets envisaged as part of the company's strategic plans, performance indicators were defined and one of the SS's responsibilities is to monitor them. Another responsibility is to ensure the implementation of the planned projects that will help reach the targets by following them with the relevant regional departments.

SS's track and report sustainability performance indicators for their regions. These reports include Kordsa's sustainability performance indicators. SS's also create Quarterly Sustainability Performance Tracking Reports, which include tracking and evaluations towards achieving the targets, & are submitted to senior management every three months.

Monthly meetings are held among each site's **Energy Managers** to discuss energy management activities, status and outcomes as well as potential improvement measures to be implemented. As part of Environment, Health and Safety activities, all operational and safety related climate change issues are discussed at weekly Site **SHE (HSE) Manager** Meetings which is held with the participation of Global SHE (EHS) Manager periodically once a month. During these meetings, climate-related impacts that may affect the business continuity at site level is among the main discussion topics.

While the above-mentioned roles have active assessment and management role regarding climate-related issues, there is also a standard risk management process as well as business continuity management process which are under the sole leadership of the **CFO** and the CEO respectively. Climate-related issues are reviewed by Early Risk Detection Committee. (which consists of 4 Board Members, 2 of whom are independent Board Members), under all risk types with different dimensions such as loss of revenue under financial risks, loss of market share due to inability to meet customer expectations under strategic risks, production & supply chain disruption under production risks, inability to meet regulatory requirements under compliance risks, loss of brand credibility as well as customers due to inaction on climate change under brand image risks & all environmental aspects under environment, security, health and safety risks.

The sustainability targets, defined as strategic initiatives of Kordsa are monitored over performance indicators. These targets are extended towards all individual targets of the executive team starting from the general manager. Sustainability performance is included in the bonus system through identification and integration to Kordsa Variable Bonus System Based on Performance.

At Kordsa, we create implementation and action plans in line with our short and long-term goals and make them public through our reports.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	The management of climate-related issues are included in the KPI's of key decision-makers.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	The CEO is ultimately responsible of all climate-related issues on a company level. Achievement of business objectives including meeting emission reduction targets, OPEX optimization due to energy reduction etc. Any improvement measures that are proposed by the operational team and approved by the CEO (under ELT) will affect the Company Scorecard, meaning it will have positive impact. As a result of achievement of before-mentioned measures, the CEO fulfils his/her targets and becomes entitled to a monetary reward in the form of an enhanced salary and a bonus.
Chief Operating Officer (COO)	Monetary reward	Emissions reduction target	The COO's of each region are ultimately responsible of all climate-related issues on regional level. Achievement of business objectives including emission reduction targets, OPEX optimization due to energy reduction etc. Each region/site COO has a target to contribute to Kordsa's overall GHG reduction target, which is 46.2 % reduction of Scope 1 & 2 GHG emissions until 2030 with respect to 2019 which is our base year. This target is also included in their KPI's. If they meet or exceed this target, they become entitled to a monetary reward in the form of an enhanced salary and a bonus.
Chief Procurement Officer (CPO)	Monetary reward	Supply chain engagement	The position that equals to CPO in our organizational chart is our Chief Finance and Supply Chain Officer. Our CPO has supply chain engagement related targets which is also included in her KPIs. If the target is met, our CPO becomes entitled to a monetary reward in the form of an enhanced salary and a bonus.
Environment/Sustainability manager	Monetary reward	Emissions reduction target	The position that equals to Environment/Sustainability Manager in our Organizational Chart is our Head of Sustainability Kordsa has a global level Sustainability Roadmap consisting of the Company's medium and long-term sustainability targets and commitments including GHG emissions management, responsible use of raw materials, recycling targets, supply chain sustainability assessment, awareness raising activities on climate-related issues. Head of Sustainability has individual targets in achieving each target in the Sustainability Roadmap. As a result of realization of these targets, Head of Sustainability receives a monetary reward.
All employees	Monetary reward	Efficiency project	Kordsa monitors its performance through progress against annually set targets. All employees are encouraged to share their innovative ideas that can contribute and lead to the achievement of these annual targets. When the Company meets with annually set targets, this affects the Company scorecard positively and therefore results in a monetary award for all employees in the form of an additional bonus. In addition to the performance related monetary reward, Kordsa has a program called Kordsa All Stars. It fosters energy efficiency and sustainability projects. All employees are entitled to a monetary reward if their project offer is deemed worthy. In 2021, a total of 135 applications were received globally, 41 of which have been announced as winners and deemed their monetary rewards.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	Kordsa sets annual corporate targets including climate related aspects such as energy and emission efficiency as part of its short-term business objectives
Medium-term	1	5	Mid-term and relatively larger commitments/projects are managed with a dedicated CAPEX X+ 5 budget. This budget includes investments or initiatives to be realized as part of improving climate-related performance as well as risk and opportunity management
Long-term	5	35	Kordsa also has long-term strategic plan on sustainability and climate-related issues in line with the overall company objectives. The long-term business objectives are set starting from a CAPEX X+5 horizon.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

As defined in Kordsa's internal standard operating procedure (SOP) each risk register is assigned with a score for assessment and prioritization purposes. Risk scores are calculated through their probabilities and impact levels. Probability is calculated based on the likelihood of occurrence within one year. For impact level calculation, quantitative (financial, business continuity) and/or qualitative criteria (reputational, human resources, legal and environment) are considered. Thresholds are defined for each evaluation criteria. So, all categories become quantifiable for risk score calculation. Risk score is derived from the multiplication of the probability score and the highest impact score of a risk.

The description for each quantifiable indicator including their quantifiable thresholds is as below. Kordsa defines substantive financial or strategic impact if that corresponding impact falls within high or very high categories in Kordsa's risk impact scale as defined in SOP. The impact level of the risk or opportunity is identified to be substantive (high or very high impact) if:

1. **Finance:** Within one-year period more than 1% deviation from the budgeted EBITDA (For 2021 this ratio corresponds to 1,500,000 USD), or

2. **Company Reputation:** Long-term campaign against the Company in the national media, Damage to relationships to an extent that could lead to termination of strategic alliances with some stakeholders,

Damage to relations with local political authority and local people, Long-term loss of more than one customer with an effect between 1 million USDs and 5 million USDs or at least one customer with an effect between 5 million USDs and 10 million USDs on the profitability of the company

3. **People:** Accident resulting in loss of life or serious injury with permanent damage

Many key personnel and / or many personnel from more than one unit collectively leave work in a short period of time,

15-20% negative change in employee satisfaction survey in comparison with the previous period,

Staff turnover rate is between 9% and 12%, or

4. **Business Continuity:** Between 1 and 2 weeks business interruption at a production line, or

5. **Legal:** Facing a legal sanction that may cause the company to suspend at least one activity for an indefinite period,

Facing a very high penal sanction (e.g., a fine of between 2 and 5 million USDs); or,

6. **Environment:** Long-term environmental damage (for example, the occurrence of water, air, or soil pollution, in 25 km² area including the plant area which can be cleaned only with emergency response and continuous control works) spread over a large geographical area around the plant

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Climate-related risk management process is integrated into multi-disciplinary company-wide risk management process of Kordsa which consists of identification, prioritization, control, monitoring and reporting steps which are explicitly defined in Kordsa's Standard Operating Procedure (SOP). This SOP is prepared by Global Risk Management (GRM) Department located under CFO. Kordsa has adopted an "All-Risk" methodology focusing on all possible risk factors that may have impact on any stakeholder locally or globally. From single supplier and customer to global supply-chain trends and customer purchasing behaviours, risk management focuses on all areas that may have an impact on its upstream, direct operations or downstream value chains. The methodology adopted by Kordsa covers all time horizons (short, medium and long terms) as each risk register is assigned with a probability score. There are 5 degrees of probability score as per its frequency of occurrence starting with point-1 (very rare - It can happen only in very exceptional cases and / or there are only few and very rare incidents having happened in similar companies) to point-5 (very likely - There are many actual event histories. It is possible to see an event in a few months. In most cases it is expected to occur) GRM department also applies scenario modelling, monte carlo analysis and calculates value at risk (VaR) for risks with substantive financial or strategic impact on Kordsa's business. There is also a commercial governance, risk and compliance (GRC) application in place covering all Kordsa entities to register all risk items in a digital platform. Risk identification is performed during interviews or periodic workshops held with each Business Unit Leader (BUL). Risks are identified by a combination of a bottom-up approach and a top-down approach. In the bottom-up approach, the entity risk officer arranges an interview with risk owners (mainly managers of main departments and business units of the entity). The risk list formed reflects their point of view on the risks effecting their entity. In the top-down approach, the GRM department arranges an interview with COO's to learn their point of view on the list of risks effecting their entity and make necessary adjustments on the entity's risk inventory, if needed. Risks can also be identified through key risk indicators and audit findings. All identified risks are recorded to the GRC application. Risk assessment is done by assigning probability and impact scores for each risk register as defined in SOP. Impacts with a degree of "High" or "Very High" are classified as substantive financial/strategic impact. Probability is calculated based on the likelihood of occurrence within one year. At this GRC application a risk score is calculated through multiplication of the probability and impact scales. Additionally, scenario modelling and monte carlo simulations are applied for prioritized risks. Kordsa mostly derives the scenarios based on professional judgement of GRM Department & BULs. Alternative scenarios are studied with probabilities of P5, P50 and P95 each having different financial impact. Later, monte carlo analysis is applied to generate a single simulated result. The result of the monte carlo analysis along with impact levels are also registered in GRC Application. Since Kordsa is able to review the risks under different impact categories, climate risk as being a headline may have various impact effecting HSE, Business Continuity, Legal Compliance or Reputation. The outcomes of the assessment (the risks with substantive financial/strategic impact) are shared with the risk owners from related Business Units. Risk owners are responsible for informing internal decision makers and taking appropriate risk control measures for these risks. It is a critical step to inform decision makers across the organization, so they can also track the recent status of critical risk items regularly and allow necessary actions are taken to take the risk under control. Risk control measures can include Avoiding, Mitigating, Transferring, Accepting. As per Company policy, risks with substantive financial or strategic impact on business, are expected to be reduced (mitigated/avoided/transferred) by risk owner(RO). RO is responsible for determining the control actions, calculating the required resources to implement that action & for assigning them to the action owners. The outcomes of both assessment and action planning are aligned with related functions of the Company. For instance, if a long-term action is required, finance department is informed to allocate sufficient resources for upcoming years. Kordsa is always actively communicating the identified risks with its contacts for both upstream and downstream operations. If a substantial risk is identified in one of the key suppliers (upstream), Procurement Department reaches out to the supplier and request additional information regarding their action planning to control that risk. Same methodology also applies for downstream operations. Sales teams are actively communicating actions taken against critical risks with customers. Regular monitoring ensures that risk levels are within Kordsa's already defined risk threshold and the risk controls are run in the desired manner. Risk monitoring activities mainly consist of following up risk mitigation actions and key risk indicators. KRI reports are documented in GRC tool and EDRC reports. The risks & relevant risk mitigating actions are followed up for any updates, in monthly basis. As per the outcome of that regular monitoring, ROs can decide taking further action for necessary critical risk items.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	RELEVANCE: Operating in wide range of geographies, Kordsa is subject to various local regulations in place in the country that it operates. Therefore, Kordsa is directly affected by current as well as emerging regulations covering climate-related issues such as energy usage and GHG emissions reporting and reduction targets. Regulation is a subcategory under legal that is identified in Kordsa's SOP. Compliance measures to these types of regulations can result in an increase of direct and indirect operational costs. As part of the company-wide risk assessment, current regulations-related risks are assessed covering all countries that Kordsa operates. EXAMPLE: Kordsa is under reporting obligation as part of "The Regulation on Monitoring of GHG Emissions" which came into force in Turkey in 2014. According to this regulation, facilities operating in emissions intensive sectors must monitor their emissions and annually report the verified emissions to the Ministry of Environment and Urbanisation (MoEU). Kordsa has been reporting its emissions from Izmit Facility, and so far, it is in full compliance with the requirements. As mentioned in the relevance, non-compliance with this regulation can result in increased cost with potential penalties. To manage this risk, consultancy service is received from a competent party and external verification is obtained in line with the requirements. Although this risk is registered in Kordsa's GRC, it is not assessed to have substantive impacts, so, it is not reported under section 2.3a of this report.
Emerging regulation	Relevant, always included	RELEVANCE: Similar to current regulations in place, Kordsa is prone to local or global emerging regulations at any time. Operating in wide range of geographies, local authorities may come up with an emerging regulation as per country needs or there can exist a global emerging regulation issued by global associations focusing on climate-related issues such as energy usage and GHG emissions reporting and reduction targets. As part of the company-wide risk assessment, emerging regulations-related risks are also assessed for all countries that Kordsa operates in. Compliance to any emerging regulation can result in an increase of direct and indirect operational costs. EXAMPLE: In Turkey, An important emerging regulation is the EU Carbon Border Adjustment (CBA), which is simply an extension of intra EU-ETS on the global scale. The EU, which so far focuses on intra-EU emissions, will extend its carbon pricing system to its partners through the CBA mechanism to level off the cost disadvantage (created by the EU carbon regulations) of intra-EU producers and to secure emission reduction globally. Implementation of the EU CBA, will directly impact Kordsa's operational expenses. Since this risk is assessed to have substantial impact, it is reported as Risk 2 under section 2.3a of this report. Another important emerging regulation for our operations in Turkey is the efforts of Turkish regulatory office to implement a Carbon Pricing Mechanism, a Turkish ETS scheme similar to EU ETS. On a global scale, EU focuses on intra EU emissions and considers extending its carbon pricing system to its partners to level off the cost disadvantage of intra EU producers and to secure emission reduction globally. It is expected that in short to medium term, Turkish regulators will give a cap to the emission intensive sectors to control and reduce their emissions. A draft climate regulation was published in the end of 2020 signaling an upcoming ETS system in Turkey. Implementation of an ETS system in Turkey will directly impact Kordsa's operational expenses. Since this risk is assessed to have substantial impact, it is reported as Risk 2 under section 2.3a of this report.
Technology	Relevant, always included	RELEVANCE: To stay competitive and meet our clients demands we almost always rely on technology and our R&D activities. Technological developments are always included in our risk assessments. If Kordsa fails to meet clients' demands on producing lightweight, technologically advanced and environmentally friendly fibers, it may lose a considerable amount of clients. Working closely with R&D and IT technology departments, technology related risks are monitored at all times. With its historical strong background in R&D, technology provides many opportunities for Kordsa as well. The possible success of ongoing sustainability related R&D projects present great opportunities to be one step ahead of the competition. EXAMPLE: For example, the increasing demand of reducing the rolling resistance (RR) of tires is an important subject and various R&D projects are ongoing on this matter. As global tire industry is constantly working to reduce the RR, producing one of the main components of a tire, if Kordsa doesn't work to make its product technologically better, it may lose customers. With its proven success in R&D history and with ongoing projects, this is a risk which is also identified as an opportunity. Having substantial impact, this item is reported as Opportunity 3 under section 2.4a of this report.
Legal	Relevant, always included	RELEVANCE: Operating in wide range of geographies, Kordsa is subject to various Countries' laws that differs from one to another. Legal is one of the 6 impact categories that is identified in Kordsa's SOP. Kordsa monitors the development of litigation in all geographies that company operates. Kordsa always takes into account legal aspects concerning the implications of its activities, including those related to climate change. EXAMPLE: Any potential non-compliance to ESG related regulation may subject to penalty payment. In case such an incident occurs and Kordsa legal teams find this case disputable, there can be a legal case between Kordsa and the authorities. For instance, State of California, where Kordsa has multiple composite operations, applicier stricter ESG regulations than most of the other states and countries. Kordsa follows all the regulations very carefully and they have not been faced a legal case so far.
Market	Relevant, always included	RELEVANCE: Kordsa and its subsidiaries operate in a highly competitive industry with a broad geographical presence. Therefore, Kordsa keeps an eye on market developments all the time to stay ahead of its competitors. Market risks mainly includes risks affecting Kordsa's revenue, market share or customer relationship management. Any market related risk may cause significant deviations for Kordsa's sales or procurement strategy which directly effects its operating costs. EXAMPLE: Low carbon emission products, using recycled materials, sustainable production methodologies are couple examples that market focuses these days. The global customers are preferring to do business with suppliers having more environmentally friendly procurement and manufacturing strategies. Changes in the market can also be sources of opportunity, for example, as the electric-powered cars become more common, it is a necessity to produce lighter batteries. Kordsa's lightweight and durable carbon-fiber fabrics, which are used as a necessary component while producing battery enclosures, are already in high demand. We are expecting the composite business to grow more in the not-so distant future.
Reputation	Relevant, always included	RELEVANCE: Reputation is one of the 6 main impact categories assessed Kordsa's SOP. As Kordsa is a global industry leader it is expected from all stakeholders to act proactively on climate related challenges. Moreover, 28.89% of Kordsa's shares are traded publicly on BORSA Istanbul, and therefore any incidents about climate-related issues causing bad reputation can result in decreased share prices. As part of inclusion of this risk in the assessment, Kordsa's Investor Relations and Corporate Communication Department is working towards meeting expectations of investors and other stakeholders with regards to climate change. EXAMPLE: Kordsa's tire-reinforcement clients have ambitions emission reduction targets, some of them have even announced their Net-Zero targets, which means they have already committed to reduce their supply chain emissions as well as their Scope 1 and 2 emissions. Having ambitious targets, Kordsa's clients tend to get more ambitious with their expectations from suppliers and their products, if Kordsa fails to meet their demands, it may lose a significant amount of business. Since this risk is assessed to have substantial impact, it is reported as Risk 3 under section 2.3a of this report.
Acute physical	Relevant, always included	RELEVANCE: Climate-related acute physical risks like storms, floods, extreme weather conditions may have significant impact on business continuity. Such climate related events may have a direct impact on Kordsa's direct operations (production), indirect operations (mainly supply chain) or both. As Kordsa operates in 5 countries in very different geographies, each Kordsa site individually assesses acute as well as chronic physical risks that may be caused by climate change covering the direct operations. Necessary mitigation actions are taken if needed to become more resilient against physical risks. As for the indirect operations, diversification of suppliers' method is used to have an alternative supplier ready in case of a disruption. EXAMPLE: As an example of acute physical risk, Kordsa's production facility in Indonesia, is prone to flood risk as the geography of the country triggers flash floods and the climate is tropical with significant rainfall in most months of the year. Therefore, in cases of extreme precipitation, flooding may occur and can damage the facility and cause production disruption. Since this risk is assessed to have substantial impact, it is reported as Risk 1 under section 2.3a of this report.
Chronic physical	Relevant, always included	RELEVANCE: If not well managed, climate change is expected to cause drastic chronic physical impacts. It is important for Kordsa to understand chronic trends that may impact the facilities globally over time. Chronic physical conditions such as increased temperature and humidity or significant drought are factored in climate-related risk assessment because processes and the product quality, hence the profitability could be directly affected by these changes. EXAMPLE: At fabric production process line, indoor climate control is important, because the dipping solution is sensitive to particles in the air as well as humidity level and temperature. Therefore, we implement a climate control management system to maintain the process indoor ambient conditions at optimum levels. However, if mean temperatures rise and humidity levels change accordingly, this may cause our climate control management system to malfunction according to the severity of climate conditions, the break response time to restart the control system may be extended, causing production disruption and therefore revenue loss.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Kordsa's production facility in Indonesia, is prone to flood risk as the geography of the country triggers flash floods and the climate is tropical with significant rainfall in most months of the year. The probability that precipitation will be observed at this location varies throughout the year, the driest month is July, with 216 mm of rainfall. Most precipitation falls in January, with an average of 442 mm. The warmest month of the year is September, with an average temperature of 25.6 °C. With changing climate patterns the rain clouds build faster than historically observed and rainfalls occur much faster which causes more significant floods than ever realized. Additionally, apart from heavy rain season, floods can also occur in relatively calm months. Kordsa premises are located inland, far away from the coast. So, flood exposure from the rising tide is non-existence. But the premises are surrounded on the left by bodies of Cikeas river. The premises are situated five to seven meters above the water level so exposure from flash flood is considered to be expected. If flooding occurs in that production facility, some of the assets may be impaired due to slime covering them. Kordsa may need to reduce or stop production for a certain period of time until operation and maintenance teams complete all the recovery and cleaning activities within the facility. Kordsa may also need to wait for a new set of machines, equipment or raw materials (if any damage occurs to them) to arrive before starting the production again. Additionally, Kordsa may face an increase in insurance premiums for upcoming renewals, if the relevant insurance policies are triggered due to the high magnitude of loss claim.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

21000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact figure was determined from the scenario analysis. Based on this scenario a flash flood occurs after significant rainfall during wet season. It has been assumed that about 13% of the building, 30% of the equipment and 23% of the stocks would be damaged and business interruption is expected for 12 weeks to recover fully from the flooding. The total value for 2021 was 472M USD including the building (31M USD), machinery & equipment (246M USD), stocks (47M USD) and revenue (147M USD). $31 * 13\% = 4M$ USD $246 * 30\% = 74M$ USD $47 * 23\% = 11M$ USD Total property damage value is calculated as 89M USD. Kordsa has an insurance policy covering the facility up to full value. However, considering the deductibles (10% of the total claim) and time excess (30 days) portion of the policy, $89 * 10\% = 9M$ USD $147 * (30/365) = 12M$ USD 21M USD of financial impact remains due to flood.

Cost of response to risk

2250000

Description of response and explanation of cost calculation

Our response strategy is identified under 4 items which are all reviewed as equally important in managing this risk. 1st item is the our insurance policy.. This policy provides flood coverage for our assets (building, machinery, equipment, stocks) including business interruption each year up to their full value. The cost of 1st item for 2021 is 2.2M USD with coverage terms from Jan 1st to Dec 31st. 2nd item is the consultancy received each year from experts of insurance companies to identify any improvement areas regarding flood risk. These recommendations are always analysed by Kordsa engineers & for approved items, improvement projects are implemented. There is no additional cost for the 2nd item since its already included in 1st item. Insurance companies don't charge separately for this service but include it in the premiums. Last engineering visit was done in Dec 2021 & the report was received within the month. 3rd item is Kordsa's emergency action & business continuity plans studied for each of its facility in collaboration with Entity officers & Global Risk Management Department. These plans are reviewed & updated each year. As indicated in plans, task forces are built, necessary personnel are assigned with certain roles & backup plans are determined in case flood occurs. These plans are handled & aduted internally& there is no cost of applying these as well. Latest review a& audit was completed in June 2021. For the last item, Kordsa performs various efficiency projects each year to improve site conditions. These projects vary in size and duration but mostly they are completed within one year. There are many improvements completed in the premises at past. Since those were in place for a certain period, their cost is not included in this section. During 2021, 50k USD expenditure was done to improve monitoring & mitigating measures. There are 5 sump pits built in the lowest areas of the premises equipped with at least two units of automatic pumps, when water reaches a certain level, it is automatically discharged.. Manually operated gate valves are provided to prevent back flow from Cikeas river. Water level detection system is also provided in the Cikeas river & accessible from the main guard post. All these projects are implemented in less than 3 months and completed within 2021. In total, all these response strategies add up to 2.25M USD cost.

Comment**Identifier**

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms
---------------------	---------------------------

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Our plant in Izmit, Turkey is under the scope of Turkish Monitoring, Reporting and Verification (MRV) regulation. This regulation was an adoption of the EU MRV of GHG Emissions which is the basis of the EU Emissions Trading Scheme (EU ETS) where the emission intensive sectors are given an emission cap to control and reduce their emissions. As Turkey is following a similar path, there is a very high probability that additional requirements will be implemented in medium term. A draft climate regulation was also published in the end of 2020 under the Partnership for Market Readiness Program of The World Bank, and this document also signals an upcoming ETS system in Turkey. Another emerging regulation that poses a great risk for is the EU Carbon Border Adjustment (CBA). As we export some of our production to EU countries, a taxation on our products based on carbon content will definitely increase the cost of our products thus reducing either our profitability or our competitive advantages.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

5150000

Potential financial impact figure – maximum (currency)

7490000

Explanation of financial impact figure

The potential financial impact figure was estimated based on several different scenarios and price projections, details of which are given below: For the implementation of an ETS system in Turkey, based on recent simulation studies performed under the World Bank's PMR program, the scenarios cap the emissions at 80% and include a free allocation of 50% of this capped amount. Which means we would either have to purchase or reduce approximately 60% of our GHG emissions under the scope of a potential Turkish ETS. In 2021 our verified GHG emissions under Turkish MRV program was 48,865 tCO2e. 60% of which equals to 29,319 tons of CO2e. The min. price we use for Turkish ETS is 90 USD and this price is taken from the highest bidding price seen in 2021 in EU-EUA auctions and the max. price we use is 112.5 USD which is considered as a buffer for a 25% increase of this unit price. Using these prices, the min impact is 2,638,710 USD and the max. impact is calculated as 3,298,387 USD. Similar to last year, bigger financial impact lies on the EU CBA mechanism. A potential tax between 0.84% to 1.4% on revenues from products sold to EU may result in substantial operation cost. Considering 50% of our production in Turkey (out of 380M USD) and 2% of our production in Indonesia (out of 220M USD is exported to the EU, we are facing a potential risk between; Min: $(380 \times 0.5 + 220 \times 0.5) \times 0.84 = 2.52M$ USD Max: $(380 \times 0.5 + 220 \times 0.5) \times 1.4 = 4.2M$ USD Hence the total impacts will be between 5.15M USD and 7.49M USD $2.52M + 2.63M = 5.15M$ USD $4.2M + 3.29M = 7.49M$ USD

Cost of response to risk

3230000

Description of response and explanation of cost calculation

Measures taken to manage and prevent this risk includes various emission saving projects, consultancy and verification fees for GHG emissions reporting (MRV) as well as CDP reporting advisory. In 2021, Kordsa spent 2.8M USD for Plant in Turkey and 200k USD for the plant in Indonesia for improvement projects that will help reducing the gas emission. Singlehandedly in Turkey, Kordsa will spent 25k USD to construct a system and prevent the steam (800 kg/h) to be discharged into the atmosphere to be recovered as heat. Similarly, Indonesia plant will invest 35k USD for single project to enable saving on Natural Gas used in Dipping Unit. Additionally, there are multiple medium sized efficiency projects that resulted in emission saving for both plants. The cost of response includes the total fees paid for consultancy and verification services during the reporting year. These cost are actualized within the year as per agreements signed with consultants and membership organizations and the fees were paid as per the arrival of the receipts. The total cost of emission saving and efficiency projects for Turkey: 2.8 M USD The total cost of emission saving and efficiency projects for Indonesia: 200k M USD The consultancy cost of disclosure activities (CDP, Ecovadis):11,544 USD Verification fees:14,415 USD Total membership fees (for, NGOs and other sustainability related organizations: 5,090 UD As Kordsa has ambitious targets in reducing GHG emissions, every project Kordsa implements to reduce Scope 1 GHG emissions, will also be a measure to reduce the impact of this risk.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Reputation	Shifts in consumer preferences
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Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

Tire reinforcement products make up 85% of our business and Kordsa's clients in this line of work are the leading tire manufacturers which have very ambitious emission reduction targets. Some of the clients have even announced their Net-Zero targets, which means they have already committed to reduce their supply chain emissions as well as their Scope 1 and 2 emissions. Having ambitious targets, the clients tend to get more ambitious with their expectations from suppliers and their products. Additionally, one of Kordsa global tire customers requested Kordsa to fill a custom made questionnaire to assess the maturity of business continuity plans. Within this questionnaire, there are couple questions asking details of actions taken against the short term impact of climate change. 2 of Kordsa's main tire producer customers invite Kordsa to report to CDP Supply Chain programme, and in medium term, they may set a threshold performance score as a condition to collaborate with certain suppliers such as Kordsa. The potential risk is determined with the assumption that one of the global customers may change its purchasing behaviour and may direct some of its international demand to another supplier, a competitive to Kordsa.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

2800000

Potential financial impact figure – maximum (currency)

7000000

Explanation of financial impact figure

2-5% of the revenue coming from that global customer can be affected from Kordsa's inability to meet customer's demands to reach their expectation of achieving sustainability standards. Kordsa's global revenue in the reporting period was 888M USD and approximately 15% of the global revenue comes from the sales to a single global customer which is calculated around 140M USD. Directing 2-5% of its total demand to another supplier may result in below impacts; Minimum financial impact: $140 \times 2\% = 2.8\text{M USD}$ Maximum financial impact: $140 \times 5\% = 7\text{M USD}$

Cost of response to risk

84000

Description of response and explanation of cost calculation

Kordsa implements vigorous measures both in terms of managing climate change-related impacts and mitigate them and takes an active approach by communicating its climate-related performance on various leading platforms such as UN Global Compact, CDP, Ecovadis, sustainability reporting, EIRIS ESG rating through BIST Sustainability Index as well as active involvements as a member in leading NGOs and associations such as Turkish Business Council on Sustainable Development (SKD) and TUSIAD. The cost of management for this risk represents the total cost of reporting, advisory and membership fees paid in 2021 as part of Kordsa's effort to monitor, enhance and communicate its effort to remain as a responsible company. These costs are actualized within the year as per agreements signed with consultants and membership organizations and the fees were paid as per the arrival of the receipts. The consultancy cost of disclosure activities (CDP, Ecovadis): 11,544 USD Verification fees: 14,415 USD Total membership fees (for, NGOs and other sustainability related organizations): 5,090 USD Additionally, Kordsa invests in its corporate communications to announce its efforts to its customers and other stakeholders to maintain its reputation and secure its preferable position among customers. Last year Kordsa spent 53k USD for its marketing efforts of sustainability activities. In total: $11,544 + 14,415 + 5,090 = 31,049\text{ USD}$ was spent Moreover, Kordsa allocates approximately 2% of its budget in 2021 for its R&D each year. As of the end of 2021, Kordsa's patent portfolio has reached a total of 891 patent applications and there are 490 approved patent families. The intellectual property created by Kordsa with its new products and 677 international patent applications, reinforces its strong position among customers. As there are many different projects are ongoing in R&D, their budget has not been included in cost calculation at this section.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of recycling

Primary potential financial impact

Reduced direct costs

Company-specific description

As part of yarn production, Kordsa has a by-product called "Nylon 6.6" (NY66) chips, in the previous years, Kordsa was selling these scraps as a raw material for the engineering industry. Which posed an opportunity for Kordsa to find ways to further process this material to become a raw material for the industry. Recently however, the research and development team worked on how to use these scraps in Kordsa's own production, to produce nylon yarn and fabric, 20% of which is composed of recycled material. This new product was tested with recycled content, and the test results are very promising. As the tire industry has very high standards due to safety reasons, Kordsa has also submitted samples of this product to customers and positive feedback received from them. This opportunity has multiple benefits as reprocessing N66 chips not only helps reducing the waste generation but also helps to implement the basis of a circular economy by using the scrapsof production process as a raw material to produce nylon yarn with recycled content. This will in turn reduce the direct operating costs as Kordsa would need to purchase less raw materials. The recycled nylon yarns that were produced by Kordsa, has also been certified by Global Recycled Standard. Currently the recycled content in a tire is around 200 grams, if this product is approved by the industry, this product will add 20 grams more to this recycled content, increasing the recycled content in a tire by 10%.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

20% of the nylon yarn produced is composed of 20% recycled, 80% virgin chips. After receiving approval for this new recycled material, Kordsa would need to purchase 4% less virgin chips. (20%×20%=0.04). Kordsa annually spends 100 M USD for its virgin chip procurement. Which would have an impact of about 4,000,000 USD. This new, innovative and sustainable product will also present the opportunity to apply premium prices, as sustainability and climate change is one of the main focus areas of our customers, but this impact is not factored in financial impact calculations yet.

Cost to realize opportunity

271780

Strategy to realize opportunity and explanation of cost calculation

During the reporting period we have invested 271,780 USD on this R&D project. This investment includes trial production batches and necessary tests. This product is still being developed, and we are still investing in this project in order to bring it to perfection. The product is expected to become commercial by the end of 2022.

Comment**Identifier**

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Climate change and related impacts are becoming on the prioritized agenda of private sector, investors and customers representing the community. As the awareness is rising and the climate change-related impacts are becoming more visual, there is a shift in customer preferences towards more sustainable/low-carbon products with lower environmental impact. If well managed and met, the shift in customer preferences pose an opportunity for Kordsa to develop matching products and gain competitive advantage while increasing its share on the market. Products that need less water during production and products that cause less pollution will be preferred by companies who are paying attention to their carbon footprint. As an example, COKOON is the new environmentally friendly adhesive technology named after the cooperation of Continental; one of the world's top six tire producers and Kordsa; producer of tire reinforcement technologies, with the aim of developing an intermediary product, a dip solution to replace the standard dipping system used since 1930's. Kordsa had been working on this new technology since 2008 at its R&D Centre located in Izmit, Turkey. Continental also had been working on the development of a new eco-friendly dip technology. Both companies have already been collaborating for many years on various topics regarding tire technologies. Consequently, at a certain stage of development to apply and test the formula on tires; with their open-innovation approach and vision, Kordsa and Continental decided to join forces, share knowledge and make use of the diverse expertise of both parties in replacing the standard and traditional dip system, which contains resorcinol and formaldehyde; chemicals which might create health and environmental risks in case of misuse. According to the results of the current development status of COKOON, it is now possible to replace both resorcinol and formaldehyde by an environmentally friendly solution without sacrificing any safety or performance criteria of tires. COKOON can be used for all standard textile materials used in tires (PET, PA66, PA6, Rayon, Aramid, Hybrid). As a result of this technology, without these chemicals, the production process also reduces Kordsa's Scope 3 GHG emissions, which also results in the reduction of GHG emissions for companies that use these products as the carbon footprint of this product will be lower than its alternatives.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

6472000

Potential financial impact figure – maximum (currency)

32360000

Explanation of financial impact figure

The disclosed financial impact has been calculated based on an analysis that innovative products that have less carbon footprint will face an increasing demand from the market. That may increase Kordsa's sales volume by 5% to 7%. The given min. financial impact figure represents 5% of our global revenue (888 million USD) in the

reporting year (44.4 million USD). The max. financial impact figure represents 7% of our global revenue which equals to 62.16 Million USD.

Cost to realize opportunity

513376

Strategy to realize opportunity and explanation of cost calculation

Placing utmost importance with R&D activities and seeing those as one of the main contributors to business success to sustain operations in a rapidly changing environment, Kordsa dedicates an annual budget to develop products with better performance parameters and to a maximum extend low carbon/energy efficient/ eco-friendly. As a strategy to realize the above-mentioned opportunity, Kordsa has dedicated a budget for all of its R&D projects. This project was started in 2015 and above cost of 513,376 USD reflects the 2021 budget only for reducing rolling resistance projects.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

At Kordsa we are constantly working on R&D projects to advance our existing products and to create new products for emerging markets. The Composite Technologies Center Of Excellence serves as one of the very few integrated manufacturing centers of the world. At Composite Technologies Center of Excellence, we develop innovative intermediary products primarily for aerospace and automotive as well as sports, maritime industries and industrial applications. These R&D activities mainly focus on reducing the weight of the final product, which in turn reduces the fuel consumption and GHG emissions. As the GHG emission regulations are becoming stricter throughout the world, these new products will be more attractive for the buyers. The innovative and unique intermediate products and applications for composites technologies developed by Kordsa, presents an opportunity to increase our revenues through access to new and emerging markets. Some of our innovative projects include: • Developing a Prepreg to be used in composite trunk lids for public transport vehicles, which will reduce the weight of the vehicle, which in turn will reduce the fuel consumption • Developing a Hot-Melt Prepreg with self-bonding properties with metals for the production of metal composite hybrid components through compression molding. Since the prepreg material under development cures outside the autoclave, the energy consumption will be reduced, and thanks to the use of low-density prepreg instead of metal parts, carbon emissions will be lower in parallel to the reduced fuel consumption. • We are producing carbon fiber fabrics that are used in the battery enclosures of electric vehicles. This fabric reduces the final weight of the EV batteries, while increasing the durability of the enclosure. In parallel with its strategy of increasing its global market share and expanding its product range, Kordsa acquired two major players of the composite industry in the US, Fabric Development Inc. and Textile Products Inc. as well as San Diego-based Advanced Honeycomb Technologies in 2018, and in 2019 we have also acquired AXIOM. With these new acquisitions, Kordsa took a major step towards reinforcing its position in the North America.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

4200000

Potential financial impact figure – maximum (currency)

8300000

Explanation of financial impact figure

As a result of these investments and R&D activities, in the long-term we are analyzing a 5% to 10% increase in our revenues coming from the sales of our composite products. In 2021 Kordsa's revenue from the sales of our composite products was 83M USD. Therefore, the min potential financial impact figure represents the 5% (4.2 M USD) of the Composite Sales revenue, whereas the max. Financial impact figure represents 10% (8.3 M USD) of the revenue that was generated in 2021 through sales of our innovative composite products.

Cost to realize opportunity

75000000

Strategy to realize opportunity and explanation of cost calculation

In order to realize this opportunity, we are constantly investing on R&D. Our R&D budget for composite products in the year 2021 was 5 million USD. There are 28 major projects kicked-off by Kordsa R&D offices in 2021 and 4 of them are related to composite applications. The details of the project with their assigned cost are as below; New Generation Monofilament Fiber for Mining Applications (Non-Floating Fibers): 52k USD NANOSIS-3.1 Development of Bendable Systems for Monitoring the Risk of Pressure Sores: 104k USD NANOSIS-3.2 Development of Textile-Based Wearable Systems for Monitoring Heart Data: 23k USD Optimization of AX201 Prepreg Manufacturing Process for UD Tape, Slit Tape and Pit Free Surface at VBO Processing: 9k USD

Comment

C3.1

(C3.1) Does your organization’s strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

No

Mechanism by which feedback is collected from shareholders on your transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

In the Annual General Meeting, we have shared our low-carbon transition plan and replied the questions of our shareholders. Especially during the AGM held in the reporting year we have received many questions about climate-related performance, our transition plan and also our strategies about the emerging regulation like EU-CBAM, Turkish ETS, etc.

Frequency of feedback collection

Annually

Attach any relevant documents which detail your transition plan (optional)

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative, but we plan to add quantitative in the next two years	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
<div>Transition scenarios</div> <div>IEA NZE 2050</div>	Company-wide	<Not Applicable>	As we have already committed to become net-zero by 2050, we have used IEA NZE2050 scenario to evaluate our climate-related transition risks. This scenario assumes that advanced economies will reach net zero in advance of 2050 and sets out an emissions trajectory consistent with a 50% chance of limiting the global temperature rise to 1.5°C without a temperature overshoot. The pathway described in this scenario is designed to maximise technical feasibility, cost-effectiveness and social acceptance while ensuring continued economic growth and secure energy supplies. As we identify our risks and opportunities in short-medium and long-term time horizons, we apply the same time horizons when assessing the climate-related scenarios. All of our operations are included in the scenario analysis. Kordsa operates in 5 countries, all of which have ratified the Paris Agreement. On another level, although we don't have any production facilities in Europe and Japan, we have very important customers in those regions, and therefore the transitional policies of these regions are also monitored and included in our climate-related scenario analysis.
<div>Physical climate scenarios</div> <div>RCP 8.5</div>	Company-wide	<Not Applicable>	To better understand the worst-case scenarios and physical impacts of climate-change on our operations, we have started using IPCC RCP 8.5 scenario. This scenario contains a combination of negative factors, like high population growth or high economic growth, emissions increase until the end of the century, etc. As we identify our risks and opportunities in short-medium and long-term time horizons, we apply the same time horizons when assessing the climate-related scenarios. All of our operations are included in the scenario analysis. Kordsa operates in 5 countries, all of which have ratified the Paris Agreement. On another level, although we don't have any production facilities in Europe and Japan, we have very important customers in those regions, and therefore the acute and chronic physical impacts of climate-change are also included in our climate-related scenario analysis for those regions. WRI Aqueduct pessimistic scenario uses this scenario together with SSP3, also it is the only worst-case scenario we were able to reach which was also studied by Turkish Meteorological institution. As water is a vital source for our operations, for our global operations including our supply chain, we focused on water using WRI Aqueduct and analyzed the water stress for the future pessimistic scenarios. We also used Turkish Meteorological Institution's Study titled "Climate Change Projections for Turkey: Three Models and Two Scenarios"

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

1. What type of transitional impacts can we expect in the long-term (>5 years) 2. What possible water-related impacts we may face in the future (2040)

Results of the climate-related scenario analysis with respect to the focal questions

1. According to NZE 2050, in order to reach the goals of the Paris agreement there has to be a major shift in the transportation industry. Electric car sales would need to be 18 times more in 2030 than it was in 2020, and by 2050 cars on the road worldwide run on electricity or fuel cells. A shift from aviation to high-speed rail is expected in transport industry. Kordsa's main clients are tire producers and these kinds of shifts in the transport industry, may present an opportunity or become a risk, depending on how early we position ourselves in the industry. 2. According to WRI Aqueduct water stress country ratings data set, 2040 pessimistic scenario: Turkey ranks 27th on the industrial water stress (extremely high>80%) Indonesia ranks 51st with High industrial water stress (40-80%) United States ranks 53rd with Medium to High (20-40%) Thailand ranks 77th with Low-Medium water stress (10-20%) Brazil ranks 108th with Low water stress (<10%)

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	As the awareness is raising and the climate change-related impacts are becoming more visual, there is a shift in customer preferences towards more sustainable/ low-carbon products. As a strategic decision influenced by climate-related risks & opportunities, we are constantly working on R&D projects to advance our existing products and to create new products for emerging markets. Our Composite Technologies Center of Excellence (CTCE) serves as one of the very few integrated manufacturing centers in the world. At CTCE, we develop innovative intermediary products primarily for aerospace and automotive as well as sports, maritime industries and industrial applications. These R&D activities mainly focus on reducing the weight of the final product, which in turn reduces the fuel consumption and GHG emissions. As the GHG emission regulations are becoming stricter throughout the world, these new products will be more attractive for the costumers Time horizons covered: Short-medium and long term CASE STUDY: Climate-related expectations of our customers has influenced our strategy and encouraged us develop more innovative and sustainable products, which reduce GHG emissions Some of these products are; Nylon Yarn with 20% nylon recycled content: We produce "rNY66 flake" with the recycled raw material obtained by recycling the by-product during Kordsa's yarn production processes. Yarn production and cord fabric were made using 20% recycled raw materials and received customer approval in tire tests. We have tested this new product with recycled content, and the test results are very promising. LCA study shows that compared to using 100% virgin raw materials, the 20 % recycled content provides 17% less carbon footprint. In the future, we also plan to evaluate recycled NY66 from post-consumer sources We are producing carbon fiber fabrics that are used in the battery enclosures of electric vehicles. This fabric reduces the final weight of the EV batteries, while increasing the durability of the enclosure. E-GLASS PREPREG: In an ongoing collaboration with Ford Otosan, we are working to reduce the weight of the steel spring system that is present in HGVs. E-GLASS PREPREG was developed as a result of this project in 2019. This innovative sheet spring reduces the weight of the vehicle, hence reducing fuel consumption & GHG emissions.
Supply chain and/or value chain	Yes	Description of influence: Our whole value chain is always included in our climate-related risk analysis and the results of the risk analysis are always reflected to our short-medium and long-term strategies. As a result of our continuous risk assessment covering our supply chain, we have identified risks with a probable impact that can lead to disruption of our operations. Together with the incident trends around the globe regarding different sectors' vulnerability to supply chain disruptions, we are aware that if we don't maintain a sustainable supply chain, we are faced with a risk to our business continuity. Time horizons covered: Short-medium and long term A case-study of most important strategic decisions (medium & long-term): For example, one of our raw material is plastic which is derived from fossil fuels, therefore our plastic polymer suppliers are subjected to be impacted from climate change related transition risks. Expanding this example to all our strategic raw materials and assets, the potential impact is greater. In order to effectively manage supply chain related risks, we have developed a Sustainability Supply Chain Assessment Program. Our supply chain department prepared a Kralij Matrix through which, we request sustainability assessment from the suppliers with purchasing volume over 500,000 USD and these suppliers are classified using this matrix. In 2021 suppliers from various sectors (i.e. raw materials, service, transport, energy, packaging) were included in this assessment. We assess these suppliers on a global scale based on economic, social and environmental aspects such as energy and emissions management. The magnitude of this strategic impact is considered to be high as sustainable supply chain is a critical element of our business success.
Investment in R&D	Yes	Kordsa considers climate-related need to invest in R&D as an opportunity to create new markets and extend the presence on the existing market. In order to capitalize on this opportunity, Kordsa dedicates an annual budget to R&D activities. Time horizons covered: Short-medium and long term A case-study of most important strategic decisions (short-term): In the reporting period, Kordsa invested around 7.63 million USD in R&D activities to develop low carbon products with lower environmental impact. The magnitude of impact that this area has on our business is considered to be medium.
Operations	Yes	Climate-related physical risks have already impacted our operations. Over a decade ago, our Thailand production facility experienced a severe flooding event, causing substantive damage to our assets and resulted in a production disruption for over a month. Similar event with much lower magnitude took place in our Izmit- Turkey production facility in 2018, causing a temporary disruption to our production. Physical climate risks not only pose damage to our assets and result in additional CAPEX, but also they increase our OPEX through maintenance and testing costs. Time horizons covered: Short-medium and long term A case-study of most important strategic decisions (short-term): One of Kordsa's main product is nylon yarn, production of which requires certain indoor ambient conditions to meet the desired quality properties; mean temperature and humidity level. As the climate change scenarios foresee a rise of mean temperature, this poses 2 risks for Kordsa both of which will result in decreased revenue. The first risk will be declining product quality if the certain climate conditions cannot be provided by the Climate Control System in place resulting in decreased sales. The second risk will be production disruption if the mean temperature rises beyond acceptable limits for our Climate Control System to handle. Temperature levels higher than average causes Climate Control System to malfunction and "the break response time" for the system to reboot gets longer as the temperature gets higher As a strategic decision influenced by this risk we are giving utmost importance to effective operation of the existing climate control system through periodic maintenance. In the reporting period the maintenance costs were 20,998 USD.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Assets Liabilities	<p>Revenues: Our financial planning process recognizes the climate-related risks and opportunities. In terms of risks, our net revenue is expected to decrease as a result of increasing operational as well as capital expenses due to increasing raw material and energy prices. This has a direct impact on our profitability. In terms of opportunities, however, there are many new and innovative products that we are working on developing, which will in turn give us access to new markets and increase our revenues. Time horizon covered: Short-Medium and Long-term A case study of how climate-related opportunities have influenced our financial planning (short-term): Our R&D team are constantly working on development of new innovative and environmentally friendly products to achieve low-carbon performance both during production and end-usage phases. According to a recent report, the electric vehicle market is expected to grow with a compound annual growth rate of 29% from 2021 to 2026. This presents Kordsa with a new opportunity for our composites business. Lightweight composites are a key element for the development of electric vehicles and sustainable transport solutions. Our carbon fiber fabrics can be used in battery enclosures of EVs, making the EV batteries lighter and more durable. This opportunity has also impacted our medium- and long-term financial planning as we are constantly investing on R&D to improve our low-carbon product portfolio. Direct Costs: Our direct costs planning takes the climate-related risks into account as we are already experiencing price increase on especially fossil fuel derived raw materials. As there is a consistent and increasing trend to divest from fossil fuel intensive sectors, we expect the prices of raw materials to become higher. The risks of acute and chronic physical impacts of climate change are also factored in our financial planning, as it may impact our supply chain operations. Time horizon covered: Medium to long-term Indirect costs: Our indirect cost planning process takes the climate-related risks into account as we are already experiencing energy price increase due to climate-change related taxes and trading obligations. As there is a consistent and increasing trend to divest from fossil fuel intensive sectors, we expect the prices will become higher. Time horizon covered: Medium to long-term A case study of how climate-related risks and opportunities have influenced our financial planning (medium-term): In order to introduce climate change mitigation and adaptation efforts, many countries have introduced CO2 emissions trading or pricing systems. In one of the countries we operate in (Turkey), we are currently monitoring and reporting our CO2 emissions to the national authorities (the Ministry of environment and Urbanization). Turkey is also in the process of assessing the right mechanism to price CO2 emissions, and simulations on an Emission Trading System similar to EU-ETS are currently being performed under World Bank funded Partnership for Market Readiness Program. As we are already included in Turkish MRV, implementation of an ETS will have a considerable impact on our Turkish operations in the mid-term. This impact is foreseen to be around 1.74 million USD. Capital expenditures As both the water and energy prices are affected from climate- related root causes, the potential/forecasted increase in our OPEX intensifies our CAPEX to maintain the costs at a feasible level. Time horizon covered: Short-medium and long-term. A case study of how climate-related risks and opportunities have influenced our financial planning (short-term): Our CEO has approved an investment on Solar PV panels in our Indonesia facility. This investment decision is influenced by climate-related risks and included in our short-term capex planning. The investment decision was finalized in 2021, and the investment will be operational in 2022. Capital Allocation: Capital allocation has also been influenced by climate related risks and opportunities. As a result of our risk assessment, we have a dedicated R&D and energy efficiency budget. Time horizons covered: Short and Mid-term A case study of how climate-related risks and opportunities have influenced our financial planning (short-term):We have allocated a fair amount of capital on various energy efficiency In the reporting year, Indonesia and Thailand plants implemented energy efficiency projects for dipping process to reduce natural gas consumption Indonesia and Thailand has spent around 75,000 USD for the implementation of those projects which resulted in major energy efficiency. Assets: Especially climate related physical risks have already impacted some of our facilities, namely Thailand and Turkey production facilities. As a result of a flooding event took place in both locations, we have experienced damage to our facilities, causing temporary disruption to production increasing capital expenditure as well as operating costs. We consider the impact so far to be low-medium, with a likelihood of an increase over the medium to long-term. Also, acute and chronic physical effects of climate change may result in damaging our assets which influenced our long-term financial planning. Time horizons covered: Medium to long-term Liabilities: Lenders as well as insurers consider ESG risks and opportunities while determining our liabilities. Due to its location (by a river flood plain) our Izmit production facility has experienced insurance cost increase in the recent years. We consider the magnitude of impact to be low. Moreover, as a mandatory reporter to the Turkish Ministry of environment and Urbanization's Regulation on Monitoring GHG Emissions, we may potentially have a future liability if the Country is to introduce a GHG emissions pricing mechanism. Although our GHG emissions intensity is not as high as most of the other mandatory reporters under the same Regulation, this will still be an addition of another low magnitude impact in the future. Time horizons covered: Medium to long-term</p>

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

No, but we plan to in the next two years

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2019

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2018

Base year Scope 1 emissions covered by target (metric tons CO2e)

128175.84

Base year Scope 2 emissions covered by target (metric tons CO2e)

307105.93

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

435281.77

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2025

Targeted reduction from base year (%)

17.5

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

359107.46025

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

134159.86

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

268469.67

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

402629.53

% of target achieved relative to base year [auto-calculated]

42.8651603239503

Target status in reporting year

Replaced

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

The target covers all our gross-global Scope1 and Scope 2 GHG emissions. This target is set to be in line with the well below 2 degrees scenario. We target a reduction of 17.5 % from our gross-global Scope1 and Scope 2 GHG emissions, over a period of 7 years, which translates to 2.50 % reduction per year on average. The target is in line with the IEA WB2C using the absolute contraction approach. However as we have sent our commitment letter to SBTi, we have decided to set a more ambitious target which will be submitted to SBTi for validation. This Target is replaced with our new target (Abs 3) and will not be monitored and reported anymore.

Plan for achieving target, and progress made to the end of the reporting year

<Not Applicable>

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 2

Year target was set

2019

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2018

Base year Scope 1 emissions covered by target (metric tons CO2e)

128175.84

Base year Scope 2 emissions covered by target (metric tons CO2e)

307105.93

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

435281.77

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2034

Targeted reduction from base year (%)

33.6

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

289027.09528

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

134159.86

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

268469.67

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

402629.53

% of target achieved relative to base year [auto-calculated]

22.3256043353908

Target status in reporting year

Replaced

Is this a science-based target?

No, but we are reporting another target that is science-based

Target ambition

<Not Applicable>

Please explain target coverage and identify any exclusions

The target covers all our gross-global Scope1 and Scope 2 GHG emissions. We target a reduction of 33.6% from our gross-global Scope1 and Scope 2 GHG emissions, over a period of 16 years, which translates to 2.10 % reduction per year on average. However as we have sent our commitment letter to SBTi, we have decided to set a more ambitious target which will be submitted to SBTi for validation. This Target is replaced with our new target (Abs 3) and will not be monitored and reported anymore.

Plan for achieving target, and progress made to the end of the reporting year

<Not Applicable>

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 3

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

128845.93

Base year Scope 2 emissions covered by target (metric tons CO2e)

294806.25

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

423652.78

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

46.2

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

227925.19564

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

134159.86

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

268469.67

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

402629.53

% of target achieved relative to base year [auto-calculated]

10.7410767208633

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

1.5°C aligned

Please explain target coverage and identify any exclusions

This target is a new target which is developed after we have committed to SBTi. This target was developed using SBTi Tool and we commit to a reduction of 46.2% from a 2019 base year until 2030.

Plan for achieving target, and progress made to the end of the reporting year

We have ongoing renewable energy investments in our facilities in Thailand and Indonesia. We have a dedicated budget for purchasing renewable energy attribute certificates. Our low-carbon transition plan relies mainly on renewable energy investments and PPA's with bundled energy attribute certificates. We are investigating renewable energy purchase options in the countries where we operate in.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

Target reference number

Abs 4

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Category 10: Processing of sold products

Base year

2021

Base year Scope 1 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3 emissions covered by target (metric tons CO2e)

498729.76

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

498729.76

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

<Not Applicable>

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

24.46

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)

22.5

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

386515.564

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

498729.76

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

498729.76

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

This is a new target which replaces our previously announced Scope 3 target. As we have extended the scope of our scope 3 inventory we have also stopped monitoring the previous year's target. This target covers all GHG emissions from fuel and energy related activities and processing of sold products. This target will be included in our SBTi submission. We are also working on a supplier engagement target for our Category 1 emissions from purchased goods and services.

Plan for achieving target, and progress made to the end of the reporting year

Category 3 emissions will be automatically reduced when we reduce our Scope 1 and Scope 2 GHG emissions. Our clients are tire companies who are constantly working on reducing their GHG emissions, their efforts will help reduce our GHG emissions as well. We are also working on a roadmap to further reduce these GHG emissions.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production

Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2019

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2019

Consumption or production of selected energy carrier in base year (MWh)

0

% share of low-carbon or renewable energy in base year

0

Target year

2030

% share of low-carbon or renewable energy in target year

75

% share of low-carbon or renewable energy in reporting year

12.5

% of target achieved relative to base year [auto-calculated]

16.6666666666667

Target status in reporting year

Achieved

Is this target part of an emissions target?

Yes, it is part of our Abs 1, Abs 2 and Abs 3 emission reduction targets.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

This target covers all of our operations. We have a target to consume 75% of our electricity from renewable resources in all of our plants by the year 2030. This target is also part of our emission reduction targets Abs 1, Abs 2 and Abs 3 because we see it as a way to achieve our targets. In 2021 we have sourced 75,912 MWh of our electricity use in Turkey Izmit plant from renewable sources and we have also generated 52.64 MWh from rooftop solar panels in our CTCE plant in İstanbul. This amount equals to 12.5% of our global electricity consumption and 38.91% of our electricity consumption in our Izmit plant.

Plan for achieving target, and progress made to the end of the reporting year

<Not Applicable>

List the actions which contributed most to achieving this target

Our CEO's decision to source a considerable part of our electricity from renewable sources via i-REC certificates was the major action that contributed to over-achieving this target.

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs3

Abs4

Target year for achieving net zero

2050

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain target coverage and identify any exclusions

This target covers all of our operations. In 2020, our BoD together with our CEO and ELT, have approved the commitment to a net-zero target. We have a target of reaching net-zero emissions by 2050. In 2022, we have started working on preparing a low-carbon transition plan to help us on our road to Net-Zero, and we are committed to seek validation of this target through Science Based Targets Initiative.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

<Not Applicable>

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	1	2270.61
Implementation commenced*	2	401.73
Implemented*	12	36608.38
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings	Lighting
--------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

97.34

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

21042

Investment required (unit currency – as specified in C0.4)

29950

Payback period

1-3 years

Estimated lifetime of the initiative

11-15 years

Comment

A total of 4 emissions reduction initiatives were implemented in Indonesia, İzmit-Turkey and US (Advanced Honeycomb Technologies) as part of the initiative category chosen, achieving annual electricity savings equal to 174,016 kWh. The payback period and estimated lifetime are given as average figures.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization
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Estimated annual CO2e savings (metric tonnes CO2e)

3770.19

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

519356

Investment required (unit currency – as specified in C0.4)

166488

Payback period

<1 year

Estimated lifetime of the initiative

11-15 years

Comment

A total of 6 emissions reduction initiatives were implemented in our plants in İzmit-Turkey, Indonesia, and Thailand as part of the initiative category chosen, achieving annual electricity savings equal to 4,504,601 kWh and annual natural gas savings equal to 2,936,225 kWh. The payback period and estimated lifetime are given as average figures.

Initiative category & Initiative type

Low-carbon energy consumption	Solid biofuels
-------------------------------	----------------

Estimated annual CO2e savings (metric tonnes CO2e)

28686.63

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

31000

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

We have purchased 66,512 MWh I-REC's from Mavibayrak Biomass Power plant reducing our GHG emissions by 28,686.63 tCO2e. This is a part of our goal on increasing our renewable energy consumption. Payback period is selected as no-payback as this investment does not cause any monetary savings.

Initiative category & Initiative type

Low-carbon energy consumption	Solar PV
-------------------------------	----------

Estimated annual CO2e savings (metric tonnes CO2e)

4054.22

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4)

6300

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

We have purchased 9400 MWh I-REC's from RA Gunes Mardin GES reducing our GHG emissions by 4,054.22 tCO₂e. This is a part of our goal on increasing our renewable energy consumption. Payback period is selected as no-payback as this investment does not cause any monetary savings.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Dedicated budget for energy efficiency	Kordsa makes detailed annual budgets including a dedicated budget for continuous implementation of energy efficiency projects. Each Site's Energy Manager presents the feasible potential efficiency projects to the Global Chief Operating Officer who has the authority to approve project budgets up to 5% of the annual revenue. If the project budget exceeds 5% of the revenue, the project proposal is submitted to the CEO and ELT for approval. In 2021, we have dedicated a total budget of around 300,000 USD for climate and water-related reduction initiatives.
Dedicated budget for low-carbon product R&D	Kordsa prioritizes R&D investment as a natural consequence of its "we reinforce life" approach. Accordingly, a dedicated budget for the R&D of low-carbon and eco-friendly products is approved on an annual basis. In the reporting period, Kordsa dedicated 2% of its revenue to R&D projects.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.**Level of aggregation**

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Buildings construction and renovation	Other, please specify (Kratos Synthetic Fiber Concrete)
---------------------------------------	---

Description of product(s) or service(s)

KraTos Macro PP is a high-performance polymer-based monofilament synthetic fiber reinforcement that can be utilized in concrete by directly replacing steel mesh or steel wire applications in infrastructure projects requiring high structural strength in concrete.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify (Environmental Product Declaration In accordance with ISO 14025 and EN 15804:2012+A2:2019)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

1 kg of KraTos Synthetic Fibre Concrete Reinforcement

Reference product/service or baseline scenario used

According to the product life cycle evaluation made within the framework of ISO 14040/44 standards, the carbon footprint of 1 kg of KraTos Synthetic Fiber Concrete Reinforcement is equivalent to 2.9 kg of CO₂ eq. Considering the amount of KraTos used to prepare 1 m³ of concrete, the following conclusion is reached. Compared to its equivalent steel reinforcement products, the use of Kratos Synthetic Fiber Concrete Reinforcement reduces the carbon footprint of concrete by approximately 40-70%.

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO₂e per functional unit) compared to reference product/service or baseline scenario

0.00205

Explain your calculation of avoided emissions, including any assumptions

The carbon footprint of 1 m² slab with steel mesh reinforcement is 2.92 kg CO₂e which is equal to 0.00292 tCO₂e/functional unit, The carbon footprint of 1 m² slab with Kratos Synthetic Fiber Concrete reinforcement is 0.87 kg CO₂eq, which is equal to 0.00087 tCO₂e/functional unit. Therefore the avoided emissions are equal to: 0.00292-0.00087=0.00205 tCO₂e/functional unit

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

1

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other	Other, please specify (Ceramix Matrix Composite)
-------	--

Description of product(s) or service(s)

Lightweight composites are a key element for the development of electric vehicles and sustainable transport solutions. Kordsa's Ceramix Matrix Composite products, carbon fiber fabrics are being used in the manufacture of fuel cells that can generate combustion-free, emission-free and carbon-free electricity from hydrogen. Also it is used instead of metal parts in aircraft engines.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

<Not Applicable>

Functional unit used

<Not Applicable>

Reference product/service or baseline scenario used

<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario

<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions

<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

1

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other	Other, please specify (Twixtra (Cord Fabric))
-------	---

Description of product(s) or service(s)

Virtually the lightest hybrid cord product in the world and achieved expected sales volumes, allowing the tire to be produced with fewer raw materials eventually reducing the tire weight and lighter weight tires allow for reduced fuel consumption.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

<Not Applicable>

Functional unit used

<Not Applicable>

Reference product/service or baseline scenario used

<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario

<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions

<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

1

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon
The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other	Other, please specify (%20 Recycled Nylon Tire Cord Fabric with Recycled PA66 Flake)
-------	--

Description of product(s) or service(s)

We transform our production scraps through our recycle machine into chips and reuse them in the production as recycled input. Production of cord fabric with recycled material, reducing the carbon footprint of the product

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify (Life Cycle Assessment)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

1 kg of Recycled PA Flake material

Reference product/service or baseline scenario used

Reference product is 100% Virgin raw material product

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.00184

Explain your calculation of avoided emissions, including any assumptions

According LCA results, %100 virgin raw material product GWP of Raw Material Stage is 9.46 kgCO2e/functional unit = 0.00946 tCO2e/functional unit, our %20 recycled content product's GWP of Raw Material Stage is 7.62 kgCO2e/ functional unit = 0.00762 tCO2e/functional unit. Therefore the avoided emissions are equal to: 0.00946-0.00762=0.00184 tCO2e/functional unit

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

Name of organization(s) acquired, divested from, or merged with

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	In 2021 after we have performed a thorough screening on our Scope 3 GHG emissions, we have decided to include GHG emissions from Scope 3 Category 10 "Use of Sold Products". Scope 3 Category 12 "End of Life Treatment of Sold Products" are also included although this category is assessed to be below our relevance thresholds. We have also extended the scope of our Scope 3 Category 1 "Purchased goods and services" to include raw materials used by our composite sites.

C5.1c

(C5.1c) Have your organization’s base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	Yes	As the impact of the changes in our Scope 3 inventory is higher than 5% of our total scope 3 GHG emissions, this change in boundary triggers a base-year recalculation. However, we do not have reliable data for 2020, therefore for the sake of consistency, we have decided to revise our base-year as 2021. This base-year will also be used as the base year for our Scope 3 target in SBTi target submission.

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
128175.84

Comment
No changes in base-year for Scope 1 GHG emissions.

Scope 2 (location-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
307105.93

Comment
There are no changes in base-year for Scope 2 location-based GHG emissions.

Scope 2 (market-based)

Base year start
January 1 2018

Base year end
December 31 2018

Base year emissions (metric tons CO2e)
307105.93

Comment
There are no changes in base-year for Scope 2 market-based GHG emissions.

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
1459457.87

Comment
In 2021 we have extended the scope of our Scope 3 Category 1 "Purchased goods and services" to include raw materials used by our composite sites.

Scope 3 category 2: Capital goods

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
0

Comment
Capital goods purchases for the base year was below our materiality threshold. According to our materiality assessment, if a Capex purchase is over 1% of our total capital and operational expenses. In the base year the highest capital expense made up 0.18% of our total Capex and opex. Therefore there were no significant capital expenses.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

138164.33

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

57573.97

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 5: Waste generated in operations

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

1527.78

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 6: Business travel

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

612.84

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 7: Employee commuting

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

4892.52

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 8: Upstream leased assets

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

0

Comment

We don't have any upstream leased assets. All GHG emissions for leased assets are reported under Scope 1 and Scope 2 GHG emissions.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

8769.21

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 10: Processing of sold products

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

360565.43

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 11: Use of sold products

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

0

Comment

All our products are intermediate products and need further processing (such as tire manufacturing) to be used. Therefore, this category is not applicable to our products.

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

5955.41

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 13: Downstream leased assets

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

1318.36

Comment

As we have extended the boundary of our Scope 3 inventory, we have also revised our base year as we have more reliable calculations for 2021. 2021 is also selected as base year for our Scope 3 targets.

Scope 3 category 14: Franchises

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

0

Comment

Kordsa does not have any franchises.

Scope 3 category 15: Investments

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
0

Comment
Kordsa has not made any investments that should be reported under this category in the base year

Scope 3: Other (upstream)

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
0

Comment
We have no other upstream scope 3 GHG emissions.

Scope 3: Other (downstream)

Base year start
January 1 2021

Base year end
December 31 2021

Base year emissions (metric tons CO2e)
0

Comment
We have no other downstream scope 3 GHG emissions.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
US EPA Emissions & Generation Resource Integrated Database (eGRID)

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
134159.86

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
The Scope 1 emissions figure includes emissions from 12 sites in 5 countries. The sources of emissions are stationary combustion of fossil fuels, mobile combustion in vehicles that are controlled by our company and fugitive gases from our cooling equipment and fire extinguishers.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

We are reporting a location-based Scope 2 emissions figure, resulting from the use of electricity from the grid. We have also purchased renewable energy from our supplier with i-rec certificates, therefore we are also reporting a market-based figure this year.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

301210.52

Scope 2, market-based (if applicable)

268469.67

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

We are reporting location-based Scope 2 emissions resulting from electricity purchased and consumed from the grid for 12 plants in 5 countries. For all location-based figures we use national grid emission factors. All the amount of electricity purchased is included in the location-based figure. The amount of electricity for which there are i-Rec purchases is also included and calculated using the grid EF. As a part of goal on using renewable electricity, we have purchased 75,912 MWh of i-Rec certificates, therefore we are also reporting a market-based figure, where the emissions for the i-Rec certified amount is calculated with an emission factor of zero. The rest of the market-based figure is calculated using the national grid EFs as we were not able to reach market-based emission factors.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1459457.87

Emissions calculation methodology

Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emission Factors: The emission factors are taken from Ecoinvent 3.6 database and they include cradle to gate GHG emissions. Activity Data: The GHG emissions resulting from the production of purchased goods and services are calculated using purchasing data for our raw materials. Raw materials that make-up more-than 90% of our procurement spend including packaging materials are included in this calculation. GHG emissions from transportation of these raw materials from our tier 1 suppliers to our facilities are reported under Category 4: Downstream transportation and distribution. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The raw material consumption data are taken from our purchasing records, this data is cross-checked by the transportation data obtained from each Kordsa facility. 93.57% of the GHG emissions in this category have been verified by a third party.

Capital goods

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

This category is not relevant because there were no significant capital goods purchases during the reporting period. Emissions from the use of capital goods are accounted for in Scope 1. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. According to our materiality threshold, capital expenses that comprise more than 1% of our Capital + Operational Expenses are assessed to be material and further assessment is made using Quantis Scope 3 Evaluator. In the reporting year the highest capital expense was 0.18% of our total capital + operational expenses so the capital goods purchases were under our materiality threshold.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

138164.33

Emissions calculation methodology

Supplier-specific method

Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

99.63

Please explain

Emission Factors: The GHG emissions resulting from the fuel and energy related activities are calculated using Well to tank emission factors published by DEFRA (Conversion Factors 2021 Full Set for Advanced Users). The fossil fuel consumption figures already compiled for Scope 1 calculations are multiplied with WTT emission factors in order to calculate WTT GHG emissions of the fossil fuels used. Electricity consumption figures already collected for Scope 2 calculations have been multiplied by WTT UK& Overseas Electricity emission factors published by DEFRA (Conversion Factors 2021 Full Set for Advanced Users) Activity Data: Activity data compiled includes the fossil fuel and electricity consumption data that is already compiled for Scope 1 and Scope 2 calculations. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The electricity and natural gas consumption figures are taken from the invoices of suppliers. GHG emissions resulting from these 2 emission sources make up 99.63% of the emissions from this category. 87.51 % of these emissions are verified by a third party.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

57573.97

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emission Factors: For ground transportation we have multiplied the km data with number of shipments and used emission factors that are published by DEFRA (Conversion Factors 2021 Full Set for Advanced Users) to calculate the GHG emissions. All the trucks that have an average load over 10 tons are assumed to be 100% laden, and the ones below 10 tones are assumed to be 50% laden. For rail-air and sea transportation we have used the ton.km data multiplied by number of shipments. We have also used DEFRA EFs for these transportation activities. The emission factors are all taken from DEFRA (Conversion Factors 2021 Full Set for Advanced Users), "Delivery Vehicles" tab. Activity Data: The GHG emissions resulting from the transportation of the products we have purchased and the transportation services that we have purchased during the reporting year, are reported under this category. We collected the average distance, average load and number of shipment data from all of our sites. All the transportation services that are purchased by KORDSA are reported under this category as per the GHG protocol Scope 3 standard. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. As this category includes the transportation services purchased in the reporting year and transportation of raw materials from suppliers to Kordsa facilities, we have used data from our own purchasing/sales records. 86.19% of the GHG emissions in this category have been verified by a third party.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

1527.78

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Emission factors: The GHG emissions resulting from the waste produced in all Kordsa facilities are calculated using the "Waste Disposal" emission factors published by DEFRA (Conversion Factors 2021 Full Set for Advanced Users). Activity data: The total weights of the waste disposed are collected according to the disposal method for each Kordsa facility. This data is then multiplied by corresponding GHG emission factors. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. GHG emissions related to treatment of wastewater in third-party installations is also reported under this category. 58.15% of the GHG emissions in this category have been verified by a third party. The GHG emissions from waste generated in operations makes up %0.07 of our total Scope 3 GHG emissions therefore this category is assessed to be not relevant, but included in our calculations to assure the completeness of our GHG inventory

Business travel

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

612.84

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Emission Factors: The emission factors for calculation of emissions from business travel are taken from DEFRA's "Conversion Factors 2021 Full Set for Advanced Users" Business Travel-air tab. The EFs with radiative forcing are used for the calculations. Activity Data: We obtain flight information from our travel agency. (Departure and destination ports, flight class, number of trips). We then use International Civil Aviation Organisation (ICAO) website to calculate flight distance. This category includes business flight data of Kordsa employees and sometimes the data for their families as well if the flight ticket is paid for by Kordsa. No other means of transport is used for business travel. Some employees use company cars for travel and these figures are reported under Scope 1 emissions. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Flight route and class data are taken from our travel agency. 82.19% of the GHG emissions in this category have been verified by a third party. The GHG emissions from business travel makes up %0.03 of our total Scope 3 GHG emissions therefore this category is assessed to be not relevant, but included in our calculations to assure the completeness of our GHG inventory

Employee commuting

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

4892.52

Emissions calculation methodology

Fuel-based method
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

44.7

Please explain

Emission Factors: The GHG emission factors for employee commuting are taken from DEFRA (Conversion Factors 2021 Full Set for Advanced Users) both for personnel shuttles and employees' own vehicles. Activity Data: We have collected the km and fuel consumption data for personnel shuttles from the service provider companies. We have also prepared a questionnaire to identify the fuel consumption figures of employees commuting with their own vehicles. All of the activity data required for employee shuttles are taken from the shuttle service providers. The data related to the own consumption figures of the employees are extrapolated according to the questionnaire results. As a result 44.7% of the emissions are calculated using data obtained from suppliers and employees. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. 59.35% of the GHG emissions in this category have been verified by a third party. The GHG emissions from employee commuting makes up %0.24 of our total Scope 3 GHG emissions therefore this category is assessed to be not relevant, but included in our calculations to assure the completeness of our GHG inventory.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We don't have any upstream leased assets that needs to be reported under this category. All of the GHG emissions from our leased assets are reported under Scope 1 and Scope 2 GHG emissions as we use operational control approach to compile our activity data.

Downstream transportation and distribution

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

8769.21

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

Activity data: The GHG emissions resulting from the transportation of our products are reported under this category. We collected the average distance, average load and number of shipment data from most of our sites for the goods that are delivered to our customers. Assumptions & Emission Factors: For ground transportation we have multiplied the km data with number of shipments and used emission factors that are published by DEFRA (Conversion factors 2021 Full Set for Advanced Users) "Freighting goods" tab to calculate the GHG emissions. All the trucks that have an average load over 10 tons are assumed to be 100% laden, and the ones below 10 tones are assumed to be 50% laden. For rail-air and sea transportation we have used the ton.km data multiplied by number of shipments. We have also used DEFRA EFs for these transportation activities. All the transportation services that are purchased by our customers are reported under this category as per the GHG protocol Scope 3 standard. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. This category includes the transportation services that are purchased by our customers. The total GHG emissions from this category makes up 0.43% of our total Scope 3 GHG emissions, therefore this category is assessed to be not relevant. However, for the completeness of our GHG inventory we are calculating these GHG emissions. 88.97 % of the GHG emissions in this category are verified by a 3rd party.

Processing of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

360565.43

Emissions calculation methodology

Average data method
Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Activity Data: We have compiled the production data from all of our plants. Then made a research on how much textile is contained in passenger car tires, light trucks, off-road vehicles, aircraft tires and truck tires. In the research we have used published data from US Tire Manufacturers Association, Waste and Resources Action Program, Goodyear and Science Direct. Emission Factors: We have used emissions intensity data published in CDP reports of 6 tire producer companies which are also our customers and found an average emission intensity value. We have also used our customer database to evaluate the percentage of tire types produced with our products. Finally we have used the ton of products produced by our facilities to estimate the GHG emissions during the processing of our products. 85.84% of these emissions are verified by a third party.

Use of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO₂e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

All our products are intermediate products and need further processing (such as tire manufacturing) to be used. Therefore, this category is not applicable to our products.

End of life treatment of sold products

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO₂e)

5955.41

Emissions calculation methodology

Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

Please explain

The calculation is based on a research of waste disposal methods in the countries where we ship our goods. Depending on disposal type EPA emission factors were used to calculate the GHG emissions related to our production. This category comprises 0.29% of our Scope 3 GHG emissions, therefore it is categorized as not relevant. 84.24% of these emissions are verified by a third party.

Downstream leased assets

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

1318.36

Emissions calculation methodology

Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

99.81

Please explain

Emission Factors: To calculate the GHG emissions from downstream leased assets we use the electricity emission factors published by IEA, which we use for our Scope 2 calculations as well. For the natural gas and diesel oil used in downstream leased assets we use GHG emission factors published by DEFRA (Conversion Factors 2021 Full Set for advanced users) "Fuels" tab. Activity data: We only have downstream leased assets in our Turkish sites. In these facilities, the electricity, natural gas and diesel oil (consumed in generators) are paid for by Kordsa and then invoiced to Companies that use Kordsa facilities. Where we have separate meters we use the meter readings for the data, where we don't have separate meters, we allocate the consumption figure according to area. Either way for electricity and natural gas consumption the data are taken from the invoices. The calculation was conducted according to the methodology outlined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The electricity and natural gas consumption figures are taken from the invoices of suppliers. GHG emissions resulting from these 2 emission sources make up 99.81% of the emissions from this category. The GHG emissions from downstream leased assets makes up %0.08 of our total Scope 3 GHG emissions therefore this category is assessed to be not relevant, but included in our calculations to assure the completeness of our GHG inventory 44.89% of the GHG emissions in this category is verified by a 3rd Party.

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Kordsa does not have any franchises, therefore this category is not relevant for us.

Investments

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have not made any investments in the reporting period, therefore this category is not relevant for us.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

No additional Scope 3 emission sources are identified

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

No additional Scope 3 emission sources are identified

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.000453

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

402629.53

Metric denominator

unit total revenue

Metric denominator: Unit total

888095386

Scope 2 figure used

Market-based

% change from previous year

17.82

Direction of change

Decreased

Reason for change

In 2021 we have implemented several emission reduction projects, that were which resulted in GHG Emission reductions of 3,867.53 tCO2e. We have also increased the share of renewable energy in our electricity consumption via energy attribute certificates, which helped us reduce our market-based Scope 2 GHG emissions by 32,740.85 tCO2e Kordsa global revenue has increased by 37.22% between 2020 and 2021 while the gross Scope 1 and 2 emissions have also increased by 12.77%. One of the reasons for the gross emissions increase is the increase in production volumes, as we were not working at our usual capacity due to Covid-19 related shut-downs in 2020. Therefore, our production has increased and so did our sales. Overall, as the increase in the global revenue is higher than the increase in GHG emissions, emissions/revenue figure has decreased.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	129947.26	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	136.37	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	90.36	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	3985.87	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	47695.18
Brazil	8898.35
Indonesia	17267.64
Thailand	8196.58
Turkey	52102.12

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

- By facility
- By activity

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
USA/AHT	155.99	33.137597	-117.186076
USA/TP1	16.76	33.84857	-117.972284
USA/FDI	234.61	40.444607	-75.350456
USA/AXIOM	789.99	33.721894	-117.840237
USA/CH	41909.48	35.1128	-85.2476
USA/LH	4588.34	34.81	-79.5231
KBR/Brazil	8898.35	-12.66	-38.3101
IK/Indonesia	17267.64	-6.5019	106.8716
TIK/Thailand	8196.58	14.3321	100.6421
KTR/Turkey	51518.89	40.7665	29.9976
CTCE/Turkey	583.23	40.9188	29.3153

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Stationary Combustion	129375.95
Mobile Combustion	796.69
Fugitive Emissions from A/C Units and Refrigerators	3391.38
Fugitive Emissions from Fire Extinguishers	595.83

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
United States of America	35453.51	35453.51
Brazil	7777.48	7777.48
Indonesia	151898.97	151898.97
Thailand	20859.66	20859.66
Turkey	85220.89	52480.04

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
USA/AHT	58.04	58.04
USA/TPI	188.53	188.53
USA/FDI	411.21	411.21
USA/AXIOM	468.55	468.55
USA/CH	26554.83	26554.83
USA/LH	7772.35	7772.35
KBR/Brazil	7777.48	7777.48
IK/Indonesia	151898.97	151898.97
TIK/Thailand	20859.66	20859.66
KTR/Turkey	84148.76	51407.91
CTCE/Turkey	1072.13	1072.13

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	27101.45	Decreased	7.59	Our previous year gross global Scope 1&2 emissions were 357,050.41 t CO2. Renewable energy is only generated in the solar PV system in our CTCE building in Istanbul. In the reporting year we have generated 52.64 MWh (GHG emissions equivalent: 52.64 MWh x 0.4313 tonCO2e/MWh = 22.70 tons CO2e) of renewable energy in this Solar PV system. In 2021 we have also purchased 75,912 MWh of renewable energy, which resulted in a decrease of 32,740.85 tCO2e in our market-based Scope 2 GHG emissions. In 2020, we have purchased less i-Rec certificates reducing 5,649.56 tons of CO2e, and we have generated 27.22 MWh of solar electricity which equals to 12.55 tCO2e. The resulting change in GHG emissions due to renewable energy purchases and change in generated and consumed renewable energy = (32,740.85+22.70)-(5,649.56+12,55) = 27,101.45 tons CO2e The decrease of emissions value (%) is calculated as follows: (27,101.45tons CO2e/ 357,050.41 tons CO2e) x 100 = 7.59 %
Other emissions reduction activities	3867.53	Decreased	1.08	Our previous year gross global Scope 1&2 emissions were 357,050.41 t CO2. As a result of the emissions reduction initiatives implemented in 2021, we achieved 3,867.53 tCO2 emissions reductions. The stated emissions value (percentage) was calculated with the following formula: 3,867.53 tCO2 / 357,050.41 t CO2*100 = 1.08%
Divestment	0	No change	0	We didn't have any divestments during the reporting period.
Acquisitions	0	No change	0	We didn't have any acquisitions during the reporting period
Mergers	0	No change	0	We didn't have any mergers during the reporting period.
Change in output	76132	Increased	21.32	Our previous year gross global Scope 1&2 emissions were 357,050.41 t CO2. Apart from the above-mentioned changes in the reporting period, Kordsa has returned to normal levels of operations, which resulted in an increase in both production and emissions. Our GHG emissions increased by 76,132.00 tCO2e when compared to the previous year which is caused by the increase in production volumes. The stated emissions value (percentage) was calculated with the following formula: 76,132.00 tCO2 / 357,050.41 t CO2*100 = 21.32%
Change in methodology	0	No change	0	There were no changes in methodology.
Change in boundary	0	No change	0	There were no changes in boundary.
Change in physical operating conditions	0	No change	0	There were no changes in physical operating conditions that can be attributed to the change in GHG emissions.
Unidentified	0	No change	0	There are no unidentified changes.
Other	0	No change	0	There are no other changes.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	650214.06	650214.06
Consumption of purchased or acquired electricity	<Not Applicable>	75912	532341.85	608253.85
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	52.64	<Not Applicable>	52.64
Total energy consumption	<Not Applicable>	75964.64	1182555.9	1258520.54

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

We do not use biomass in our operations.

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

We do not use biomass in our operations.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

We do not use any other renewable fuel in our operations.

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

We do not use coal in our operations.

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

7304.26

MWh fuel consumed for self-generation of electricity

4667.88

MWh fuel consumed for self-generation of heat

2636.38

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

We use Diesel oil and Gasoline in our operations. Diesel oil is used both in generators to generate electricity and in our vehicles (trucks, company cars etc.) which is reported under heat. We do not use oil to generate steam.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

642909.79

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

343027.57

MWh fuel consumed for self-generation of steam

299882.23

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Natural gas and LPG consumption is included. Natural gas is used for heat and steam generation in our plants in İzmit-Turkey, Indonesia and Chattanooga-US. In other plants it is used for heat generation only. LPG is used in Thailand, Brazil and Chattanooga-US plants mainly in forklifts, therefore the LPG consumption is reported here as "consumption for self-generation of heat".

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

We don't use any other non-renewable fuel in our facilities.

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

645546.18

MWh fuel consumed for self-generation of electricity

4667.88

MWh fuel consumed for self-generation of heat

345663.95

MWh fuel consumed for self-generation of steam

299882.23

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	4720.52	4720.52	52.64	52.64
Heat	342596.12	342596.12	0	0
Steam	299882.23	299882.23	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Sustainable biomass

Country/area of low-carbon energy consumption

Turkey

Tracking instrument used

I-REC

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

66512

Country/area of origin (generation) of the low-carbon energy or energy attribute

Turkey

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2019

Comment

In 2021 we have purchased I-Rec certificate from a renewable biomass plant. The certificate is attached in Question C-FI of this report

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Solar

Country/area of low-carbon energy consumption

Turkey

Tracking instrument used

I-REC

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

9400

Country/area of origin (generation) of the low-carbon energy or energy attribute

Turkey

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2019

Comment

In 2021 we have purchased I-Rec certificate from a solar power plant. The certificate is attached in Question C-FI of this report.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

<div>Country/area</div> <div>Turkey</div> <div>Consumption of electricity (MWh)</div> <div>197590.74</div> <div>Consumption of heat, steam, and cooling (MWh)</div> <div>0</div> <div>Total non-fuel energy consumption (MWh) [Auto-calculated]</div> <div>197590.74</div> <div>Is this consumption excluded from your RE100 commitment?</div> <div><Not Applicable></div>
<div>Country/area</div> <div>Indonesia</div> <div>Consumption of electricity (MWh)</div> <div>199421</div> <div>Consumption of heat, steam, and cooling (MWh)</div> <div>0</div> <div>Total non-fuel energy consumption (MWh) [Auto-calculated]</div> <div>199421</div> <div>Is this consumption excluded from your RE100 commitment?</div> <div><Not Applicable></div>
<div>Country/area</div> <div>Thailand</div> <div>Consumption of electricity (MWh)</div> <div>45288.02</div> <div>Consumption of heat, steam, and cooling (MWh)</div> <div>0</div> <div>Total non-fuel energy consumption (MWh) [Auto-calculated]</div> <div>45288.02</div> <div>Is this consumption excluded from your RE100 commitment?</div> <div><Not Applicable></div>
<div>Country/area</div> <div>Brazil</div> <div>Consumption of electricity (MWh)</div> <div>74711.66</div> <div>Consumption of heat, steam, and cooling (MWh)</div> <div>0</div> <div>Total non-fuel energy consumption (MWh) [Auto-calculated]</div> <div>74711.66</div> <div>Is this consumption excluded from your RE100 commitment?</div> <div><Not Applicable></div>
<div>Country/area</div> <div>United States of America</div> <div>Consumption of electricity (MWh)</div> <div>91242.42</div> <div>Consumption of heat, steam, and cooling (MWh)</div> <div>0</div> <div>Total non-fuel energy consumption (MWh) [Auto-calculated]</div> <div>91242.42</div> <div>Is this consumption excluded from your RE100 commitment?</div> <div><Not Applicable></div>

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Energy usage

Metric value

608253.85

Metric numerator

Total electricity usage in MWh

Metric denominator (intensity metric only)

No denominator

% change from previous year

24.09

Direction of change

Increased

Please explain

Our gross electricity consumption in 2020 was 490,176.97 MWh, in 2021 this value increased to 608,253.85 MWh. This translates into an increase of 24.09 %. This increase was expected as in 2020 due to Covid-19 related restrictions our production was lower. When calculating this amount the i-Rec certificates are not taken into account.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Kordsa 2022 CDP CC Assurance Report.pdf

Page/ section reference

Page 2: Verification Standard Page 6: Emission values

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

83

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Kordsa 2022 CDP CC Assurance Report.pdf

Page/ section reference

Page 2:, Verification Standard Page 6: Emission values

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

87

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Kordsa 2022 CDP CC Assurance Report.pdf

Page/ section reference

Page 2: verification standard Page 6: Emission values

Relevant standard

ISAE 3410

Proportion of reported emissions verified (%)

86

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3: Purchased goods and services
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Downstream transportation and distribution
Scope 3: Processing of sold products
Scope 3: End-of-life treatment of sold products
Scope 3: Downstream leased assets

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Verification Report - 14064_2018 - en.pdf
Verification Statement- 14064_2018 - en pdf.pdf

Page/section reference

Verification Report pages 1 & 2 Verification Standard, Page 4 Verified Emissions, Page 1 Reporting period.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

91.4

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Among the countries Kordsa operates in, Turkey is the only country which is in the process of establishing a carbon pricing mechanism. The method is not determined yet but it is expected to be either an emissions trading scheme (similar to EU ETS) or a carbon tax approach. In US, there are emission trading schemes, however none of our facilities are regulated under these systems.

Recently as a part of the World Bank funded “Partnership for Market Readiness” project, simulations of an ETS system were studied. The results of this study were also published on Turkish Ministry of Environment and Urbanisation website. We anticipate being regulated under the Turkish ETS system until 2025.

Our strategy for complying with this system is following up our regular monitoring and reporting obligations until this system is operational, and also trying to calculate the impact of this regulation by applying an internal carbon price, so that we can include the impacts of this regulation on our financial planning.

Case study of how this strategy is applied:

KTR Kordsa Izmit production facility in Turkey is currently reporting its stationary emissions on a mandatory basis as part of the Regulation on Monitoring GHG Emissions (Turkish MRV). We prepare our monitoring reports annually and these reports are verified by a 3rd party verification company which is accredited under Turkish MRV and also authorized by Ministry of Environment and Urbanization.

We are aware that the introduction of a carbon pricing mechanism in Turkey or any other country that we operate in, will result in future liabilities and possible financial burden for us. Therefore, we have identified an internal price on carbon and included this price on our risk assessments.

Each year we revisit our risk assessments, taking into consideration the recent developments in Turkey.

With the use of an internal carbon price, we are able to calculate the financial burden of this emerging regulation on our business. We are also constantly working on energy efficiency and reducing the GHG emissions that are under the scope of Turkish MRV.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations
Change internal behavior
Drive energy efficiency
Drive low-carbon investment
Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Application

Kordsa Turkey Izmit Facility, intended to be extended to other facilities

Actual price(s) used (Currency /metric ton)

90

Variance of price(s) used

According to an article published on 15th of December 2021 by Bloomberg, EUA prices hit a record high in December 2021, reaching 90 €/ton (95 USD/ton), this was a direct result of EU's recently announced Fit for 55 package which increased the EU target of GHG emissions reductions to an impressive 55% by 2030. In our Turkish operations, we are using a variance of prices in order to calculate our exposure to emerging regulations, and the minimum price we use 90 USD is taken from simulation studies of Kordsa's Global Risk Management (GRM) Department. The max. price we use is again taken from the simulation study of GRM and revised every month.

Type of internal carbon price

Shadow price

Impact & implication

In our Izmit facility, our total Scope 1 GHG emissions that are under the scope of Turkish MRV is 48,864 tons CO₂e in 2021. In a recent ETS simulation study published under the PMR Project, scenarios included capping the emissions at 80%. The simulation also included a free allocation of 50% of the allowances. This results in a liability of about 60% which is equal to 29,319 tons CO₂e. Based on GRM's low price simulation study (90 USD) the min. impact of Turkish ETS is calculated as 2,638,710 USD. And for high price scenario the impact of Turkish ETS is calculated as 3,298,387 USD. The amount of our max. total liability is approximately 3,298,387 USD. This impact figure has been presented to our Board and is included in our risk assessments. The internal price on carbon is updated every month from published data for GRM's studies.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

% of suppliers by number

4

% total procurement spend (direct and indirect)

60

% of supplier-related Scope 3 emissions as reported in C6.5

64

Rationale for the coverage of your engagement

2021 was the year we have started calculating our Scope 3 GHG emissions, our initial Scope 3 inventory was for the year 2020. We have identified Scope 3-Category 1 as our major source of Scope 3 emissions; therefore, we have decided to request climate-change related information from 100 % of our global raw material suppliers, which make up 60% of our total procurement spend. In 2021, we have prepared a data collection excel sheet, requesting data about their GHG emissions that are allocated to the goods that we have purchased. In order to educate our suppliers about this data collection excel, we have prepared a video on how to fill in the excel sheet. We have also prepared an internal training to our purchasing team that is responsible for collecting the data from our suppliers. During current reporting period, to gain a better understanding on our emissions and supplier profile, we have reached out to our major raw material suppliers which make up about 90% of our Scope 3 Category 1 GHG emissions. To identify which supplier would be most relevant we first assessed the raw materials that are high in GHG emissions. 3 raw materials namely Adipic Acid, HMD and Polyester Chip make up about 90% of our Scope 3 Category 1 GHG emissions. We procure these raw materials from 12 different suppliers, therefore these suppliers are prioritized in our climate change related engagement activities. We've had 300 raw material suppliers, therefore % of suppliers by number is $12/300 = 4\%$. The GHG emissions from the selected 12 suppliers make up 64% of our total Scope 3 GHG emissions. We organized a series of meetings with our Adipic Acid, HMD and Polyester Chip suppliers to assess the current approach of our suppliers. Also during those meetings we encouraged our suppliers to set science based targets. We informed them about our emission reduction initiatives and also about our target setting process. We aimed to encourage them to reduce climate impacts on products.

Impact of engagement, including measures of success

In 2021 5 of our suppliers have replied our request and sent their data for 2020, however we weren't able to use the data as they were inconsistent. In our point of view this attempt on data collection from our suppliers, was very successful in many ways. First of all, we have received data with reliable references from a few of our suppliers, however as most of the suppliers couldn't respond to our requests, we have decided not to include their responses to be consistent within the inventory. But most importantly we had a chance to see the challenges we have in data collection from suppliers. This data collection study, made us realize that we need to support our suppliers on the type of data that we request with trainings. This way they can better understand the methodology we use and we can better understand their challenges and help them overcome those challenges so that we can grow together. In engagement activities for the 2021 inventory, we have received valuable information about our main suppliers' climate change strategies. Out of the identified 12 suppliers, we've had meetings with the sustainability teams of 3 major suppliers which make up 67% of our Scope 3 Category 1 GHG emissions. Our suppliers have informed us about planned abatement technology investments, their climate-related strategies and also upcoming studies about the life cycle assessment of their products. We consider these engagement activities also as a success because although we were able to reach only 3 of our suppliers, the suppliers we have reached represented 74.4% of the GHG emissions of the total number of suppliers selected from this category.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts
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% of customers by number

5.4

% of customer - related Scope 3 emissions as reported in C6.5

62

Please explain the rationale for selecting this group of customers and scope of engagement

Tire reinforcement products make up about 86% of our total sales. Any activity we perform to reduce the climate change impacts of our products, impacts the climate-performance of our clients. For this engagement activity we focused on our biggest tire-reinforcement clients, which make up around 5.4% of our total tire-reinforcement clients by number, but they make up 62% of our tire-reinforcement business revenue. This is why we focus on this group of customers. Scope of engagement: We have developed a new fabric with 20% recycled content and sent this fabric for testing to our major tire-reinforcement clients. As part of yarn production (one of our 3 main product groups along with Single end core and greige fabric), we have a by-product called "Nylon 6.6" (NY66) chips. Our research and development team developed a project to use this by-product in our own production, to produce nylon yarn & fabric, 20% of which is composed of recycled material. We have tested this new product with recycled content, and the test results are very promising. As the tire industry has very high standards due to safety reasons, we have also submitted samples of this product to our customers and we had positive feedback from them. This innovative product has multiple benefits as reprocessing N66 chips not only helps us reduce our waste generation but also helps us implement the basis of a circular economy by using the side-product of our production process as a raw material to produce nylon yarn with recycled content. The recycled nylon yarns that were produced by Kordsa, has also been certified by Global Recycled Standard, and if also approved by the industry, they will increase the recycled content in a tire by 10%. Customer related Scope 3 emissions % are estimated according to share of these 6 clients in our production volumes. According to LCA results, 20% recycled yarn ratio decreased CO2 emissions by 17%.

Impact of engagement, including measures of success

Safety of a tire requires many qualities to be met. The new technology needs to be tested to prove that it does not restrain any of the safety requirements. In 2021 we have sent this fabric (real size sample for production testing) to one of our tire-reinforcement clients for testing. We have also sent lab-sized samples for lab testing to 7 more clients. As a measure of success, we take the percentage of primary customers engagement. With this project we have reached 80% of our primary customers.

Type of engagement & Details of engagement

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts
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% of customers by number

86

% of customer - related Scope 3 emissions as reported in C6.5

85.4

Please explain the rationale for selecting this group of customers and scope of engagement

86 % of our customers by sales volume are tire manufacturers with targets to reduce the rolling resistance of their products, which in turn will reduce the fossil fuel consumption of vehicles and reduce their GHG emissions. Our products are one of the three main components of tires, and in order to reduce the rolling resistance of the final product, our customers also need to have lighter fabrics in their tires. We constantly invest on R&D projects to contribute to the targets of our customers, with the aim of developing products that will reduce the rolling resistance of the final product. We organize innovation days with our customers in order to discuss these R&D projects and to collaborate on development of these innovative products. Customer related Scope 3 emissions % are estimated according to share of tire-reinforcement clients in our production volumes. (Employee commuting, business travel and downstream leased assets are not included in the customer related scope 3 emissions % calculations)

Impact of engagement, including measures of success

These engagement activities are seen as a major success, as we are able to reach our main tire customers and share the technologies and developments with them. We are also receiving positive feedback from our customers regarding these innovation and R&D projects. Every year we run innovation meetings to discuss about emission reduction technologies, with approximately % 86 of our customers; both tire manufacturers and composite customers.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

While striving for sustainable growth at Kordsa, we aim to render the benefits we create for all of our stakeholders. Kordsa annually publishes its Sustainability Report as part of which, periodic stakeholder engagements are held via one-on-one meetings and workshops in order to regularly update Kordsa's material sustainability topics. This engagement covers our key stakeholder groups; employees, customers, investors, shareholders.

The engagement activities during 2021 is listed below.

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

Additionally, to be able to maintain active communication with its value chain covering sustainability topics such as climate change and water management, Kordsa actively participates in Business Council on Sustainable Development (BCSD Turkey). Measure of success for value chain engagement covers the continuation of our communication efforts. As a result of our performance disclosure and direct as well as indirect engagements, we continued our success to be in the BIST Sustainability Index (BIST SI). We measure our success on value chain engagements regarding sustainability (including climate-related) performance via maintaining our position in the BIST SI.

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

In the 48-month period of the PolynSPIRE project, three innovation pillars covering the TRL7 level will initiate and it is expected to recycle/reuse 60 kilotons of plastic waste, to reduce 300 kilotons equivalent CO2 emissions, and to save 70 kilotons oil equivalent fossil resources. Targeted impacts in 20 years are treating annually 4.5 million tons of residue, 45 million tons of CO2 emissions reduction per year and 10 million tons of oil equivalent of fossil fuel recovery per year.

The polynSPIRE project, which consists of three periods in total, completed its second period as of September 2021. Relevant updates were shared with the European Union.

Kordsa fulfilled its lab-scale validation duty by conducting polymerization studies of adipic acid and hexamethylene diamine obtained by chemical recycling of PA66 polymer with microwave technology by the relevant technology development partners in 2021. Within the scope of project, validation studies were carried out with a 100 ml polycondensation reactor purchased by Kordsa. The obtained polymers were characterized and the stakeholders who took on the task of developing the technology were informed that there was a need for improvement, especially in the purification stages of the monomers.

For the next validation process, monomers from semi-industrial scale and industrial scale depolymerization studies are expected.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Climate-related disclosure through a public platform

Description of this climate related requirement

Sustainability and Supply Chain Departments conducted a CSR risk mapping of Kordsa's suppliers based on criteria such as procurement category and total spend. The results of the Kralic Matrix analysis conducted by the supply chain department were also used in this study which allows Kordsa to establish priorities for its supply chain strategy on CSR issues. As a result the scope of this procedure was established as follows; Suppliers in the - Raw Material - Energy - Service - Transport - Packaging Material - Spare Parts categories within Kordsa's supply chain with an annual spent volume of \$500,000 or more are within the scope of the sustainability assessment. Kordsa evaluates its suppliers in line with the following sustainability criterias; - Governance - Social Issues - Environmental Issues (Including energy and carbon management) - Sustainable Supply Chain Raw material suppliers with an annual spending volume of \$500,000 or more are expected to conduct "Ecovadis Sustainability Assessment". Energy, Service, Transport, Packaging Materials, Spare Parts suppliers with an annual spent volume of \$500,000 or more are required to participate in the "Kordsa Supplier Annual Sustainability Survey". Sustainability audit of raw material suppliers are carried out by Kordsa's authorized personnel within the scope of the "Annual Supplier Audit Plan" created by the Quality Department. Sustainability results have a weight of 15% in the total audit scoring.

% suppliers by procurement spend that have to comply with this climate-related requirement

86

% suppliers by procurement spend in compliance with this climate-related requirement

72.5

Mechanisms for monitoring compliance with this climate-related requirement

First-party verification

Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage indirectly through trade associations

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

We have signed the commitment letter to SBTi and our pledge to SBTi is also referred in page 19 of our annual report.

Kordsa_Annual_Report_EN_2021-2.pdf

Business-Ambition-Pledge_V1.4 Kordsa.pdf

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

Kordsa's climate change strategy is very well known by our employees, especially the Management Level employees as they are the first to be briefed about any changes/development in the company strategies. All communication activities to be carried out with individuals, organizations and state institutions outside the company are determined by Kordsa's company rules. According to these rules, all the information that will be presented outside of the company is subject to approval of Corporate Communication Department. From Management levels to our Board Members, whenever someone is going to represent Kordsa in any kind of event or meeting sustainability-related topic, their presentations are either prepared or approved by the Sustainability Department. The Sustainability and Corporate Communication Departments work in harmony for such events or meetings. Our communication activities for sustainability-related topics are led by our Sustainability Department which is responsible for all our sustainability, climate change and water related studies, from developing strategies to preparation of our CDP report and water policy. As all of these communication activities go through both Corporate Communication and Sustainability Departments there is very little risk that there will be any kind of activity that conflicts with our water policy/water commitments. However, if such a conflict occurs, the event is taken to our ethics board, and the employee receives a warning from our CEO. Also, a suitable corrective action is implemented immediately upon recognition of such a conflict.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify (TUSIAD)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

One of TÜSIAD's core focus areas is climate change. TÜSIAD has a roundtable called "The Energy, Environment and Climate Change Roundtable", Leader of which is Kordsa's Board Chairman. This roundtable aims to contribute to embedding sustainable development principles and to the environmental protection and spreading out the principles of low carbon economy into the business practices. There is a specific Environment and Climate Change work space that works under this roundtable. As our Board Chairman is the Leader of this roundtable, we can proudly say that our position is consistent with TÜSIAD's and we publicly promote their current position. The funding figure provided to TÜSIAD only includes membership fees, we do not provide any other funding.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

9515

Describe the aim of your organization's funding

The funding figure given above is paid in 2021 for membership fees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

Kordsa_Annual_Report_EN_2021-2.pdf

Page/Section reference

Pages 8, 17-21 Our CDP report is also linked to our annual report (Page 19)

Content elements

Governance

Strategy

Risks & opportunities

Emission targets

Other metrics

Comment

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	Kordsa's Board of Directors and Executive Board has responsibilities related to ESG (Environmental, Social and Governance) Biodiversity falls under Environmental pillar of ESG and is among the responsibilities of the BoD and Executive Board. Some of the responsibilities include: ensuring compliance with biodiversity related regulation and reviewing and and approving investment decisions after thoroughly examining the Environmental Impact Assessment reports of the proposed investments.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to No Net Loss	SDG

C15.3**(C15.3) Does your organization assess the impact of its value chain on biodiversity?**

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	Yes, we assess impacts on biodiversity in our upstream value chain only	<Not Applicable>

C15.4**(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments	<Not Applicable>

C15.5**(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?**

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.6**(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity Biodiversity strategy	Our Biodiversity related commitments, impacts and policies are published on our website at: https://www.kordsa.com/en/sustainability/detail/biodiversity-conservation/125/86/0 A pdf version of the related page of the site is also attached. Biodiversity Conservation.pdf

C16. Signoff**C-FI****(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

Our I-REC certificates are attached.
KORDSAIREC -2022-0218-1331-48.pdf
IREC_Kordsa_2021_2.pdf

C16.1**(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	CEO	Chief Executive Officer (CEO)