

## C0. Introduction

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### C0.1

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

Koluman is established in 1965 as the main dealer of Mercedes Benz Turk A.Ş and to provide sale and after-sale services of Mercedes brand vehicle as well as being a shareholder of Mercedes Benz Turkey. Koluman Automotive Industry Inc. is one of the companies of Koluman Holding which is the authorized upper structure producer of Daimler in the 80.000 m2 closed area which is placed in the Tarsus, Mersin. Koluman process upper structure manufacture with his own brand. The products are semi-trailers for transport and logistic, also some public vehicles such as road sweepers, some construction vehicles such as concrete pumps and tactical wheeled vehicles within military projects on the point of used defence industry. Koluman is also making some contract manufacturing with Schmitz for trailers, and importing concrete pumps from Junjin.

### C0.2

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#### (C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

##### Reporting year

###### Start date

January 1 2022

###### End date

December 31 2022

##### Indicate if you are providing emissions data for past reporting years

Yes

##### Select the number of past reporting years you will be providing Scope 1 emissions data for

1 year

##### Select the number of past reporting years you will be providing Scope 2 emissions data for

1 year

##### Select the number of past reporting years you will be providing Scope 3 emissions data for

### C0.3

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

Turkey

### C0.4

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

TRY

### C0.5

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#### (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

### C-T00.7/C-TS0.7

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#### (C-T00.7/C-TS0.7) For which transport modes will you be providing data?

Heavy Duty Vehicles (HDV)

### C0.8

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**(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
No	<Not Applicable>

**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 or committee	Responsibilities for climate-related issues
Board Chair	Accountability on climate-related issues start at the top, with the Board of Directors (BoD). All of the final decisions related to climate change issues are approved by the Board of Directors, which is led by Chairman of the Board. Some of these responsibilities include approval of targets, budgets for emission reduction initiatives, management plans of identified risks and opportunities etc. Board Chair attends to climate change related forums as a speaker presenting the studies in Koluman.

**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	<ul style="list-style-type: none"> <li>Reviewing and guiding annual budgets</li> <li>Overseeing major capital expenditures</li> <li>Reviewing innovation/R&amp;D priorities</li> <li>Reviewing and guiding strategy</li> <li>Overseeing the setting of corporate targets</li> <li>Monitoring progress towards corporate targets</li> <li>Overseeing and guiding public policy engagement</li> </ul>	<Not Applicable>	<p>Accountability on climate-related issues start at the top, with the Board of Directors (BoD). Board Members are informed regularly on climate-related issues in the form of global trends as well as corporate performance, business plans, risks and opportunities. CEO (General Manager) has the executive power for important issues such as strategy, risks/opportunities, targets, etc.</p> <p>Committees have been set up to assist the BoD with proper fulfillment of its duties and responsibilities.</p> <p>The Sustainability Committee (Green Team) is formed to help the BoD oversee and effectively manage climate and sustainability-related issues with a holistic approach. The Sustainability Committee (SC) is led by CEO. SC consists of management-level members appointed by top management.</p> <p>SC is responsible not only for formulating the Koluman Otomotiv's sustainability strategies, road maps, objectives, policies, and reporting criteria including climate-related issues, but also being a perfect example for all Koluman group companies about dealing with sustainability issues which provides integrating sustainability efforts in line with Koluman's priorities.</p> <p>SC meets every two weeks and the CEO reports the results to the BoD on a monthly basis.</p> <p>Moreover twice a year, more comprehensive meetings including all managers and Bod are also carried out.</p> <p>BoD reviews, guides and approves business plans and strategies.</p> <p>Changes in emissions data are also reported to the BoD monthly and annually.</p> <p>The consolidated budget of Koluman is approved by the BoD, hence the BoD also approves all of the investments of Company.</p>

**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	<ul style="list-style-type: none"> <li>One of the Board Member is Koluman Group's CFO who is responsible for climate related- issues.</li> <li>Knowledge on sustainability issues including climate change is used as criteria.</li> </ul>	<Not Applicable>	<Not Applicable>

**C1.2**

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

**Position or committee**

Chief Executive Officer (CEO)

**Climate-related responsibilities of this position**

Assessing climate-related risks and opportunities  
Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Reports to the board directly

**Frequency of reporting to the board on climate-related issues via this reporting line**

More frequently than quarterly

**Please explain**

Our CEO, who reports to the BoD, works with the Executive Team (ET) to determine our company's environmental, social, and governance (ESG) priorities, risks, and opportunities.

**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.  There is an incentive platform called Kaizen System in Koluman which includes the presentation of the continuous improvement studies on both field and office side. Kaizen studies have different segments and one of them is "Green Kaizen" segment. In the Green Kaizen segment, all climate change related improvements are evaluated such as carbon emission savings, energy savings, water savings, paper and tree savings via digitalization studies, etc.

**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**

Chief Executive Officer (CEO)

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus – set figure

**Performance indicator(s)**

Reduction in absolute emissions

**Incentive plan(s) this incentive is linked to**

Short-Term Incentive Plan

**Further details of incentive(s)**

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 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.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

**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	Our short-term horizon is defined as 1 year which is the period that covers of our detailed OPEX and CAPEX plan for both corporate management and risk management.
Medium-term	1	5	1 to 5 years is considered as medium-term for our Company.
Long-term	5	35	Any time horizon over 5 years is considered as long-term for Koluman. This is applicable to all business aspects including risk management. Moreover, long-term climate-related risks are evaluated on a scenario basis consistent with the horizons established by the international organizations such as IPCC and IEA covering 2030 and 2050 as crucial milestones.

**C2.1b**

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

The impact level of any risk and opportunity on our business, is determined by the financial and non-financial evaluation criteria. The activities of Koluman are taken into account in terms of external and internal contexts when the areas in terms of which risk impact will be evaluated (e.g. financial, legal, reputation and operational) and the qualitative and quantitative indicators for risk assessment criteria are determined; the expectations and needs of the external and internal stakeholders are taken into consideration when forming the risk assessment framework.

The risk is assessed to have a substantive impact if:

- Financially; if the risk impact is more than 1.000.000 TRY or critical reputation loss in public opinion or negative appearance in the international media for some time
- Legally; Facing a legal sanction that could result in the company's activity stopping for a period up to 1 week, facing high penal sanctions (e.g. a fine over 500,000 TRY) or important reputation loss in public opinion, short term negative appearance in the international media
- Reputational; Short-term campaign in the national media, regional long-term campaign in against the company or a request from the local media to make a detailed explanation and call for public lighting, facing some penal sanctions (e.g. a fine up to 500,000 TRY)
- Operationally; 1 to 3 days of disruption in operations, events reducing the performance of employees, facing some penal sanctions (e.g. a fine up to 100,000 TRY)

**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**

Company has a Koluman Group based Risk Management and Audit Department reporting directly to the Chairman of the Koluman Group who is also the Chairman of Koluman Automotive Industry. The Compliance Officer in Koluman Automotive Industry is also working closely to this Department but also directly reporting to the Chairman of Koluman Automotive Industry.

The Company has Risk Assessment Matrix. Risk Assessment Audit is annually carried out by the Risk Management and Audit Department. New critical regulations, risks and other compliance subjects are discussed once a month with the participation of the Compliance Teams of the Group Companies with the management of Risk Management and Audit Department of the Koluman Group.

In addition to this, the Company also carries out internal audits twice a year. Nonconformities are reported and actions have to be taken in 7 days which is also a Company KPI.

**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	<p>RELEVANCE: Doing business in-line with current regulations are paramount for Koluman. All laws and regulations related to our activities are identified, monitored and our compliance is constantly assessed by internal auditors, third-party auditors, and local authorities. Compliance measures to these types of regulations can result in an increase of indirect operational costs.</p> <p>EXAMPLE: We perform greenhouse gas calculations, 60 chimney emission measurements in every 2 years, wastewater treatment as per current legal regulation.</p>
Emerging regulation	Relevant, always included	<p>RELEVANCE: We closely monitor the emerging climate-related regulations in all of the countries that we operate in and export our goods to. This gives us a chance to develop our strategy in the light of the new developments and reduce the risks of being exposed to emerging regulation.</p> <p>EXAMPLE: One of the most 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 emissions reductions globally. Implementation of a Turkish ETS scheme and EU CBA, will directly impact our operational expenses.</p>
Technology	Relevant, always included	<p>RELEVANCE: In order to stay competitive and meet our clients demands we almost always rely on technology and our R&amp;D activities. Technological developments are always included in our risk assessments both as a risk and an opportunity.</p> <p>EXAMPLE: For example, in the reporting period, 2,1% of the revenue was dedicated to R&amp;D projects. These R&amp;D projects help us stay ahead of our competition. R&amp;D Projects are also mentioned in C3.3. In 2022, Koluman Automotive has made changes in our production processes within the manufacturing facility to contribute to a sustainable ecosystem, transitioning to environmentally friendly technology. Therefore, it is possible to state that our production technology falls under the "Clean Technology" category compared to similar technologies. As part of this effort, we have made an investment in a new technological fiber laser machine, resulting in both material and energy savings. The optional use of cameras in the laser machine enables the identification of usable parts on flawed materials, allowing for new part cutting. Additionally, robot technology is employed in welding and painting processes, enabling the prevention and reduction of pollution at the source, contrary to routine pollution control. In other words, waste generated during production is minimized through these measures. Moreover, transitioning to robotic systems in painting and welding processes has resulted in a 21% increase in production efficiency. By saving energy and paint, the same task is accomplished in a shorter time with lower energy consumption and higher quality.</p>
Legal	Relevant, always included	<p>RELEVANCE: Non-compliance with all laws and regulations including climate-related ones causes risk which exposes our Company to litigation. Therefore, legal compliance is paramount to Koluman and compliance risks are identified as one of the 4 main risk categories assessed in our corporate-wide risk management system.</p>
Market	Relevant, always included	<p>RELEVANCE: Sectoral as well as market risks are closely monitored by Koluman. Market risks mainly includes risks affecting Koluman's market share and customer relationship management.</p> <p>EXAMPLE: The Market drives the economic indicators of a company and the competition. Any change occurring as a result of changing trends or changing customer preference, may have a significant impact if we are unable to meet enhanced expectations on low carbon products. Considering that, 50% of Koluman Automotive Inc sales is export sales, it is compulsory to comply with the market requirements which are changing highly dependent on climate change issues. The design of the vehicles is changing by using aerodynamic equipment and electrical vehicles to reduce the emission and energy loss. To comply with these changes on time and to catch the market requirements will provide opportunity while not catching the requirements on time creates the risk.</p>
Reputation	Relevant, always included	<p>RELEVANCE: Our brand image and reputation are very important both locally and internationally. Therefore, under our multidisciplinary corporate-wide risk assessment reputational risks are one of the main topics evaluated.</p> <p>EXAMPLE: As part of reputational risks, we expect some pressure due to climate-related issues on our companies that can affect our brand image. Having ambitious targets, our clients tend to get more ambitious with their expectations from suppliers and their products, if we fail to meet their demands, we may lose a significant amount of business.</p>
Acute physical	Relevant, always included	<p>RELEVANCE: Climate-related acute physical risks like storms, floods, extreme weather conditions and their impacts both on Koluman's direct operations (production) and indirect operations (mainly supply chain) are considered as part of Koluman's climate related risk assessments.</p> <p>EXAMPLE: While the impact of acute physical risks can cause disruption in our facilities and cause damage, they can also cause disruption on our supply chain. As for the indirect operations, diversification of suppliers' method is used to always have an alternative supplier in cases of disruption. As an example of acute physical risk, our production facility in Mersin which is under the risk of extreme precipitation and massive floods. In cases of extreme precipitation, this may cause flooding and can damage our facility or cause production disruption. In order to prevent this risk, we have developed Emergency Response Plan to be applied on production site. In addition, the information technology infrastructure systems within Koluman Automotive are kept in a secure room, protected from temperature and external factors. Through the use of backup software, all servers are backed up twice a day, allowing for a seven-day history. An instant snapshot is taken every four hours on the storage unit. Additionally, critical servers within the company are regularly synchronized through the Disaster Recovery Center System via Koluman Holding. In the event of any accidents, natural disasters, sabotage, etc., access to all important servers with data up to 15 minutes prior is possible.</p>
Chronic physical	Relevant, always included	<p>RELEVANCE: If not well managed, climate change is expected to cause drastic chronic physical impacts. It is important for Koluman to understand chronic trends that may impact our facilities globally over time. Chronic physical conditions such as increased temperature and humidity are factored in climate-related risk assessment because processes and the product quality, hence the profitability could be directly affected by these changes.</p> <p>EXAMPLE: Droughts may cause underground water shortages. Increasing water stress due to climate change is a relevant risk for our operations and always include to in risk assessment.</p>

**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**

Decreased revenues due to reduced production capacity

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Our production plant in Mersin is high risky area in terms of flooding.

Extreme weather events, such as floods may affect our direct operations and our suppliers, and create a domino effect for our sales. Floods can cause damage to our production facility.

In the following years, if there is an increase in climate-related events such as floods, there will be production stops and financial losses.

**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)**

9750000

**Potential financial impact figure – maximum (currency)**

29250000

**Explanation of financial impact figure**

We calculated the cost of production stop for 1-3 days.

Our production facility may stop min 1 - max 3 days in case of flood. The cost of a 1-day production stoppage for us is 9.75 million TRY, while the cost of a 3-day stoppage is 29.25 million TRY.

These financial figures include loss of production and losses due to damage to our production lines.

**Cost of response to risk**

10041900

**Description of response and explanation of cost calculation**

Infrastructure and maintenance works (10.000.000 TRY) and insurance cost (41.900 TRY).

We have maintained and cleaned drainage channels and rain gutters on the roofs.

The roof of one of our old buildings has been replaced to prevent water leakage and seepage during heavy rainfall.

**Comment**

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**C2.4**

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**(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**

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**(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**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

In order to benefit from natural light, the roof of the old building (Building No. 3) within the facility has been replaced, converting it into a daylighting system.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

1045960

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

After the investment made in the roofing for lighting, there is an annual saving of 104,596 TRY. Assuming the lifespan of the investment is 10 years, the total gain from this investment would be 1,045,960 TRY.

**Cost to realize opportunity**

112963

**Strategy to realize opportunity and explanation of cost calculation**

Potential companies for the installation of solar power systems on the roofs have been identified, and discussions have begun. The cost of installing solar power systems on the roofs is 112,963 TRY.

**Comment**

Due to being located in a region with predominantly sunny days throughout the year, we have the opportunity to benefit from both solar energy and daylight. The hot water supply in the cafeteria section of the facility is obtained from solar energy. The lighting in the resting areas with gazebos within the factory is achieved through solar energy systems. Koluman Holding has initiated the installation of a Solar Power Plant in the Mersin Region. To make the most of daylight, roof skylights are used, and during the roof replacement investment, roof skylights were chosen to utilize daylight effectively.

Since we are located in a mild climate with limited cold months, heating requirements are minimal and only needed for a short period. Heating is provided through electric energy.

Within the facility, efforts have been made to save electricity and natural gas while contributing to the process of climate change. Additionally, the electricity used is purchased as green energy.

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## C3. Business Strategy

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### C3.1

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

**Row 1**

**Climate transition plan**

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

**Publicly available climate transition plan**

<Not Applicable>

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

<Not Applicable>

**Description of feedback mechanism**

<Not Applicable>

**Frequency of feedback collection**

<Not Applicable>

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

<Not Applicable>

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

This is our second year of reporting. At this year we have established measurement and monitoring of GHG emissions. We have calculated our carbon footprint for 2021 which is our base year. In addition our plan is to prepare and issue Koluman's Net Zero Roadmap that will be aligned with 1.5 °C world within 2 years.

**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	<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
Physical climate scenarios RCP 4.5	Company-wide	<Not Applicable>	We have examined the applicable scenarios and considered RCP 4.5, conducted by the IPCC to investigate a 2-degree Celsius global warming scenario, as a realistic scenario for the impacts of climate change in Turkey. According to the IPCC RCP 4.5. Scenario, emissions will peak 2040-2050. Turkey will face 2 to 3 degrees in Celsius increase in mean temperature during 2013-2040 and up to 4 degrees Celsius in later periods. Increase in extreme weather events, like flooding are also expected. 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. Changes in temperature, water stress and flood risk are among the parameters that we carefully monitor.

**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**

The main focal questions used with the climate scenario analysis were:

- o How the climate change will be affecting the world in short and long term?
- o What developments are needed to avoid risks related to climate change issues?
- o What actions should be taken to meet these developments correctly?
- o What strategies will have the most impact on shaping future performance of our company?
- o Which variables on in the decision-making stages will have a greater effect?

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

Potential business interruption& productivity loss due to physical impacts both direct effects on the organisation's own assets and indirect effects of supply chain& product delivery disruptions are discussed and necessary actions are taken.

**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	<p>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 &amp; opportunities, we are constantly working on R&amp;D projects to advance our existing products and to create new products for emerging markets.</p> <p>These R&amp;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</p> <p>Time horizons covered: Short-medium and long term</p> <p>CASE STUDY:</p> <p>We can explain "aerodynamic trailer" project as an example. In this project, the aerodynamic drag zones generally create a large amount of resistance due to the pressure resistance on the front surface, the wheels, the space between the truck and the trailer and the rear of the trailer. The purposes of this project are both to increase the engine and combustion efficiency and to reduce the resistances that affect the vehicle while driving. Aerodynamic resistance is transmission, pitch, rolling and acceleration resistance. One of the forces acting on the vehicle is the aerodynamic drag force.</p> <p>Aerodynamic drag force becomes important at higher speeds and vehicle performance and fuel consumption are significantly affected. Because the aerodynamic drag force increases in proportion to the square of the speed. Heavy vehicles travel at high speed between cities and travel a lot over the years. As a trailer manufacturer, we attach importance to and closely follow aerodynamic studies to increase vehicle performance.</p>
Supply chain and/or value chain	Yes	<p>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.</p> <p>Time horizons covered: Short-medium and long term</p> <p>For example, one of our raw material is steel which is energy intensive and carbon intensive. Therefore our steel 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 Supplier Assessment System.</p> <p>We assess suppliers with purchasing volume over 1000 Euro annually. and these suppliers are classified Tier-1 Suppliers. 83 suppliers (i.e. raw materials, service) out of 572 suppliers were determined as Tier-1 category. We assess these suppliers 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.</p>
Investment in R&D	Yes	<p>Koluman considers climate-related need to invest in R&amp;D as an opportunity to create new markets and extend the presence on the existing market. In order to capitalize on this opportunity, Koluman dedicates an annual budget to R&amp;D activities.</p> <p>Time horizons covered: Short-medium and long term</p> <p>A case-study of most important strategic decisions (short-term):</p> <p>In the reporting period, Koluman invested around 50.8 million TRY in R&amp;D activities to develop low carbon products with lower environmental impact.</p> <p>To sustain the security of the road, runway, walking way, etc. road and runway sweepers have enormous advantages. As producers of truck-mounted sweepers, according to the power requirement of the superstructure system capacity, diesel engines that are used in superstructure frequently change. As a result of the working principle of these engines, they pollute the environment and cause climate change. Engine manufacturers are struggling to decrease CO2 emissions and it's a tough challenge.</p> <p>Power transmission between the diesel engine and fan, a vital component of sweepers, is done with hydraulic equipment such as hydraulic motor, pump, tank and hoses. Industrial oils, during the production consume natural components and get with chemical synthesis method. In addition to this, hydraulic losses between the engine and the fan, cause the power consumption than required.</p> <p>After all, mechanical, structural design and fluid dynamics analysis done by research and development department engineers is intended to decrease CO2 emission, hydraulic losses and power requirement of the system.</p>
Operations	Yes	<p>For our operations, climate-related risks like emerging regulation (mainly Turkish ETS and EU CBA) have influenced our strategy, to focus more on reducing our GHG emissions. The time horizon covered for these types of risks are short to medium term (0-5 years).</p> <p>An example of major strategic decisions that were influenced by climate-related risks and opportunities is;</p> <ul style="list-style-type: none"> <li>• Mersin production plant will implement ISO 50001 Energy Management System until 2023.</li> <li>• % 100 renewable electricity will be used by 2023 in production facility.</li> </ul>

**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	<p>Revenues:</p> <p>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.</p> <p>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.</p> <p>Time horizon covered: Short-Medium and Long-term</p> <p>Direct Costs:</p> <p>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.</p> <p>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.</p> <p>Time horizon covered: Medium to long-term</p> <p>Indirect costs:</p> <p>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.</p> <p>Time horizon 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 climate transition?**

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

## C4. Targets and performance

---

### C4.1

---

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

Intensity target

### C4.1b

---

#### (C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

**Target reference number**

Int 1

**Is this a science-based target?**

No, but we anticipate setting one in the next two years

**Target ambition**

<Not Applicable>

**Year target was set**

2022

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Location-based

**Scope 3 category(ies)**

<Not Applicable>

**Intensity metric**

Metric tons CO2e per metric ton of steel

**Base year**

2021

**Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)**

0.0538

**Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)**

0.2137

**Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)**

0.2675

**% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure**

100

**% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure**

100

**% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure**

<Not Applicable>

**% of total base year emissions in all selected Scopes covered by this intensity figure**

100

**Target year**

2022

**Targeted reduction from base year (%)**

20

**Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]****% change anticipated in absolute Scope 1+2 emissions**

20

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)**

0.0291

**Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)**

0.0428

**Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)**

&lt;Not Applicable&gt;

**Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)**

0.0719

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]****Target status in reporting year**

Achieved

**Please explain target coverage and identify any exclusions****Plan for achieving target, and progress made to the end of the reporting year**

&lt;Not Applicable&gt;

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

## 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

## 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**

2021

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2021

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

6704.38

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

0

**Target year**

2022

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

25

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

28

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

**Target status in reporting year**

Achieved

**Is this target part of an emissions target?**

Yes, it is part of our Int1 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**

**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**

---

## 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		
To be implemented*		
Implementation commenced*	1	3.26
Implemented*	2	24.15
Not to be implemented		

### 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)**

23.2

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

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

104596

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

112963

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

In order to benefit from natural light, the roof of the old building (Building No. 3) within the facility has been replaced, converting it into a daylighting system.

**Initiative category & Initiative type**

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

**Estimated annual CO2e savings (metric tonnes CO2e)**

0.95

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

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

4917

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

3000

**Payback period**

<1 year

**Estimated lifetime of the initiative**

11-15 years

**Comment**

The lighting in the pavilions located inside the factory is provided by solar energy (utilized for 9 hours).

### C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	Koluman makes detailed annual budgets including a dedicated budget for continuous implementation of energy efficiency projects. In 2022, we have dedicated budget for energy efficiency of around 115,963 TRY for climate-related reduction initiatives.

C4.5

---

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

No

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	No	<Not Applicable>

C5.2

---

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

Scope 1

**Base year start**

January 1 2021

**Base year end**

December 31 2021

**Base year emissions (metric tons CO2e)**

837.87

**Comment**

Scope 1 emissions include stationary combustion, mobile combustion and leakage (loss/leakage) emissions. Calculation has been made by taking into account diesel, natural gas, LPG and gasoline.

Scope 2 (location-based)

**Base year start**

January 1 2021

**Base year end**

December 31 2021

**Base year emissions (metric tons CO2e)**

3325.84

**Comment**

Koluman consumes electricity purchased from the grid-National Network.

**Scope 2 (market-based)**

**Base year start**

January 1 2021

**Base year end**

December 31 2021

**Base year emissions (metric tons CO2e)**

0

**Comment**

Koluman consumes electricity purchased from the grid. Therefore, we don't have any Scope 2 market-based 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)**

71522.31

**Comment**

Emissions from purchased materials have been calculated.

**Scope 3 category 2: Capital goods**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

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

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 4: Upstream transportation and distribution**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**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)**

60.68

**Comment**

Emissions related to waste disposal have been calculated. (Waste water, other type of wastes)

**Scope 3 category 6: Business travel**

**Base year start**

January 1 2021

**Base year end**

December 31 2021

**Base year emissions (metric tons CO2e)**

37.37

**Comment**

Emissions from business travel by road, air and rail have been calculated.



**Scope 3 category 7: Employee commuting**

**Base year start**

January 1 2021

**Base year end**

December 31 2021

**Base year emissions (metric tons CO2e)**

140.93

**Comment**

Employee commuting is done by shuttles, buses and personnel's own vehicles.

**Scope 3 category 8: Upstream leased assets**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**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)**

584.1

**Comment**

Downstream transportation emissions include road transportation.

**Scope 3 category 10: Processing of sold products**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 11: Use of sold products**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**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)**

331.43

**Comment**

It is calculated by considering the recovery/recycling of metal wastes after product use.

**Scope 3 category 13: Downstream leased assets**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 14: Franchises**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 15: Investments**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (upstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (downstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**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)

Other, please specify (Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2021)

**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)**

2331.182

**Start date**

January 1 2022

**End date**

December 31 2022

**Comment**

Category 1 – Direct GHG emissions and removals

1.1. Stationary combustion : 1,530.35 tCO2e

1.3. Process Emissions : 301.78 tCO2e

1.4. Leakage (Refrigerants, Fire Extinguishers inventory) : 455.64 tCO2e

**Past year 1**

**Gross global Scope 1 emissions (metric tons CO2e)**

837.87

**Start date**

January 1 2021

**End date**

December 31 2021

**Comment**

**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 have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report 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.

**C6.3**

---

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

**Reporting year**

**Scope 2, location-based**

3405.022

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2022

**End date**

December 31 2022

**Comment**

We are reporting a location-based Scope 2 emissions figure, resulting from the use of electricity from the grid.

**Past year 1**

**Scope 2, location-based**

3325.84

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2021

**End date**

December 31 2021

**Comment**

Scope 2 emissions in 2021.

**C6.4**

---

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 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)**

78971.02

**Emissions calculation methodology**

Average spend-based method

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

0

**Please explain**

Indirect greenhouse gas emissions from from purchased goods and services.

## Capital goods

### Evaluation status

#### 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

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

### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO2e)

466.04

#### Emissions calculation methodology

Average spend-based method

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

0

### Please explain

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

Well to Tank + Emissions due to electric distribution and leakages.

Since there are IREC certificates for energy supply, 0 was calculated on a market basis, but since there is the use of interconnected electricity grid, it was calculated in this category as distribution and leakage originating emissions could not be neutralized. National grid emission factor and leakage rate were taken into account for the calculation.

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO2e)

1169.28

#### Emissions calculation methodology

Distance-based method

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

0

### Please explain

Upstream transportation and distribution

## Waste generated in operations

### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO2e)

87.66

#### Emissions calculation methodology

Waste-type-specific method

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

0

### Please explain

Waste generated in operations

## Business travel

### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO2e)

47.47

#### Emissions calculation methodology

Distance-based method

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

0

### Please explain

Calculations were made from DEFRA according to the agency information we use for business trips and our own movement breakdown.

**Employee commuting****Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

79.95

**Emissions calculation methodology**

Distance-based method

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

0

**Please explain**

The calculation was made from the DEFRA database by taking data regarding the transportation of the employees to our organization, according to their personal vehicle usage and service locations.

**Upstream leased assets****Evaluation status**

<Not Applicable>

**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****Downstream transportation and distribution****Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

2581.32

**Emissions calculation methodology**

Distance-based method

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

0

**Please explain**

The activity data was calculated from DEFRA according to the start of shipment and transportation methods in the sales list by negotiating with the planning for the transportation organization.

**Processing of sold products****Evaluation status**

<Not Applicable>

**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****Use of sold products****Evaluation status**

<Not Applicable>

**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**

**End of life treatment of sold products**

**Evaluation status**

Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

1725.89

**Emissions calculation methodology**

Waste-type-specific method

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

0

**Please explain**

End of life treatment of sold products

**Downstream leased assets**

**Evaluation status**

**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**

**Franchises**

**Evaluation status**

**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**

**Investments**

**Evaluation status**

**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**

**Other (upstream)**

**Evaluation status**

**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**

**Other (downstream)**

**Evaluation status**

**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**

## 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 CO<sub>2</sub>e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

**Intensity figure**

0.00000235

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO<sub>2</sub>e)**

5736.2

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

2437243000

**Scope 2 figure used**

Location-based

**% change from previous year**

54.79

**Direction of change**

Decreased

**Reason(s) for change**

Change in renewable energy consumption

Other emissions reduction activities

Change in output

Change in revenue

**Please explain**

2022 Scope 1+ Scope 2= 5,736.20 tCO<sub>2</sub>e

2022 Revenue = 2,437,243,000 TRY

2021 Scope 1+ Scope 2= 4,163.71 tCO<sub>2</sub>e

2021 Revenue = 799,741,000 TRY

## 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 CO <sub>2</sub> e)	GWP Reference
CO <sub>2</sub>	2322.119	IPCC Sixth Assessment Report (AR6 - 100 year)
CH <sub>4</sub>	4.495	IPCC Sixth Assessment Report (AR6 - 100 year)
N <sub>2</sub> O	4.568	IPCC Sixth Assessment Report (AR6 - 100 year)

### C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Turkey	2331.182

**C7.3**

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

By facility

**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
Tarsus, Mersin Facility	2331.182	36.954	34.998

**C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4**

**(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.**

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	2331.182	<Not Applicable>	The value of our organization's total gross global Scope 1 emissions in terms of metric tons of CO2e according to the sector's production activity is 2,331.182 tCO2e. Parameters included in the account; emissions from stationary combustion, mobile combustion, process and fugitive gas/leaks. While making the calculations, emissions were calculated by including our organization in the production sector.
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**C7.5**

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

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Turkey	3405.022	1383.756



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)
Tarsus, Mersin Facility	3405.022	1383.756

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Not relevant as we do not have any subsidiaries

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	3405.022	1383.756	
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C-TO7.8

(C-TO7.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.

Activity

Please select

Emissions intensity figure

Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO2e

Metric denominator

<Not Applicable>

Metric denominator: Unit total

% change from previous year

Vehicle unit sales in reporting year

Vehicle lifetime in years

Annual distance in km or miles (unit specified by column 4)

Load factor

Please explain the changes, and relevant standards/methodologies used

C-TO7.8, where OEMs are asked to report a primary intensity metric for vehicles sold in the reporting year. This enables investors and data users to compare the performance of vehicles with a similar purpose, as well as with policy and market trends. According to "CDP Technical Note: Measuring emissions intensity of transport movements", it should be noted that this question only applies to final vehicle producers, not to component manufacturers.

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 in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	1257.96	Decreased	30.21	Koluman utilized I-Rec certified renewable energy with a value of 1,257.96 tCO2e in 2022.
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	2830.45	Increased	67.98	In 2021, Koluman achieved a production of 15,565 tons, while in 2022, the production quantity increased to 81,100 tons.
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

**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 0% but less than or equal to 5%

**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	8454.3	8454.3
Consumption of purchased or acquired electricity	<Not Applicable>	2859	7035.17	9894.17
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>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	2859	15489.47	18348.47

**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	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
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**

Please select

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Other biomass**

**Heating value**

Please select

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Other renewable fuels (e.g. renewable hydrogen)**

**Heating value**

Please select

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Coal**

**Heating value**

Please select

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Oil**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

1660.33

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

The above-mentioned value refers to diesel and gasoline consumption. Diesel is consumed in emergency power systems and as vehicle fuel, while gasoline is consumed in vehicle fuels and fire drills.

**Gas**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

6793.97

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

The use of natural gas is used for heating purposes in the facility.

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

**Heating value**

Please select

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

**Total fuel**

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

8454.3

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

It consists of the use of natural gas diesel and gasoline fuels.

**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	9894.17	7035.17	2859	2859
Heat				
Steam				
Cooling				

C8.2g

---

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

C-TO8.5

---

(C-TO8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

**Activity**

Heavy Duty Vehicles (HDV)

**Metric figure**

**Metric numerator**

tCO2e

**Metric denominator**

Production: Vehicle

**Metric numerator: Unit total**

**Metric denominator: Unit total**

**% change from previous year**

**Please explain**

Metric figure is calculated by using metric numerator as scope 1 and scope 2 CO2e emissions from production, metric denominator as the production tonnage for year 2021. Since it is the first year of reporting, % change from previous year has not been calculated.

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C9. Additional metrics

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C9.1

---

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

C-TO9.3/C-TS9.3

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(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

---

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-TO9.6a/C-TS9.6a

---

**(C-TO9.6a/C-TS9.6a) Provide details of your organization's investments in low-carbon R&D for transport-related activities over the last three years.**

**Activity**

Heavy Duty Vehicles (HDV)

**Technology area**

Infrastructure

**Stage of development in the reporting year**

Basic academic/theoretical research

**Average % of total R&D investment over the last 3 years**

100

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

50789788

**Average % of total R&D investment planned over the next 5 years**

100

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

To sustain the security of the road, runway, walking way, etc. road and runway sweepers have enormous advantages. As producers of truck-mounted sweepers, according to the power requirement of the superstructure system capacity, diesel engines that are used in superstructure frequently change. As a result of the working principle of these engines, they pollute the environment and cause climate change. Engine manufacturers are struggling to decrease CO2 emissions and it's a tough challenge. Power transmission between the diesel engine and fan, a vital component of sweepers, is done with hydraulic equipment such as hydraulic motor, pump, tank and hoses. Industrial oils, during the production consume natural components and get with chemical synthesis method. In addition to this, hydraulic loses between the engine and the fan, cause the power consumption than required. After all, mechanical, structural design and fluid dynamics analysis done by research and development department engineers is intended to decrease CO2 emission, hydraulic loses and power requirement of the system.

Koluman Otomotiv Industry Inc. has signed university-industry collaboration protocols with 13 universities as part of our R&D center.

An example of a project conducted with Mersin University is as follows:

Two out of three projects initiated under the supervision of Prof. Dr. Mustafa Taşkın from the Department of Materials Science and Engineering at Mersin University are focused on the minimization of CO2 emissions related to welding activities. The projects titled "Reducing the Effects of Welding Voltage on Materials" and "Reducing Welding Voltage on Products" aim to reduce both the welding impacts and CO2 emissions, thereby making a positive contribution to the carbon footprint.

In October 2021, at the III. International Defense Industry Symposium, two scientific publications were presented related to these projects. The titles of the publications are "Prevention of Warpage in Hot-Dip Galvanizing of Trailers Constructed with Welding" and "Determination of Welding Parameters in Joining S355J2 Materials for Trailer Manufacturing using MAG Welding Method."

In 2022, the total R&D investment amounted to 50,789,788 TRY. However, for the year 2023, the planned R&D budget increased by 44% to reach 72 million TRY. As of today, the actual R&D expenditure for 2023 has surpassed 90 million TRY, in other words, more than the planned amount has been realized.

**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**

Reasonable assurance

**Attach the statement**

CCF000187 (5).pdf

**Page/ section reference**

Page 1-2-3 of CDP Verification Template.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

### 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**

Reasonable assurance

**Attach the statement**

CCF000187 (5).pdf

**Page/ section reference**

Page 1-2-3 of CDP Verification Template.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

### 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: End-of-life treatment of sold products

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Reasonable assurance

**Attach the statement**

CCF000187 (5).pdf

**Page/section reference**

Page 1-2-3 of CDP Verification Template.

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

---

**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**

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**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, and we do not anticipate being regulated in the next three years

**C11.2**

---

**(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?**

Yes

**C11.2a**

---

**(C11.2a) Provide details of the project-based carbon credits canceled by your organization in the reporting year.**

**Project type**

Wind

**Type of mitigation activity**

Emissions reduction

**Project description**

Koluman utilized I-REC certified renewable energy with a value of 1257.96 tCO<sub>2</sub>e in 2022.

**Credits canceled by your organization from this project in the reporting year (metric tons CO<sub>2</sub>e)**

1257.96

**Purpose of cancellation**

Voluntary offsetting

**Are you able to report the vintage of the credits at cancellation?**

Yes

**Vintage of credits at cancellation**

2022

**Were these credits issued to or purchased by your organization?**

Purchased

**Credits issued by which carbon-crediting program**

Other private carbon crediting program, please specify (Foton)

**Method(s) the program uses to assess additionality for this project**

Consideration of legal requirements

**Approach(es) by which the selected program requires this project to address reversal risk**

Monitoring and compensation

**Potential sources of leakage the selected program requires this project to have assessed**

Upstream/downstream emissions

**Provide details of other issues the selected program requires projects to address**

**Comment**

---

**C11.3**

---

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

No, but we anticipate doing so in the next two years

**C12. Engagement**

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**C12.1**

---

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

Yes, our suppliers

**C12.1a**

---

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

**Type of engagement**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect other climate related information at least annually from suppliers

**% of suppliers by number**

12.9

**% total procurement spend (direct and indirect)**

95.82

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

93

**Rationale for the coverage of your engagement**

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 Supplier Assessment System.

We assess suppliers with purchasing volume over 1000 Euro annually. and these suppliers are classified Tier-1 Suppliers. 83 suppliers (i.e. raw materials, service) out of 643 suppliers (12.90%) were determined as Tier-1 category. We assess these suppliers 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. In the year 2022, the total purchase amount from 683 suppliers was € 104.830.603 while the purchase amount from the 83 suppliers identified as Tier-1 was €100.446.284 which accounts for 95.82% of the total purchase value.

**Impact of engagement, including measures of success**

Considering the size and risk of the supplier, supplier audits are performed to ensure the compliance with commitments and requirements. Outcomes of the audits are shared with suppliers and development of an action plan is requested if necessary and monitored.

We inquire about our suppliers' environmental management systems, their use of green energy, zero waste systems, and carbon footprint calculations. Our goal is to raise awareness among our suppliers through these questions and subsequently encourage their participation in these initiatives.

**Comment**

---

**C12.2**

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

No, but we plan to introduce climate-related requirements within the next two years

**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**

**External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers

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

No, but we plan to have one in the next two years

**Attach commitment or position statement(s)**

<Not Applicable>

**Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan**

Koluman ensures its engagements activities are in line with its sustainability strategy by monitoring these activities via its Sponsors and Green Team members. Koluman's Green Team also has a review on aligning the engagement with the strategy.

**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>

**C12.3a**

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**(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?**

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

Climate Law

**Category of policy, law, or regulation that may impact the climate**

Climate change mitigation

**Focus area of policy, law, or regulation that may impact the climate**

Climate-related reporting  
 Climate-related targets  
 Climate transition plans  
 International agreement related to climate change mitigation  
 Low-carbon, non-renewable energy generation  
 Renewable energy generation  
 Verification and audits

**Policy, law, or regulation geographic coverage**

National

**Country/area/region the policy, law, or regulation applies to**

Turkey

**Your organization's position on the policy, law, or regulation**

Support with no exceptions

**Description of engagement with policy makers**

After draft laws and regulations regarding climate change are published, we review the draft and submit our opinions.

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

<Not Applicable>

**Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

**Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?**

<Not Applicable>

**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 voluntary communications

**Status**

Complete

**Attach the document**

**Page/Section reference**

Page 22-23-24-25 of attached Koluman's 2022 Carbon Footprint Report

**Content elements**

Emissions figures  
 Other metrics

**Comment**

Koluman's 2022 Carbon Footprint Report

**C12.5**

**(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.**

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	We are not a signatory/member of any collaborative framework, initiative and/or commitment related to environmental issues	<Not Applicable>

**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, board-level oversight	Accountability on biodiversity issues start at the top, with the Board of Directors (BoD). All of the final decisions related to biodiversity issues are approved by the Board of Directors, which is led by Chairman of the Board. Some of these responsibilities include approval of targets, budgets for biodiversity related initiatives etc. In collaboration with the Provincial Directorate of Nature Conservation and National Parks, 150 bird nests have been constructed and installed in national parks and nature reserves to preserve biodiversity in 2022.	<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	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

**C15.3**

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

**Impacts on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

**Dependencies on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

**C15.4**

**(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?**

No

**C15.5**

**(C15.5) 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	Yes, we are taking actions to progress our biodiversity-related commitments	Species management

**C15.6**

**(C15.6) 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, we do not use indicators, but plan to within the next two years	Please select

**C15.7**

**(C15.7) 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
No publications	<Not Applicable>	<Not Applicable>

**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.**

**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		Chief Executive Officer (CEO)

**Submit your response**

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

**Please confirm below**

I have read and accept the applicable Terms