

# Welcome to your CDP Climate Change Questionnaire 2022

## C0. Introduction

### C0.1

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

Ford Otosan (Ford Otomotiv Sanayi A.Ş.) is a publicly traded (18%) company, where Ford Motor Company (41%) and Koç Holding (41%) have equal shares. Ford Otosan, being one of the top 3 exporting companies of Turkey since 2004, has achieved 10 consecutive years automotive industry championship and is Turkey's export champion for 6 years in a row. The leadership also continued in 2021 by the export of vehicles and spare parts worth 6.3 billion USD. Ford Otosan, operating in 3 main centers with its Gölcük and Yeniköy Plants in Kocaeli, Eskişehir plant in Eskişehir, Sancaktepe R&D Center and Spare Parts Warehouse in İstanbul, employs almost 13,724 people. Ford Otosan is the most valuable automotive company in Borsa İstanbul. As of year-end 2021, Ford Otosan is the seventh most valuable company on BIST with a market cap of \$6.3 billion.

Ford Otosan has the biggest and most capable R&D organisation of the Turkish automotive industry in Turkey with its R&D engineer staff of 1,688 people. Ford Otosan R&D Center is the global hub for heavy commercial vehicles and related power trains and also global spoke for light commercial vehicle development and diesel power train engineering.

Ford Otosan, established in 1959, with its production capacity of 455,000 commercial vehicles and 70,000 engines and 140,000 power trains by the end of 2021, is the biggest commercial vehicle production center of Ford in Europe. Within the evaluation carried among the plants of Ford Motor Company, Kocaeli and Eskişehir plants are shown as one of the "Best Vehicle Production Centers". Ford Otosan Parts Distribution Center, Turkey's largest parts distribution center with a warehouse covering an indoor area of 30000 m2 is the depot where all of the Company's spare parts, marketing, and sales and after sales operations are managed.

Sancaktepe R&D Center was registered as an R&D Center in December 2014 by the Ministry of Science, Industry, and Technology, becoming Ford Otosan's second R&D Center following Gölcük. Ford Otosan R&D Department, which currently exports engineering services with more than 1,413 engineers, is the biggest R&D organization of the Turkish automotive sector. Ford Otosan holds 126 patents, including 109 in Turkey and 17 internationally by the end of 2021.

Energy efficiency and reduction of greenhouse gas emissions works constitute the most important part of Ford Otosan activities for combating climate change.

The Ford Motor Company and Koç Group's Climate Change Strategy provides our road map in this endeavor. This is why we constantly promote projects aimed at increasing efficiency in every level of our activities.

Our strategies for combating climate change were drawn by "Ford Otosan Climate Change Action Plan and it is harmonized with Green Deal road map.

As a company operating in the automotive industry, we closely follow developments both on the national and international planes; we work towards reducing the impacts of our products and operational processes on climate change. In this regard, our innovation works aimed at developing fuel-efficient vehicle technologies with low emission levels come into prominence. Ford Otosan experiencing changes in the automotive industry. Customer expectations rise higher than ever, dynamics of the transportation sector have also started shifting. This process of change transcends traditional products while environmental sustainability, climate change, and driver & road safety become significant priorities.

We were honored to be recognized as the "Private Company with the Highest R&D Spending" in Turkish-time's survey on "R&D 250, Turkey's Top 250 Companies with Highest R&D Expenditures. We work with an extremely valuable workforce with very high management skills. In 2020, we intensified our efforts in lean business processes, smart production methods, digitizing infrastructure, and culture of innovation, shaping the way we do business to create more value for all our stakeholders. Sourcing energy from renewable sources is our priority. Gölcük Plant, with its Industry 4.0 focused activities, named a "Lighthouse Factory" by World Economic Forum (WEF).

As a result of our successful sustainability performance, we are listed in Borsa Istanbul Sustainability Index, one of the significant indexes consisting of responsible investors, and FTSE4 Good Emerging Indexes and as of 2021 in Bloomberg Gender Equality Index. Furthermore, we disclose our performance to the public by participating in climate and water programs of Carbon Disclosure Project (CDP). In 2021 we joined the global companies that support TCFD.

## C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2021	December 31, 2021	No

## C0.3

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

Turkey

## C0.4

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

USD

## C0.5

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

Operational control

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

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

Light Duty Vehicles (LDV)

Heavy Duty Vehicles (HDV)

## C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	TRAOTOSN91H6

## C1. Governance

### C1.1

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

Yes

#### C1.1a

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

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The CEO as a member of the Board and leader of EC has a direct executive decision responsibility on behalf of the Executive Committee (EC). In the EC Meetings, the CEO has an assessing and managing responsibility on Sustainability Committee's performance that climate related issues are embedded as economic, environmental, energy and social performance indicators. The CEO supports also to the Board Chair with the help of the Board level Committees; Audit Committee, Corporate Governance Committee, Remuneration Committee, Early Detection and Management of Risks Committee and Sustainability Committee. The last one consists of three board members ensuring to manage

	<p>strategic, operational, financial and all other climate related risks and opportunities. All members of the Board are responsible from the economic performance of the company and incorporate climate-related issues by resource allocation when deciding on the strategic plan with the economic performance of the company.</p> <p>Decisions related to climate change made by CEO in the reporting year includes our targets such as reducing carbon emissions per vehicle by 50-55% by 2030 compared to 2017 and become carbon-neutral by 2050; Reducing emissions by 18% by 2023 compared to baseline year of 2017; Reducing emission by 50-55% by 2030 compared to baseline year of 2017.</p> <p>Ford Otosan signed the European Automobile Manufacturers Association’s (ACEA) joint statement on the transition to zeroemission road freight transport, demonstrating its commitment to achieving “0 emissions” in heavy commercial vehicle fleet by 2040 in line with the European Green Deal strategy.</p> <p>In addition to the targets that set in line with the EU Green Deal, the Science-based Targets Initiative (SBTi) that Ford Motor Company defined in 2021 also applies to Ford Otosan. These targets are based on limiting global warming to 1.5°C, as defined by the Paris Agreement. Accordingly, Ford Motor Company is committed to reducing the absolute Scope 1 and 2 emissions by 76% by 2035, compared to baseline 2017 data, and reducing Scope 3 emissions, which include emissions caused by the use of the products sold, by 50% compared to 2019 by 2035.</p>
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## 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	Please explain
Scheduled – all meetings	<ul style="list-style-type: none"> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> </ul>	<p>The Board is reviewing and guiding strategy, major plans of action, risk management policy, annual budget, business plans, setting performance objectives, monitoring implementation and performance of objectives, overseeing major capital expenditures, acquisitions and divestitures, monitoring and overseeing progress against goals and targets for addressing climate-related issues as scheduled. The Board chair incorporates climate related issues including risks and opportunities on most strategic product-based company level decisions. The broader commitment to sustainable business including climate</p>

	<p>Setting performance objectives</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>related strategy is debated and decided by the executive committee (EC) led by CEO who is a member of the Board of Directors. The CEO briefs the Board of Directors about asset level executions. The Executive Committee Meetings realize in weekly periods. Other EC core members who are the Assistant General Managers (COO) report their performances on energy, water, wastes and other environment/ climate related risks &amp; opportunities to the CEO in weekly meetings.</p> <p>Sustainability &amp; Energy Committee leaders brief the EC and EDRM Committee members about the R&amp;O's that may have impact on the Risk Management Policy of the organization. The interaction between the R&amp;D Policy and Company's Sustainability Strategy is discussed in EC meetings by considering global climate related issues, legal issues, governmental relations and other corporate responsibility matters.</p> <p>In 2021, we carried out a comprehensive prioritization analysis study to determine the priority issues in the fields of sustainability. While determining our priorities we included our external and internal stakeholders in the process (business partners, investors, analysts, shareholders, non-governmental organizations, dealers, suppliers, business partners public institutions, media, representatives of consultants/agencies and our colleagues). The climate change related risks, vehicle carbon footprint, low carbon production, electric and alternative fuel vehicles are among the top priorities with other ESG issues.</p> <p>It is aimed to reduce the carbon emissions per vehicle by 50- 55% in 2030 compared to 2017 and to specify the actions within the vision of becoming carbon-neutral by 2050. With the supply of electrical energy from renewable energy, we reduced our Scope -2 emissions from 115,639.18 tons of CO<sub>2</sub>e to 1,791.92 tons of CO<sub>2</sub>e , thus achieving a great emission reduction (113,847.26 tons of CO<sub>2</sub>e). We directly supply renewable energy in order to achieve the targets for energy efficiency and reducing greenhouse gas emissions. In 2021, we purchased 946,317.59 GJ of renewable electricity and we prevented 113,847.26 tons of CO<sub>2</sub> e greenhouse gas emissions. We have</p>
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		documented with internationally valid certificates that our Gölcük, Yeniköy, Eskişehir Plants and Sancaktepe office supply all of their electrical energy from 100% renewable sources as of 2021. I-REC certificates are available.
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## 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
Row 1	Yes	<p>We believe that having members on the Board of Directors who possess a diverse range of competencies, knowledge and experience strengthens the Board's functioning and benefits decision-making processes. The process of being nominated for the Board of Directors membership is not solely limited to gender equality in terms of diversity and inclusion. We evaluate the competencies of candidates by considering various factors, such as knowledge of the industry, management experience, knowledge in ESG matters, crisis management experience, and global and long-term thinking. We do not tolerate any discrimination among candidates on grounds of gender, age, ethnicity, religion, language, race, etc.</p> <p>Members of our Board of Directors are active members of several climate related foundations, associations and initiatives.</p> <p>- The Chair of Ford Otosan; is board member at TUSIAD, an NGO that has different working groups for different industries as well as ESG issues and especially climate and energy.</p>

## C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Chief Operating Officer (COO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

Risk committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Sustainability committee	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

## C1.2a

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

The Board of Directors meets regularly at least four times during the year with the participation of all of its members. At these meetings, all the activities of the company are reviewed and decisions are taken on important matters. All members of the Board are responsible from the economic performance of the company and consider climate-related issues by resource allocation, when reviewing and guiding the strategic plan integrated with energy, environment, product base research and development performance of the company. Strategic and program management responsibility is assigned to relevant Board Committees, consisting of Board Members who ensure the regular internal communication of all the duties. As Ford Otosan we are attending regular monthly planned meetings with our main shareholders - KOÇ Holding and Ford Motor Company.

Audit Committee; meets before the regular meetings of the Board. It reviews the quarterly financial statements and presents opinion to the Board of Directors. The working principles of the committee have been put forth in a written set of procedures. Reviewing and monitoring detailed data about the company's financial status, independent audit and internal control mechanisms and presenting all views and decision drafts to the Board of Directors are among the duties of the Audit Committee.

Corporate Governance Committee; which aims to enhance corporate governance activities and carry out Nomination Committee responsibilities, consists of four members,

Remuneration Committee; which aims to determine benefits provided to executive management, consists of three members,

Early Detection and Management of Risk Committee (Risk Committee); Committee and its members responsibilities are consists of three board members ensuring to manage strategic, operational, financial and all other climate related risks and opportunities which are managed in compliance with company's corporate risk-taking profile. The Committee held 6 meetings within 2021.

The broader commitment to sustainable business including climate change strategy, is debated and decided by the Executive Committee (EC), led by Ford Otosan's CEO who is a member of Ford Otosan Board of Directors. The Executive Committee Meetings realize in weekly periods. Other EC core members who are the Assistant General Managers (COO), report their performances on energy, water, wastes and environment to the CEO, weekly. Actualization of reporting years' climate related targets, are presented and evaluated in weekly "Operating Committee Meetings (OCM)" where the next years' climate related targets, are set up and R&O's are assessed. All the results are reported to Executive Committee.

The Energy Committee Meetings are held 4 times in a year for energy performance and environmental performance evaluation. The head of this committee is the Plant Energy Manager. This Committee comprises of relevant departments representatives who perform energy related legal and operational issues in their own operational field. This organization reports directly to OCM and highlights the cross-cutting importance of environmental, energy and most particularly climate related R&O'S.

At Ford Otosan, Sustainability is guided by the Sustainability Committee. The Committee, which has been in place since 2015, performs for the implementation of the Sustainability Policies. In 2020, Ford Otosan established a new Sustainability Governance Model. At Ford Otosan, the Sustainability Committee manages all sustainability-related issues. The committee is responsible for determining the strategy and policy to improve our sustainability performance in social, environmental, economic, and governance areas, implementation of the strategies and policies, and systematic execution of activities according to plan.

Ford Otosan Sustainability Committee is headed by the General Manager, who also serves as a member of this committee. The committee members include Assistant General Manager (AGM) – Operations and MP&L, AGM – Product Development, CFO, Purchasing AGM, Corporate Communications Director, Human Resources Director, Occupational Health & Safety and Environment Manager, Engineering Development Directors, and External Affairs Director. Investor Relations Manager, Corporate Communications unit is responsible for coordinating the committee's activities. There is a sub-committee working on Climate Crisis.

We are listed in the BIST Sustainability Index and added to FTSE4Good Emerging Markets Index and transparently share our performance with the climate change and water programs of the Carbon Disclosure Project (CDP) and S&P's Global Sustainability Index. In 2021 we joined the global companies that support TCFD.

## 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	Environmental targets are transformed into individual business targets through the scorecard practice and the achieved performances influence the performance base remuneration of employees of all level.

## C1.3a

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
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Chief Executive Officer (CEO)	Monetary reward	Energy reduction target	Environmental targets are transformed into individual business targets through the scorecard practice and the achieved performances influence the performance base remuneration of employees of all level. Ford Motor Company (FMC) discloses long term strategies which are converted to Ford Otosan's long term targets. FMC supports the implementation of renewable energy where the project can be tied to the customer's facility, either directly or through the local distribution utility. Ford Motor Company has a new renewable energy target of 100% by 2035. Ford Otosan has a target to source approximately 946,317.59 GJ of energy from internationally certified renewable energy sources. Performance assessments and decisions in pursuance of Sustainability Strategy and CDP Reporting Management are accomplished, integrated with CEO's targets and reported to the Board and factor into executive compensation through the Balanced Score Card.
Chief Operating Officer (COO)	Monetary reward	Energy reduction target	Energy targets are transformed into individual business targets through the scorecard practice. The achieved performances influence the performance base remuneration of employees of all levels. Ford Motor discloses long term strategies which are converted to Ford Otosan's long term targets. Performance assessments and decisions in pursuance of Energy Road Map are accomplished, integrated with COO targets and reported to the Board and factor into executive compensation through the Balanced Score Card.
Environmental, health, and safety manager	Monetary reward	Energy reduction project	Reduction of ghg emissions and natural source consumption are the emission reduction projects managed by environmental, health and safety manager. The KPI's are transformed into individual business targets through the scorecard practice. The achieved performances influence the performance base remuneration in the managerial level. Ford Motor discloses

			<p>long term strategies which are converted to Ford Otosan's long term targets</p> <p>Performance assessments and decisions in pursuance of Emission Reduction Road Map are accomplished and reported to the executive level and factor into compensation through the Balanced Score Card.</p>
Environmental, health, and safety manager	Monetary reward	Emissions reduction project	<p>Sustainability and CDP Reporting is managed by environmental health and safety manager. The KPIs are transformed into individual business targets through the scorecard practice and the achieved performances influence the performance base remuneration in the managerial level. Performance assessments and decisions are accomplished and reported to the executive level and factor into compensation through the Balanced Score Card.</p>
Risk manager	Monetary reward	Other (please specify) Climate related risks and opportunities	<p>Climate related Risk &amp; Opportunities evaluation is managed by risk manager. The KPIs are transformed into individual business targets through the scorecard practice and the achieved performances influence the performance base remuneration in the managerial level.</p> <p>Performance assessments and decisions are accomplished and reported to the executive level and factor into compensation through the Balanced Score Card.</p>
Other, please specify Central Maintenance And Facility Manager	Monetary reward	Energy reduction target	<p>Performance indicators include CO2 emissions reduction, energy consumption and natural resources consumption reduction, providing support to sustainability reporting. Performance assessments and decisions are accomplished and reported to the executive level and factor into compensation through the Balanced Score Card.</p>
All employees	Monetary reward	Other (please specify) Innovation and leadership	<p>Ford Otosan has started restructuring all its processes using a new perspective that puts innovation and digitization right at the center. We have established an Innovation Committee within our company and a digital innovation platform called the "Idea Factory." We offer employees who work with this</p>

			<p>platform the opportunity to share innovative thoughts and turn them into reality, transforming themselves into corporate entrepreneurs in the process. In addition , within the scope of Green Office Project, the green office tab has been added to the idea factory as the idea category to allow all employees to share their savings ideas in the office environment.</p> <p>Several new strategies were developed last year as part of our vision “To become Turkey’s most valuable and preferred industrial company.” We digitalized processes in all areas. We began training, communication, and redesigning business procedures in order to integrate innovation into our corporate culture and help design our future for climate friendly mobility. The proposals on product improvement and on actions related with energy efficiency and possible GHG emissions reduction have been provided by our employees. Presents have been given to our employees as non-monetary reward for coherent and inclusive proposals.</p> <p>The OKR (Objectives and Key Results) Performance System that we launched in 2020 provides and we continue to implement it every year an opportunity for the employees to set their own goals. The system supports them toward expanding their horizons with the help of several training opportunities to improve themselves throughout the year. The scorecards of managers, team leaders, engineers and experts include targets related to climate change. Pay scale is determined according to these achievements in Scorecard scoring.</p>
<p>Other, please specify Re3 Project Team</p>	<p>Non-monetary reward</p>	<p>Other (please specify) Sustainability goals,energy efficiency &amp; innovation.</p>	<p>We reached the finals in Plastic Recyclers Europe Awards - known as the most important competition of Europe in its field - with the Fan Shroud from Recycled Materials project in the Automotive, Electric &amp; Electronic product</p>

			<p>category.</p> <p>This first product was the start of the RECube Project (Recycle, Reuse, Reduce) at Ford Otosan. In this regard, we paved the way for the production of products that cause less harm to the environment with lower carbon footprint and water consumption, and took necessary steps to make the existing products more environmentally friendly.</p>
Other, please specify Coorporate Communications Manager	Monetary reward	Emissions reduction target	<p>Sustainability Reporting is managed by Coorporate Communications Manager. Several new strategies were developed last year as part of our vision “To become Turkey’s most valuable and preferred industrial company.” We digitalized processes in all areas. We began training, communication, and redesigning business procedures in order to integrate innovation into our corporate culture and help design our future for climate friendly mobility. The proposals on product improvement and on actions related with energy efficiency and possible GHG emissions reduction have been provided by our employees. Presents have been given to our employees as non-monetary reward for coherent and inclusive proposals.</p> <p>The OKR (Objectives and Key Results) Performance System that we launched in 2020 provides and we continue to implement it every year an opportunity for the employees to set their own goals. The system supports them toward expanding their horizons with the help of several training opportunities to improve themselves throughout the year. The scorecards of managers, team leaders, engineers and experts include targets related to climate change. Pay scale is determined according to these achievements in Scorecard scoring.</p>

## 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	2	We define our own time frames according to the life of the assets, the sector base transitions, and the profile of the climate related risks we may face in our geographies. Climate related regulatory, operational and financial planning are conducted over a 2- year time frame in our organization.
Medium-term	2	5	We define our own time frames according to the life of the assets, the sector base transitions, and the profile of the climate related risks we may face in our geographies. Climate related strategic and capital planning are conducted over a 2- 5 years' time frame in our organization.
Long-term	5	30	We define our own time frames according to the life of the assets, the sector base transitions, and the profile of the climate related risks we may face in our geographies. Climate related risks that may have implications over a longer period are conducted over a 5-30 years' time frame in our organization.

#### C2.1b

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

Ford Otosan defines substantive financial impact on its business as the change in operational costs which could occur because of a large impact on the business units affected by climate related physical conditions. Climate related negative reputation risks may have a substantive impact on our customers and shareholders concerns resulting with a loss in profitability and market value.

Risk tolerance of Ford Otosan can be defined as an appropriate level of physical disability to operate in the facility that does not have a significant impact on the company. In Ford Otosan the substantive financial/strategic impact is related with the risk tolerance level and is defined according to financial loss. Revenue loss over \$15 M is considered as substantive financial impact.

The probability of risk is also taken into account during the analysis. The opportunities are evaluated by related departments. If there are new opportunities detected for long-term time horizon, they are included in the annual budget planning after the decisions of Board of Directors.

## 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

The climate related risks forthcoming throughout the value chain are proactively identified and managed considering opportunity arising from these risks. Identification of the risks, implementation of the risk and crisis management plans and identification of the risk-related opportunities is in the responsibility of the Board of Directors.

Early Detection and Management of Risk Committee provides support to the Board of Directors to fulfil its duties. The Committee reports its practices on early determination of risks, measures to be taken regarding the detected risks, and management of the risks to the Board of Directors. The Audit Committee contributes to the activities on risk management through outcomes obtained from the internal audit processes. Practices on the identification, monitoring and management of the risk elements is performed by the Risk Management Team. The Risk Management Team identifies the financial, operational, strategic and legal risks of the company through monthly meetings and monitors them on the risk management map. The Risk Management Division reports on risk assessment and internal inspection to the senior management of the company through the Audit Committee, Early Detection and Management of Risk Committee and the Corporate Governance Committee. The Risk Management Team and Early Detection and Management of Risks Committee (ED&MR) review and finalize all climate related risk analysis. The assessed critical risks to be of Extreme Importance are fulfilled based on the methodology defined in the Corporate Risk Management Procedure.

When the risks have been assessed and documented with their interactions, the prioritization for risk response starts. Risk Assessment, Impact and Probability Form” is used for the prioritization. The studies and results are reported to the EC for the oversight process.

In our organisation; Strategic and Reputation risks (e.g: Product competitiveness, changing customer preferences) are assessed at company and value chain level. Operational, legal, financial, physical, environmental risks (e.g: The increase in energy costs, changes in climate related law and regulations, physical risks) are assessed at asset level. All the risks are identified in the Risk Categories Table. Energy, emissions and target management, material consumption, waste management, water and wastewater management and related legal issues are identified, classified and differed from other risks by The Risk Management Team at asset level. The ED&MR Committee evaluates and prioritizes asset level corporate risks and opportunities; at the end of this process company level R&O are then identified. Risk and opportunity identification, determination and prioritization methods have been defined by this team and published internally. ED&MR Committee integrates the climate related risks and opportunities base on Ford Otosan risk and opportunity scoring methodology. The risks and opportunities are scored (1-5 points) covering strategic, legal/compliance, financial, reputation, operational, technology/innovation and other external factors determined in the Risk Categories Table. Enumerated Impact points are represented by impact description.

All risks and opportunities are evaluated according to impact and probability criteria. The risk (R) and opportunity (O) points are scored by multiplying frequency (P) and impact point (I) for prioritization ( $O=P*I$ ). The risks and opportunities are measured by using a 5x5 matrix of Risk Impact Probability Chart and grouped as low, moderate, high, and extreme. An Impact Strength Classification Chart, consists of five categories, is used for impact analysis. All risks and opportunities are entered into the Risk Inventory Form, measured, and monitored by developing solution strategies. The company’s risk inventory, the number of low, moderate, high, and extreme risks before and after risk mitigation actions are taken, and the action plans regarding high and extreme risks are reported to the Early Determination and Management of Risk Committee at regular intervals. The committee monitors the company risks using risk measurement methods and submits recommendations to the Board of Directors when needed. The opportunities are evaluated by related departments. If there are new opportunities detected for long-term time horizon, they are included in the annual budget planning after the decisions of Board of Directors.

Physical risks and/opportunities: The hail bomb project practice was realized as a consequence of physical risk assessment made by Ford Otosan for the purpose to protect new vehicles in Yeniköy Port in Kocaeli, against hailstorm in the short and mid-term. The project consists of the installation of the shock waves protection system against hail. After a long feasibility and optimization process with financial measures, the Board of Directors decided to the installation of full protection system against hailstorm at Ford Otosan Yeniköy Port. The investment budget was 176,400 \$ in 2018. The drills and other maintenance activities are reported periodically to CEO

Transitional risks/opportunities: Joint Activities with the Startup Ecosystem in Silicon Valley have commenced in the reporting year. “Autonomous & Mobility” groups have

been established by WEF for Industry 4.0 since March 2019. This has given us a chance to meet more than 15 Fortune 500 companies, over 10 Investment Funds and Corporate Investment Funds, and more than 10 Acceleration and Incubation centers about an initiative that creates more than 40 end-technology initiatives on “Autonomous Freight Transport”.

As Ford Otosan, we are focusing on providing smart technologies that will be needed in cities and vehicles of the future. We also contribute to Ford's leadership goal in this area by offering solutions which are environmentally friendly, safe and enhance travel and driving experience. Following the technological transformation in the automotive industry, and in addition to traditional automotive products and services, advanced R&D studies are carried out in the areas of carbon dioxide emissions reduction, connected vehicles, autonomous vehicles, electric vehicles and electrification, and light vehicle technologies. Investments in R&D infrastructure continue aligned with the transitional opportunities in the field of intelligent mobility. As part of our growth strategy for trucks, we achieved a first in Turkey: We started a joint R&D venture with AVL, company that develops autonomous convoy-platooning technologies. In this context, we aim to contribute to the reduction of fuel consumption and carbon emissions from 8% to 15%, and the improvement of driving safety in heavy commercial. In 2018, we launched an R&D cooperation. In the reporting year, we performed tests on the Platooning project and we brought the system to a certain level of maturity.

## 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>Climate change risks due to current regulations are always important for Ford Otosan and the automotive industry overall. For this reason, Ford Otosan always includes this risk type in its risk assessment procedures.</p> <p>In 2019, “Fluorinated Greenhouse Gases Amendment Regulations were added to our company's environmental risk chart. The legislation requires that fluorinated greenhouse gases with a high GWP (Global Warming Potential) be replaced with gases with a lower GWP. In addition, in case of exceeding the threshold values (100t and 500t CO2 eq) of the annual gas quantities offered to the EU market, there is a requirement to register in the system and get a quota. With the quota limitation, it is aimed to reduce the amount of gas that will be allowed to enter the EU market by 69% until 2024 and by 79% until 2030 (the EU's total gas use in 2015 is taken as 100%). In line with this regulation in 2020 all fluorinated greenhouse gases are banned, R22 gas containing equipment are controlled according to the requirements of the regulation. As of 2020, ozone gas filling is banned and periodical maintenance service is not provided. (R22's replacement with new type</p>



		<p>gases is not applied due to 70-80% loss of yield.) In order to comply with that regulation, the units' change has been started in 2019. Therefore, if the equipment fails, it is replaced with new gas. The follow-up is realized and reported to EC by senior executives. As of 2021, another legal obligation directly related to GHG emissions in Turkey is the Regulation on Monitoring, Reporting and Verification (MRV) of GHG Emissions, which is in force since 2014 and applies to emission intensive sectors. Ford Otosan Kocaeli Plants and Eskişehir Plant have been reporting its GHG emissions for their relevant facilities and to comply with the regulation the company have external verification.</p> <p>Ford Otosan's compliance team follow all climate related regulations by using internal and external company-wide communication and all related worldwide information. When current regulation based potential risks are identified, the risks are assessed and documented with their interactions; The prioritization for risk response and reporting starts. Risk Assessment, Impact and Probability Form is used for the prioritization. These ERM studies are reported to the EC. Amendments to the regulations are followed online and by e-mail. The action plan is always started with the initiation of related department.</p>
Emerging regulation	Relevant, always included	<p>For our company, Emerging Regulatory risks are the potential risks representing potential physical and transitional threats such as policy &amp; legal, and technology triggering, increase in costs (carbon taxes or future cap &amp; trade implementation plans) and the write-off for new products and/or facilities.</p> <p>The EU Commission announced the European Green Deal in 2019. Climate Law, EU Industrial Strategy, Sustainable and Intelligent Transportation, Inclusion of transportation in the ETS, Energy, Fair Transition Fund, Financing, Carbon Regulation at the Border, etc. are all part of the plan.</p> <p>Green Deal and CBAM announced in 2021 has the potential to directly affect Ford Otosan, such as border carbon regulations, stricter exhaust and carbon dioxide emission rules for internal combustion engines, stricter energy efficiency, etc.</p> <p>In Phase 2 of the PMR project by MoEUCC, extensive studies were carried out to establish the legal and technical infrastructure for the implementation of the pilot ETS. With these studies, the legal and institutional infrastructure has been established for the implementation of the emissions trading system in Turkey.</p> <p>The National MRV regulation is likely to be revised; which may bring different emission quotas forcing our industry to face a carbon cap allocation. Additional quotas may cause an increase in operational cost. A carbon trading system has emphasized in the "Green Deal Action Plan" published by the Ministry of Commerce in 2021.</p> <p>Ford Otosan is aware that this risk could increase the operational</p>

		<p>expenses in mid- term time horizon. In order to minimize this risk, we are in an active engagement with governmental authorities. The follow-up is realized and reported to EC by senior executives. The climate related detailed R&amp;O's such as MRV or PMR activities are assessed base on the context of the company. The process fulfilled by the evaluation and finalization of climate related critical risks. These risks are always brought into action.</p> <p>Turkish Government is also working on a Climate Law that aims to reduce the country's impact on climate change and references the temperature targets as laid out in the Paris Agreement, namely keeping global warming 2°C below pre-industrial times and additionally support limiting the temperature increase below 1.5°C.</p>
Technology	Relevant, always included	<p>Carbon emissions caused by vehicles are one of the important impact areas of the industry. The vision of being carbon neutral in 2050 in line with the European Union's Green Consensus shows that the automotive industry should accelerate its transformation and play a role in the transition to a low carbon economy. We created Ford Otosan Impact Analysis as part of the European Union Green Consensus. Including other action plans determined by the EU Green Deal commission, we aim to reduce carbon emissions per vehicle by 50-55% in 2030 compared to the 2009 level, and to determine our actions within the scope of being carbon-neutral in 2050, especially in line with this goal. Ford Otosan is aware that; Automated mobility and smart traffic management systems will make transport more efficient and cleaner, for this target Smart applications and 'Mobility as a Service' solutions will be developed. Ford Otosan Climate Change Action Plan; consists of two basic components, products and operations.</p> <p>Investments in R&amp;D infrastructure is always the indicator of our business continuity. A technological risk potential is always present due to the competitors gaining a competitive advantage and alternatives in terms of climate change in the sector. We have three R&amp;D centers, certified by the Ministry of Industry and Technology: Sancaktepe, Eskişehir, and Gölcük.</p> <p>We are developing R&amp;D projects with partners from all around Europe to increase efficiency, use of less resources, and decrease the environmental impact of our customers. There are many Horizon 2020 projects that have started or finalized within 2021.</p> <p>To reduce carbon dioxide emissions in the F-Trucks fleet by 15% in 2025 and 15% in 2030 in line with EU targets, we develop engine and vehicle technologies. Electric road trucks, currently in development at F-Trucks, will have an important role to play in our 2025 carbon strategy for heavy commercial vehicles.</p>

		<p>The most up-to-date technologies for the transition to renewable energy sources (solar wall, wind turbine, daily light system etc.) are being followed. Investment cost of new technologies is added to our risk chart.</p> <p>The potential risk &amp; opportunities related to the products was deducted and assessed with the support of R&amp;O department and discussed in EC and Board level Committee meetings. Monitoring of the risks &amp; opportunities was realized in Board- level, for decision making purpose.</p>
Legal	Relevant, always included	<p>Legal risks for our sector represent big costs for complying with regulation and deviation from our rating performance.</p> <p>The legal issues related to the product are assisted by the homologation team, and the operational legal issues are followed by the environmental team. Two basic directives 443/2009/EC &amp; 510/2011/EC are the regulatory arrangements of EU on CO2 reduction targets with their implementation for all producing industries. Ford Otosan complies with existing legislation such as Directive 1999/94/EC on fuel economy labels in Europe; This directive is not compulsory in our country: There is no labeling system but the CO2 level is calculated and declared by producers. This country specific difference may pose some regulatory, taxation or other market conditions related risks in global and national base. The absence of standardized global criteria for labeling legislation and climate policy may lead to big costs for complying with individual regulations and also may deviate our rating performance. We are working parallel to Ford Europe.</p> <p>The potential risk &amp; opportunities related to this risk driver was deducted and assessed with the support of R&amp;O department, and discussed in EC and Board level Committee meetings.</p> <p>Monitoring of the risks &amp; opportunities was realized in Board-level, for decision making purpose.</p>
Market	Relevant, always included	<p>Analyses of the impacts of possible global market changes is always in our concern when reviewing our Business Plans with our climate goals.</p> <p>Market risks for our sector represent increased R&amp;D costs due to customer behavior/ societal changes and digitization, increased raw material &amp; energy, water costs and uncertainty in market signals</p> <p>Vehicle Fuel Consumption and Emission Levels: Consideration of the environmental impact and the preference of vehicles with low fuel consumption have lead us to focus on the development of new engines and systems for fuel efficiency and the reduction of greenhouse gases arising from the fuel consumption of vehicles. There are different working groups working on the issues as well as international projects that we have the chance to work with different technically competent partners from Europe.</p>

		<p>We aim to increase market share, create new markets, gain competitive advantage, keep customer satisfaction at the highest level and create efficiency within the organization. In addition to changing customer behaviors in the automotive industry, we continue R&amp;D studies on connected vehicles, autonomous vehicles, electric vehicles, electrification, smart production methods, customer experience improvement, digital transformation and smart mobility solutions in order to respond quickly to the technological transformation in the sector.</p> <p>With NEWCONTROL project we provided autonomous repetitive operations in the mine sites for the construction series products of Ford heavy commercial vehicles. With ADACORSA project with a drone system that will work in integration with the NewControl project, various obstacles and efforts were made to provide dynamic information about the positions of the objects, to make the mine site autonomy system safer with more visibility, and to create a communication system that can work with BEYOND5 and the NewControl project.</p> <p>Hence, we contribute to both the reduction of the negative impacts of climate change by ensuring the reduction of greenhouse gases and the assurance of a sustainable consumption and production. The potential risk &amp; opportunities related to these products was deducted and assessed with the support of R&amp;O department, and discussed in EC and Board level Committee meetings. Monitoring of the risks &amp; opportunities was realized in Board-level, for decision making purpose.</p>
Reputation	Relevant, always included	<p>Reputation risks for our sector represent consumer preferences with perception and stakeholder concerns. Climate related reputations risks are taking place in line with other climate change related risks. Formation of new climate related legislation may lead to reputation risks for Ford Otosan if any noncompliance occurs. If competitors in the sector have a technological advantage related to climate change, this would too lead a reputation risk for Ford Otosan.</p> <p>All environmental performance data is shared transparently using channels such as the annual sustainability report, CDP.</p> <p>The potential threats or opportunities are assessed in Board level, for decision making purpose. This risk driver is aligned with Ford Global; it is often tied to other risks such as meeting product emission targets or sales volumes for environmentally friendly vehicles. and it is always under the oversight of board chair.</p>
Acute physical	Relevant, always included	<p>For our sector acute physical risks represent extreme weather events which can result big acute damages to our facilities, operations and products.</p>

		<p>Latest study carried out by an external consultant for Ford Otosan states that the highest level of risk will be water stress. Within the automotive manufacturing sector, water consumption is vital for different processes; surface treatment, washing, rinsing, painting, cooling and machining of tools. It is important to take into account the impact of increasing water stress to Ford Otosan processes. Exposure to other physical risks lie wildfire, cold wave, heatwave floods, storms are lower comparatively.</p> <p>Newly produced vehicles that are kept in the open-air environment are at risk of damage due to extreme weather conditions. We are developing methods to eliminate these risks with annual drills against flood, hailstorm. Study is being carried out on anti-hail system application. The working principle of the anti-hail system; the gas trapped in the combustion chamber of the device, again rises to the atmosphere by making a loud noise from the chute on the device. The explosion of the gas in the compression chamber activates whip-like element and sends a sound beam to the atmosphere. The sound ring trigger a turbulence in the cloud which loses its density and the mature grains turn into rain drops. The stream passing through the factory together with the State Hydraulic Works has been rehabilitated against the flood disaster. The follow-up of this risk driver was realized and reported to EC by senior executives.</p>
Chronic physical	Relevant, always included	<p>For our sector chronic physical risks are extreme weather events which can result in continuous damages to our facilities, operations and products. Big changes in energy management system could cause big operational and infrastructure costs.</p> <p>Due to high temperatures as new normal, there is also a risk in the use of well water due to drought. Waste water recovery projects are also being studied for this risk.</p> <p>There may be problems to supply water resources because of using underground water quota change and allocation in basin management. Besides this, high air temperatures pose a risk to occupational health and safety. Hot weather conditions are affecting employees' health negatively. This can cause the production to slow down or to stop. Counter chronic weather conditions or other illnesses our employees are protected by the precautionary activities of our OHS department. This risk assessment is always updated based on new data and takes into account the risk of exposure to related events.</p> <p>For example, pregnant or chronically ill people are granted administrative leave on very hot days.</p> <p>The follow-up of this risk driver was realized and reported to EC by senior executives.</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.**

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#### Identifier

Risk 1

#### Where in the value chain does the risk driver occur?

Direct operations

#### Risk type & Primary climate-related risk driver

Emerging regulation  
Carbon pricing mechanisms

#### Primary potential financial impact

Increased direct costs

#### Company-specific description

Turkey has signed Paris Agreement and declared the country will be Net Zero by 2053. In 2021 Ministry of Environment, Urbanization (also added Climate Change to its name) have started to prepare a new INDC to fulfil the Net Zero Commitment and plan to finalize it before COP27. Relevant governmental agencies in Turkey are also following up and working on the developments in Green Deal and proposed a roadmap for Turkey within 2021.

The latest negotiations on mitigation and adaptation measures of Paris Agreement will bring potential possibilities of additional regulations coming into force in the mid-term. The Cap and Trade system is internalized by EU-ETS. As a candidate country, Turkey's target is to be ready to the future emission reduction resolutions that the emerging markets will engage. The Implementation phase of this system is now in the agenda of Turkish Ministry of Environment, Urbanization and Climate Change . The phase 2 of PMR project studies with the World Bank sponsorship, started in 2019, and pilot workshops and practices focusing on different ETS designs were practiced with the participating companies.

The phase 2 of PMR project studies with the World Bank sponsorship, was completed with the digital conference held on January 27, 2021. In Phase 2 of the project, extensive studies were carried out to establish the legal and technical infrastructure for the implementation of the pilot ETS.

Ford Otosan is in the scope of MRV. The National MRV regulation is likely to be revised; it may bring different emission quotas forcing our industry to face a carbon cap

allocation. Additional quotas may cause an increase in operational cost. Ford Otosan is aware that this risk could increase the operational expenses in mid-term time horizon.

**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)**

2,913,501.33

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

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

**Explanation of financial impact figure**

Ford Otosan has worked with external consultants on the possible financial risks of enterprise carbon pricing risk in 2021. The lowest average carbon price risk for Ford's operating locations 11 \$/ton CO2 and the highest is 47\$/ton CO2 for the year of 2025. Ford Otosan's MRV covered total Scope1 CO2-e emissions were 61,989.39 tons in 2021. The figure has been approved by a third party and reported to the MoEUCC for medium-term time horizon financial implication is  $61,989.39 \times 47 = 2,913,501.33$  USD.

**Cost of response to risk**

20,000

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

GHG and Energy Management systems are in place in Ford Otosan. In 2021, the transition to the revised system standard was realized. Cost of managing to reduce the magnitude of this risk is approximately 20,000 USD and it is covering the certification costs for establishing the revised ISO 50001:2018 Energy Management System and MRV activities.

In order to minimize the risk, we are in an active engagement with governmental authorities and our partners; Koç Holding and Ford Motor Company for the fulfillment of legislative and regulatory processes. We share our expertise and perspective to the policy making process with the general direction of decreasing CO2 emissions by our own science-based approach.

We also manage this issue by benefiting from significant synergies with Ford Motor Company, emphasizing capabilities and challenges related to energy efficiency at production activities.

The CEO of Ford Otosan assigned the Environmental Committee members to participate the PMR meetings executed by the Ministry (MoEUCC).

### **Comment**

In the OSD (Automotive Manufactures Association) monthly environmental committee meetings, detailed sector-based interviews are always in the agenda with the participation of other automotive companies. Joint collaborations are discussed at this stage for the purpose to assess the risks and opportunities of carbon trading.

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### **Identifier**

Risk 2

### **Where in the value chain does the risk driver occur?**

Direct operations

### **Risk type & Primary climate-related risk driver**

Technology

Substitution of existing products and services with lower emissions options

### **Primary potential financial impact**

Increased direct costs

### **Company-specific description**

Global enforcement on extreme fuel economy or stringent limitations on GHG emissions may drive us to unfavourable market conditions or challenging technology development.

The precautions related with climate change that we adapt could have adverse results on our profits.

### **Time horizon**

Medium-term

### **Likelihood**

Likely

### **Magnitude of impact**

Medium-high

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

No, we do not have this figure

### **Potential financial impact figure (currency)**

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

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



### **Explanation of financial impact figure**

With the developing technologies, the new generation vehicles are expected to consume less fuel and be lighter and more durable. In this respect, we provide the transition to materials that will lighten our vehicles, thus reducing the greenhouse gas emissions of the vehicles. We are also involved in different national/international projects that will enable our customers to reduce their environmental impacts. The product efficiency regulations and standards may have different implications that adversely impact our sales and earnings. For this transitional climate related risk driver; sales based financial impact assessment were realized. Specific confidentiality constraints prohibiting the disclosure.

### **Cost of response to risk**

3,500,000

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

For the transition to lighter materials, the transition to aluminium instead of steel was among our most important steps. Since the joining of aluminium parts could not be realized with conventional manufacturing methods, we established a special manufacturing system in our facilities and provided the transition of our Transit MCA model to aluminium in the hood part. The cost of management is around 3.5 million \$. With this project approx.5 kg weight lost will be achieved in each Transit MCA. Ford Otosan is a leading product development hub within the global Ford organization, and carries out R&D projects as part of product programs. Electric Hybrid Ford Custom, lower emission engines (ecoblue engines) are also part of these R&D projects . The R&D spending on various product development projects that we have worked on in 2021 amounted to USD 50,184,230 before capitalization and USD 101,400,147 after capitalization.

### **Comment**

In order to minimize this risk, we are in an active engagement with governmental authorities, institutes, sector members, our partners: Koç Holding and Ford Motor Company for the fulfillment of regulations and standards. We share our expertise and perspective to the policy making process with the general direction of decreasing CO2 emissions by our science-based approach. We also manage this issue by benefiting from significant synergies and R&D studies with Ford Motor Company emphasizing capabilities and challenges related with future light-duty fuel economy and GHG emission standards.

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### **Identifier**

Risk 3

### **Where in the value chain does the risk driver occur?**

Downstream

### **Risk type & Primary climate-related risk driver**

Emerging regulation

Mandates on and regulation of existing products and services

**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Company-specific description**

Two basic directives 443/2009/EC & 510/2011/EC are the regulatory arrangements of EU on CO2 reduction targets with their implementation for all producing industries, up to 2021. These two directives do not have type-approval legislation, and the EU applies in line with the EU's internationally declared CO2 reduction target. If these targets cannot be achieved as fleet average, there is a firm-based monetary sanction Ford Otosan complies with existing legislation such as Directive 1999/94/EC on fuel economy labels in Europe; This directive is not compulsory in our country. Some Ministries in our country have decided to publish this regulation, although there is no reduction target on this subject. But it cannot come to life. There is no limit value including CO2 limit in our country There is no labeling system but the CO2 level is calculated and declared by producers. This country specific difference may pose some regulatory, taxation or other market conditions related risks in global and national base. The absence of standardized global criteria for labeling legislation and climate policy may pose some costs for complying with individual regulations and also may deviate our rating performance. Within the Green Deal Action Plan published by Ministry of Commerce within 2021 one of the actions is related with expansion of The Turkish Environmental Label in line with EU legislations. Also, the Ministry for EU Affairs has included this issue in its 2015-2019 Strategy Action Plan and expects the Ministry of Science, Industry and Technology to issue these two regulations.

**Time horizon**

Medium-term

**Likelihood**

About as likely as not

**Magnitude of impact**

Medium

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

**Explanation of financial impact figure**

In the 443/2009/EC, 510/2011/EC directives and 2019/631 Regulation, CO2 target values to cover fleet vehicles were specified as of 2021. These regulations, which are valid for EU member countries, have not been published in our country yet so there is no practice for Turkey market

**Cost of response to risk**

1,376,000,000

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

Compliance with different regulation and product labeling standards is an ongoing process in Ford Otosan. The National and EU based legislation is tracked by our Technical Coordination Team and the amendments are reported to the system immediately. Our performance for existing and potential future regulations is ensured by the BSTB emission sub-committee who focus more on project- based emission reduction targets

**Comment**

Cost of management is included in our total R&D costs.  
The work including this risk driver is already underway for the purpose to comply with all related EU regulations, there is no separate cost item.

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**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Chronic physical  
Changing precipitation patterns and types (rain, hail, snow/ice)

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

Water is the primary medium through which we will feel the effects of climate change. Water availability is becoming less predictable in many places, and increased incidences of flooding threaten to destroy water points and sanitation facilities and contaminate water sources. In some regions, droughts are intensifying water scarcity and thereby negatively impacting people's health and productivity. With the existing climate change scenario, by 2030, water scarcity in some arid and semi-arid places will displace between 24 million and 700 million people. If the water scarcity increases in our water basin there could be limitations to the quotas for industry. In the production phases, Ford Otosan uses well water and municipal water as fresh water. In case of any water scarcity triggered by this risk driver, groundwater availability problem may occur. The control of potential extreme weather events in our sites is our first concern to ensure our business continuity. If the scarcity occurs in the regions where Ford Otosan

operates, the utilities department may procure good quality water by providing treated wastewater through treatment system for Kocaeli- Gölcük Facility.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

4,500,000

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

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

**Explanation of financial impact figure**

Purpose of the Project:

\*Wastewater treatment plant effluents, cooling towers blow down waters and water center sand filter backwash water are treated and recycled.

\*The recovered wastewater is converted into external water in the deionized (external) water production system, and the dye house wastewater is planned to be reused in production

If the waste water is discharged into ISU sewer system without any treatment and recovery process the cost will be 4.5 mio \$. This figure was calculated by taking into account the cumulative price increase rate of ISU for discharge water. The expected life time of this project is 20 years.

Project Goal:

The need for alternative water resources as wells are not allowed to be drilled in Kocaeli Plants

\*Achieving 30% water saving target per vehicle until 2030

\* Fulfillment of Ford EU Global Water Target and Koç Group Environmental Strategic Water Targets

**Cost of response to risk**

1,127,100

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

Climate Change Strategies published by Ford Motor Company and Koç Group are the themes directing our works. Feasibility works for wastewater recovery projects will be maintained as a precaution against the diminished water resources

A budget study of 1,127,100 \$ was carried out for wastewater recovery.  
This project includes water auditing, consultant and wastewater recovery turnkey project.  
A 720 m<sup>3</sup> / day recovery facility is planned. The recovery rate is 30%.  
There will be 1,130- 1,200 m<sup>3</sup> / day wastewater input to the facility and 720 m<sup>3</sup> / day will be recovered

### Comment

Feasibility studies for waste water recovery project is in progress. Cost of obtaining clean water from wastewater is our priority.  
In Eskişehir plant 3 more wells have been allocated as precautionary purpose.

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### Identifier

Risk 5

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type & Primary climate-related risk driver

Acute physical  
Heavy precipitation (rain, hail, snow/ice)

### Primary potential financial impact

Other, please specify  
Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations

### Company-specific description

IPCC assessment reports indicate that our country is in a vulnerable location impacted by extreme weather events. Our facilities may potentially be impacted by extreme weather events due to sudden changes such as: Heat waves, floods, hail storms. This extreme precipitation could cause hailstorm seen in recent years. There has been an increasing trend in Turkey's observed temperature and similarly in extreme weather events number since 1997. In reference to Climate Change Projections for Turkey: Three Models and Two Scenarios; Turkish State Meteorological Service reported that heavy rain/floods (26%), wind storm (25%), hail (12%), heat wave (11%), and lightning (4%) were recorded as the most observed disaster respectively in 2015. Global Circulation Model outputs which is produced with RCP4.5 and RCP8.5 concentration scenarios have been used in the study, which are used CMIP5 project and situated in the IPCC 5th Assessment Report. These events may pose risks on the assets in our facilities. The interruption in operational capability may increase our capital and operational costs, decreased production capacity may reduce the revenue. The control of potential extreme and acute weather events in our sites is our first concern to ensure our business continuity. The deployment of specific protection systems and emergency response plan allow Ford Otosan to a reasonable insurance

coverage eliminating big financial implication. In our region, the hailstorm season starts in March and ends in September. The hail bomb project (soundproofing system) practice was realized as a consequence of physical risk assessment made by Ford Otosan for the purpose to protect newly produced vehicles in Yeniköy Port in Kocaeli, against hailstorm. The project consists of the installation of the shock waves protection system against hail.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-high

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

10,843,000

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

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

**Explanation of financial impact figure**

After a region base physical study and risk analysis of the area to be protected, the following risks are detected;

- There will be a repair cost of \$ 10.843 Million on 16,500 vehicles.
- The repair of 16,500 vehicles will take 60 days, 300 vehicles can be repaired on average per day.
- The capacity of domestic transportation by trucks is maximum 800 vehicles at close distance. There is a high risk of production interruption due to the difference between production and shipment during this time.

**Cost of response to risk**

176,400

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

Installation of a protection system equipped with shock wave generator, soundproofing and radar detection system against hail was realized. The system has a protection scope of 80 hectares forming a circumference of 1 km in diameter. After a long feasibility and optimization process with financial measures, installation of full protection system against hailstorm at Ford Otosan Yeniköy Port was achieved. The investment budget was 176,400 \$ in 2018.

**Comment**

The drills are activated base on business continuity plans.

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**Identifier**

Risk 6

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation

Mandates on and regulation of existing products and services

**Primary potential financial impact**

Increased indirect (operating) costs

**Company-specific description**

Bans on using f-gases with certain GWP amounts in certain types of refrigeration and air-conditioning equipment are set to come into force in the EU.

In line with EU F-Gas Regulation as of 2020, all fluorinated greenhouse gases will be banned, R22 gas containing equipment should be controlled according to the requirements of the regulation. Reporting year's Regulation on fluorinated greenhouse gases was added to our company's environmental risk chart. As of 2020, ozone gas filling will be banned and periodical maintenance service will not be provided. (R22's replacement with new type gases is not applied due to 70-80% loss of yield.) In order to comply with that regulation, the units' change was planned for mid-term time horizon. In vehicle air conditioning gases, studies are carried out to use 1234yf gas, which has a much lower GWP, instead of R134A gas.

**Time horizon**

Medium-term

**Likelihood**

Virtually certain

**Magnitude of impact**

Low

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

### **Explanation of financial impact figure**

The planning process was achieved. We cannot have any figure as financial impact since there is a replacement period until 2023.

### **Cost of response to risk**

345,000

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

Test studies have been carried out for the use of R 407 C instead of R 22.  
R 407 C gas is also known to be under the control of R 22 gas.  
Investigations on the replacement of R 32 gas and compressor systems instead of R 407 C was realized.  
We have a forecast that R 407 C gas will be replaced from 500 Euro for each unit.  
In total 589 unit have to be replaced with a total cost of 345,000\$ until 2023.  
In order to comply with the regulation, the units' change was planned since the year 2019.  
Therefore, if the equipment fails, it is replaced with new gas.

### **Comment**

Test studies have been carried out for the use of R 407 C instead of R 22. In order to comply with the regulation, the units' change was planned since the year 2019.

## **C2.4**

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

Yes

### **C2.4a**

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

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#### **Identifier**

Opp1

#### **Where in the value chain does the opportunity occur?**

Downstream

#### **Opportunity type**

Products and services

#### **Primary climate-related opportunity driver**

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

#### **Primary potential financial impact**

Increased revenues resulting from increased demand for products and services



### **Company-specific description**

Ford Otosan is able to transform this risk driver described in Risk:2 to an opportunity. Emerging regulations and market expectations for mobility, drive us to develop new low carbon products and services. Ford Otosan is mentioned with its strong models in the global competition and sustains its commercial success in the future, through the design and innovation works which it conducts in accordance with the product strategies of Ford Motor company. Ford Otosan;

\*Develops new engines, transmissions, mechanical and electronic systems by placing efficient and low-emission vehicle production at the center of R&D and innovation studies;

\*Increase fuel economy and reducing greenhouse gas emissions by developing vehicle technologies with reduced environmental effects;

\* Aim to improve R&D and innovation studies for alternative fuel vehicle production  
In addition, it adopts a green design approach to support the transition to a low carbon economy and reduce the environmental impact of its products. With the logic of green design, it ensures that product designs serve the protection of natural resources, ecosystems, biodiversity, climate, air and water quality, and the efficient use of soil, energy, water and raw materials.

We are involved in projects funded by the European Union, in particular the Horizon 2020 project. We carry out R&D studies on software innovations, recovery of precious metals used in automotive, development of programmable systems for smart vehicles, automotive applications of visible light communication, 5G technologies for assisted, connected and autonomous mobility. The improvements we realize in vehicles indicate that the amount of greenhouse gas emission during the consumption process is decreasing with each passing period. We exhibited our first concept vehicle, F-Vision, designed by Ford Otosan Design Studio with fully electric motor and autonomous driving ability, at Hanover Fair.

### **Time horizon**

Long-term

### **Likelihood**

Virtually certain

### **Magnitude of impact**

High

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

No, we do not have this figure

### **Potential financial impact figure (currency)**

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

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

### **Explanation of financial impact figure**

Financial implications would vary depending on the customer demand and other specific conditions for the advanced technology vehicles. Specific confidentiality constraints prohibiting the disclosure.

### **Cost to realize opportunity**

185,000,000

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

Ford Otosan is a leading product development hub within the global Ford organization, and carries out R&D projects as part of product programs. The R&D spending on various product development projects that we have worked on in 2021 amounted to TL 681 million (2020: TL 552 million ) before capitalization and TL 1.376 million (2020: TL 661 million) after capitalization

Sancaktepe Research and Development Center which was registered by the Turkish Ministry of Science, Industry and Technology as an R&D center, is the largest R&D center of the Turkish Automotive Industry with an indoor area of 38,000 m2 and home to many firsts in Turkey. Virtual Reality (CAVE) Laboratory and Embedded Systems and Software Development (HIL) Laboratory are some of our opportunities that will enable the development of advanced technologies. Thanks to the facilities offered by Sancaktepe R&D Center, Ford Otosan acquired the quality of being the only company capable of designing a whole vehicle from scratch including its engine, internal and external visual design in the Turkish automotive industry. In light of the Koç Innovation Program, we have begun restructuring all our processes in line with a perspective that centralizes innovation and digitization. We are also moving ahead in digital transformation, which is one of our main areas of innovation. Our digital transformation program continues with 17 projects in areas from customer trips to products, from the supply chain to manufacturing, from employees to product development, incorporating the training we provide for our employees.

### **Comment**

Investments amounted to TL 3,457 million, including R&D spending for new projects and activated product development costs as part of the typical activities undertaken every year. Ford Otosan is the 7th most valuable company on BIST with a market cap of \$6.3 billion.

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### **Identifier**

Opp2

### **Where in the value chain does the opportunity occur?**

Upstream

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

Development of climate adaptation, resilience and insurance risk solutions

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

For automotive manufacturers, the prerequisite for business continuity, quality, efficiency and customer satisfaction is the existence of a developed value chain. Our suppliers and dealers play an important role in our large value chain. Safety and reliability of our products are the fundamental priorities for us, in changing climate conditions. We first ensure the compliance of our vehicle designs with all the legal regulations of the markets where they are used. Ford Vehicle Safety Design Guideline Principles and Safety Standards have been developed across the industry. The Supplier Identification and Evaluation Questionnaires were prepared and send to suppliers for the purpose to collect data about their environmental management system, including climate related answers. We contribute to the development of our suppliers with five different audits and field visits. In 2021, we designed the Supplier Sustainability Evaluation and Development Program to serve our vision. We aim to have suppliers identified as part of the program fill out Sustainability self-evaluation survey, complete self-evaluation process and increase their awareness.

For the critical suppliers, we identify their risk level through data verification and on-site audits via independent audit organizations. We prepared “Supply Chain Compliance Policy” and “Conflict Minerals Policy” and published them on our website so that we can convey our Sustainability Policy to the suppliers. Supplier trainings were planned to share information and the best practices within environmental, social, economic framework and on carbon transition program. This training is planned to be provided for all the suppliers in the next period. Key topics in the training contents include; sustainability within the scope of environmental, social, economic and carbon related management.

- Q1 audits: Our main audits through the Q1 - Number One in Quality certification system.
- Capacity audits: Audits within the scope of Ford Motor Company global capacity audits.
- Production issues: Field visits to resolve any problems and challenges suppliers face during production.
- Performance development: Auditing and performance development based on certain criteria by identifying suppliers that are open to improvement through Ford Motor Company global system.
- Risk management: We take actions to prevent possible risks in areas such as natural disasters, fire and union-related risks by visiting suppliers.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

High

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

**Explanation of financial impact figure**

Our expectation is “sales volume increase in the future” For the time being it is difficult to estimate financial implications based only on climate change issue.

**Cost to realize opportunity**

0

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

We work to disseminate our sustainability understanding throughout our supply chain. One of Ford Otosan's priorities is to improve the capacity and awareness of all its stakeholders, especially its suppliers. We encourage our suppliers to develop systems and practices in primary sustainability fields such as quality, efficiency, human rights, working environment and environmental performance. We include these expectations in our purchasing agreements and ensure their active monitoring. All our supply chain processes are managed and over sighted by Purchasing Assistant General Management and Material Planning and Logistics Assistant General Management units. Processes are carried out within a model based on strategic objectives at the level of responsible directors reporting to these units. Obtained performance results are reported to executive management. We can also differentiate our products by conducting the supplier certification practice that involves training and auditing activities, in order for sustainability issues to be adopted by our dealers and suppliers. In this way, we are implementing the Q1 quality management system certification implemented by Ford Motor Company worldwide.

**Comment**

The cost is embedded into the procurement department's activity costs.

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues through access to new and emerging markets

**Company-specific description**

Ford Otosan, the largest commercial vehicle production hub of Ford in Europe, manufactured 369.027 vehicles in 2021. We achieved a 76% overall capacity utilization rate. Ford Otosan accounted for 27% of Turkey's total vehicle production and 71% of commercial vehicle production. In the domestic market, Ford Otosan aims for profitability in passenger cars and profitable growth in commercial vehicles where it is a local manufacturer.

DCML and FON projects have been shortlisted for the Henry Ford Technical Awards, which are given annually by Ford Motor Company to advanced technological studies and projects. Ford Trucks reached an all-time high market share of 29.8% in the domestic market in 2021.

As a result of the tests conducted under customer use conditions, a fuel consumption saving of 3.5% was achieved compared to our 1848 T model truck. The two most important components of this improvement are aerodynamic improvements and the introduction of predictive cruise control (PCCM). It is possible to achieve up to 5% fuel consumption under different conditions with the cruise control system. In 2019 we developed the joint R&D venture with AVL, company that develops autonomous convoy-platooning technologies. In this context, we aim to contribute to the reduction of fuel consumption and carbon emissions from 8% to 15%, and the improvement of driving safety in heavy commercial vehicles for intercity transportation.

**Time horizon**

Short-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

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

No, we do not have this figure

**Potential financial impact figure (currency)**

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

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

### **Explanation of financial impact figure**

Our expectation is "sales volume increase in the long term"

For the time being it is difficult to estimate financial implications based only on climate change issue.

### **Cost to realize opportunity**

185,000,000

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

Following the technological transformation in the automotive industry, and in addition to traditional automotive products and services, advanced R&D studies are carried out in the areas of carbon dioxide emissions reduction, connected vehicles, autonomous vehicles, electric vehicles and electrification, and light vehicle technologies. Investments in R&D infrastructure continue.

In 2019 we developed the joint R&D venture with AVL, company that develops autonomous convoy-platooning technologies. In this context, we aim to contribute to the reduction of fuel consumption and carbon emissions from 8% to 15%, and the improvement of driving safety in heavy commercial vehicles.

In Ford Trucks, the new F-Max truck, cost the company a total of \$ 185 Million. (The share of 500 PS engine is 2.5 Million \$). Ford Trucks' new tractor F-MAX, received "2019 International Truck of the Year" award, which was followed by more truck of the year awards in Russia, Austria and Slovakia.

### **Comment**

Following the technological transformation in the automotive industry, and in addition to traditional automotive products and services, advanced R&D studies are carried out in the areas of carbon dioxide emissions reduction, connected vehicles, autonomous vehicles, electric vehicles and electrification, and light vehicle technologies.

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### **Identifier**

Opp4

### **Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Products and services

### **Primary climate-related opportunity driver**

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

### **Primary potential financial impact**

Increased revenues resulting from increased production capacity

### **Company-specific description**

Global Lighthouse Network consists of advanced manufacturers that are showing leadership in applying the technologies of the Fourth Industrial Revolution to drive operational and environmental impact. The Network brings together the most advanced factories in the world for a cross-company learning journey. They serve as beacons to guide others in overcoming challenges in upgrading systems and applying cutting-edge technologies such as artificial intelligence, big data analytics and 3D printing. Members of the Lighthouse Network share use-cases and insights through real and virtual factory visits, incubating new partnerships to accelerate technology adoption and dissemination in manufacturing, and transforming the business models by which they operate.

Through the projects carried out since 2015, Ford Otosan's Gölcük Plant was named a Lighthouse Factory by the World Economic Forum (WEF) and added to the "Global Lighthouse Network" in 2019.

**Time horizon**

Long-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

100,000

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

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

**Explanation of financial impact figure**

Financial implications of this opportunity is in the evaluation phase.

This opportunity has the potential to increase our revenue in 10 years and will have an operation lifetime extending through 2030. In the long term, the benefits of this opportunity are:

6% increase in vehicle production capacity

47% decrease in die manufacturing time

31 % increase in die manufacturing capacity

45% improvement in employee engagement over 4- years

9 % decline in robot breakdowns with Robot Analytics Systems

\$100 K savings with predictive maintenance system

1.7% decrease in electricity consumption per vehicle

4.9% Reduction in spare parts consumption for machinery and equipment

1.3% kWh/vehicle reduction in compressor power consumption

### Cost to realize opportunity

0

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

In addition to the competition, 5 years of R&D was carried out within the scope of the transitional period.

Through the projects carried out since 2015, Ford Otosan's Gölcük Plant was named a Lighthouse Factory by the World Economic Forum (WEF) and added to the "Global Lighthouse Network" in 2019.

### Comment

Ford Otosan Shares Are Traded In The Following Market And Included In The Following Indices:

BIST KOCAELI / BIST METAL PRODUCTS, MACH. / BIST 30 / BIST 100 / BIST 50 / BIST INDUSTRIALS / BIST STARS / BIST DIVIDEND / BIST DIVIDEND 25 / BIST SUSTAINABILITY INDEX

## C3. Business Strategy

### C3.1

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

Row 1

#### Transition plan

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

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

In 2021, Ford Otosan initiated its Carbon Transition Project in order to pursue ambitious decarbonization targets aligned with global initiatives. We are currently working on committing to target years determined by the Paris Agreement and the SBTi (2050). We have been working with external consultants. Within the scope of the work there are benchmark against other companies, review current and emerging regulations, develop scenarios, and perform a technology assessment to establish a decarbonization roadmap and commit to Net-Zero. During this project, climate related risks and opportunities will be identified, assessed and action plans will be developed for the response.

Ford Otosan run scenarios in which the 1.5 degree limit is exceeded and physical impacts of climate emergency are increased in frequency and magnitude. We develop adaptation and risk mitigation actions to prepare for such scenarios.

We have already committed to becoming net-zero by 2050. So, we are taking the steps towards a future that aligns with a 1.5 degree World. Our transition plan is still being



developed and will be publicly disclosed within 2 years. Moving forward, Ford Otosan is working on to identify key improvement areas on our Net Zero Emissions target and address the remaining gaps.

## 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	
Row 1	Yes, qualitative and quantitative

## 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
Transition scenarios IEA SDS	Company-wide		<p>Till last year Ford Otosan engaged with FMC, the mother company’s scenario base analysis. In 2021 we worked with external consultants to evaluate the physical risks of the companies relevant regions including facilities, main suppliers, customers. We have used high spatial resolutions to be able to assess the risks and opportunities more accurately.</p> <p>We are still reviewing publicly available climate scenarios. We used transitional (IEA SDS) scenarios in qualitative analysis.</p> <p>To help reduce the GHG emissions associated with the use of our vehicles, we are committed to make more efficient, lower-impact vehicles and technologies accessible at scale such as weight reduction, advanced power train options, electrical system improvements, new engine / transmission technologies by evaluating the use of lower carbon fuels while promoting Eco-driving through training, information and vehicle technology. The review of the vehicle development plans to assess the alignment with the goals to reduce CO2 emissions over the long term is our priority.</p> <p>Aligning with our parent company’s business, Ford Otosan is investing in vehicle electrification and connectivity, which will facilitate long-term reductions in CO2 emissions. In line with the scenario analysis conducted and Green Deal, our ambition is to reduce carbon emissions per vehicle by 50-55% by 2030</p>

			<p>compared to 2017 and become carbon-neutral by 2050 company-wide. Using the ConneCTruck application we offered in F-MAX in 2018 - the first connected heavy-duty commercial vehicle in Turkey – our customers can keep track of the information about their vehicles on their screens. With ConneCTruck, we also offer services such as map-supported speed control, remote diagnostics and software updates. We aim to provide customers with new services not only during sales and after sales, but throughout the life of the vehicle in accordance with digital developments.</p> <p>In the qualitative analysis, the key considerations of assumptions were: Price of key commodities/ products &amp; LCA thinking, R&amp;D, technology, subsidies for fossil fuels, assumptions about CO2 price via trading scheme, energy demand and mix, temperature increase relative to CO2 increase. Business Impacts/Effects are still in study phase for different areas such as earnings, costs, revenues, assets, investments, timing etc. Our scope 1&amp;2 absolute emissions reduction target re-evaluated &amp; aligned with the projections.</p>
Physical climate scenarios RCP 8.5	Company-wide		<p>High Climate Change Scenario (RCP 8.5): Continuation of business as usual with emissions at current rates. This scenario is expected to result in warming in excess of 4 degrees Celsius by 2100.</p>
Physical climate scenarios RCP 4.5	Company-wide		<p>Moderate Climate Change Scenario (RCP 4.5): Strong mitigation actions to reduce emissions to half of current levels by 2080. This scenario is more likely than not to result in warming in excess of 2 degrees Celsius by 2100.</p>
Physical climate scenarios RCP 2.6	Company-wide		<p>Low Climate Change Scenario (RCP 2.6): Aggressive mitigation actions to halve emissions by 2050. This scenario is likely to result in warming of less than 2 degree Celsius by 2100.</p>

### C3.2b

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

**Row 1**

### Focal questions

1. How will climate change and the emerging regulation affect automotive market?
2. How we are going to be affected by the water stress we are facing around the basins our facilities are located.
3. How can we contribute to the low carbon transition of the world that is quite urgent and how our company can help with the changing need of customers driven by this transition.

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

1. Latest CBAM and other low carbon product related current and emerging regulations have an important impact on the sector we operate. Our scenario analysis focuses on the prices of and demand for low carbon products as well as possible carbon tax mechanisms. For instance, the target to have only electric vehicles in Turkey by 2040 will be undergoing major changes through the expansion of new vehicle models. Turkey's ratification of the Paris Agreement, incentives for renewable energy and low-carbon investments in Turkey, growth of carbon offset markets, increasing demand for EVs, are developments we follow up on closely with our analysis in order to determine what type of lobbying activities and investments we should be prioritizing.
2. Our facilities are located in locations where there is a high possibility to have water stress in medium terms. With the increasing temperatures, draught or ongoing water stress may be our future problems. There may be limitations in quotes on industry water use in seasons where there is higher water stress.
3. Technology and innovation investments are focus areas on our sustainable business model as they will help us seize the opportunities in this field and implement leading practices. Our strategic plans are developed with the idea of constant innovation and involve in a lot of R&D projects.

## 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	Current and emerging regulations and the adoption of Green Deal aligning with the Paris Climate Agreement have resulted in global product and service plans, with strong investment in EV, digital transformation and innovation works and smart city solutions along with the introduction of Lean Transformation processes. Thanks to Lean

		<p>Transformation, we have the goal to reorganize our resources to produce higher quality products in less time, with higher qualified labor and by consuming less energy. We maintain our position as the leading company while the world and our sector are facing an intensely competitive environment during the transition process. We achieve this by adopting R&amp;D and innovation as a work culture and by focusing on developing the products and production conditions of the future. We continue our progress toward safe and fuel-efficient models with low emission levels that would be needed in the smart cities of the future. This is an opportunity for us to be a responsible producer for a globally responsible consumption.</p> <p>With the goal to become a company that does not only manufacture vehicles, but also offer more extensive transportation solution opportunities, we have included new approaches to our business model which we are focused on transformation together with our partner Ford Motor Company.</p> <p>Case Study and time horizons: In line with our strategy, we aim to reduce carbon dioxide emissions in the F-Trucks fleet by 15% in 2025 as our mid-term target and 15% in 2030 as our long-term target in line with EU targets, we develop engine and vehicle technologies. The development work related to diesel heavy commercial vehicles includes increasing thermal efficiency in Ecotorq engines, enhancing vehicle aerodynamics, reducing weight, and improving tires. We also develop connectivity technologies like ConnectTruck on F-MAX and achieve fuel and financial savings with speed tracking, remote diagnostics, and software updates. Beyond diesel vehicles, our development work focuses on new carbon-neutral fuel technologies such as electric vehicles, hydrogen internal combustion engine technologies, and hydrogen fuel cells. Electric road trucks, currently in development at F-Trucks, will have an important role to play in our 2025 carbon strategy for heavy commercial vehicles.</p>
Supply chain and/or value chain	Yes	<p>Acute or chronic physical risks can pose severe business interruption on our supply chain. The magnitude of impact is significant in areas where there are risks of floods, heat waves and drought. These risks must be managed well to avoid facing serious interruptions on business. The sector involves a long and complex supply chain. We have various suppliers from whom we purchase various parts, materials, services and raw materials. We are committed to our approach of developing together with our suppliers. We</p>

		<p>consider locality, sustainability and digitization as focal points in our supply chain. We cooperate with our suppliers to ensure efficiency, quality, and high social, environmental and ethical standards. One of our material issues in the supply chain is to create added value through local supply-localization. More than half of the materials we supply for our production come from local suppliers. And 80% of these products come from suppliers within the 100 km radius from us. By giving priority to local products, we reduce environmental footprint, get cost advantage and support local &amp; socioeconomic development.</p> <p>Case Study &amp; time horizons: We have the goal to maximize our added value by increasing the rate of local products throughout the value chain in the mid-term. Transformation work commenced with the vision of eliminating processes that do not align with the priorities, where possible, and simplifying them with a lean approach. We monitor &amp; contribute to the development of our suppliers with five different audits and site visits. In 2020, we conducted Manufacturing Site Assessments (MSA) with 165 of our vehicle parts suppliers. We also visited 287 suppliers and made 51 Q1 certification assessments to improve delivery performance and support serial production.</p> <p>Q1 Audits:We perform main audits over Q1 – Number 1 in Quality certification system.</p> <p>Capacity Audits:We perform audits as part of FMC global capacity controls.</p> <p>Production Problems:We organize field visits to resolve problems and challenges faced by the suppliers during the production process.</p> <p>Performance Improvement:We identify suppliers that are open to improvement over FMC's global system and we work on auditing and performance improvement.</p> <p>Risk Management:We plan supplier visits for natural disasters, fires and syndicate related risks and take actions to prevent probable risks.</p>
Investment in R&D	Yes	<p>One of the factors that determine the competitive power of today's companies is innovation competency. We consider R&amp;D and innovation as the keys to resolve environmental and social issues and offer solutions that are in line with the global trends. We would like to contribute to transportation ecosystem through the technologies and smart vehicles we develop to make it more efficient, cleaner and more reliable.</p> <p>Case Study &amp; time horizons: We also have R&amp;D works in many other fields such as fuel optimization and reduction of</p>

		<p>carbon emissions, and connected, autonomous and electric vehicles. We cooperate as part of these works. We are project partners in projects that are funded by European Union, such as Horizon 2020 project. Among our R&amp;D studies, there are software innovations, recycling of valuable metals used in automotive, development of programmable systems for smart vehicles, automotive applications of visible light telecommunication, and 5G technologies for interactive, connected and autonomous mobility. Our DCML and FON projects have been shortlisted for the Henry Ford Technical Awards, which are given annually by Ford Motor Company to advanced technological studies and projects.</p> <p>The investment in R&amp;D will have always high impact on our core business, but it is certain that the highest impact can be seen in the medium term, in the context of profitable growth and responsible producer.</p> <p>Ford Otosan is a leading product development hub within the global Ford organization and carries out R&amp;D projects as part of product programs. The R&amp;D spending on various product development projects that we have worked on in 2021 amounted to USD 50,184,230 before capitalization and USD 101,400,147 after capitalization.</p>
Operations	Yes	<p>We continuously follow up our performance in order to effectively manage our environmental impacts. For an efficient environment and energy management, we do not limit ourselves to the in-house policies and practices, and we carry out all our activities in compliance with the international standards. We manage all our products and services as part of ISO 14001:2015 Environment Management System and ISO 50001 Energy Management System. Also, to manage our indirect environmental impacts, we require our suppliers to have ISO 14001:2015 Environment Management System certificate as a prerequisite. We do not limit audits with yearly controls of ISO certificates, but support the management of these processes with cross checks. We ensure the highest level of energy efficiency in procurement, design and production, distribution processes and thus reduces emissions from production and logistics Energy efficiency and reduction of greenhouse gas emissions support our competitive capacity with cost advantage they provide. For this reason, we regard energy efficiency as an area of continuous improvement and we carry out improved project activities in every process of our operations. For this reason, we regard energy efficiency as an area of continuous improvement and we carry out improved project</p>

		<p>activities in every process of our operations.</p> <p>The emission intensity is 0.34 CO2-e per vehicle in 2020 and 0.258 CO2-e per vehicle in 2021.</p> <p>Another pillar of our strategy is circular economy principles, We develop projects for the 3R principle (Reduce , Reuse, Recycle ) in the use of energy, water and other materials at all operation sites.</p> <p>Case Study &amp; time horizons: Third party assurance has been made, within the scope of the new version of ISO 14064:2018, our indirect emissions have been verified for the first time.</p> <p>Following the adoption of Fourth Industrial Revolution and advanced manufacturing technologies through the projects carried out since 2015, Ford Otosan’s Golcuk Plant was named a Lighthouse Factory by the World Economic Forum (WEF) and added to the “Global Lighthouse Network”.</p> <p>We have realized that the operations of the company could be impacted by energy prices and all related activities with energy savings and potential possible optimization issues are assessed.</p> <p>Other physical risks are assessed for our facilities and services. The insurance system is in place.</p>
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### 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 Indirect costs Access to capital Assets Liabilities	Revenues: Climate change poses an opportunity for Ford Otosan to develop low- emission goods and services. This would certainly impact the projected revenue in the long term. These opportunities have been factored into the financial planning process, by related departments, and the Board makes decisions on each driver. We consider reducing the emissions of the vehicles we produce to combat climate change as one of our responsibilities. Reducing vehicle emissions is also important in terms of compliance with increasingly stringent regulations, exploiting opportunities from climate change and maintaining competitiveness. We invest in innovative technologies to contribute to fuel economy and reduce GHG emissions. We have achieved significant acceleration in the use of alternative fuel vehicles, electric vehicles, hybrid vehicles and related engines and transmission systems and lighter materials that cause lower

	<p>emissions such as natural gas. At the same time, we provide our customers fuel and time savings and GHG reductions through smart applications we offer in areas such as fleet management. In addition to the 107% increase in our domestic sales, our positive product mix and pricing discipline also contributed, and we captured an annual increase of 12% in domestic sales revenues, which amounted to TL 16,586 million in total. Despite the 24% decrease in the number of units, our export revenues increased by 57% on TL basis year on year to reach TL 54.515 million, thanks to the export agreements leveraging the exchange rate effect, positive product mix, and costs. This resulted in an increase of 44% in total sales revenues, which reached USD 5,239,573 in 2021.</p> <p>Indirect costs: It was evaluated that climate change related operating costs have influenced our planning. At Ford Otosan, we set our greenhouse gas emission reduction targets to align with the European Green Deal. In this context, our targets for Scope 1 and Scope 2 emissions from our operations are; -Reducing emissions by 18% by 2023 compared to baseline year of 2017, -Reducing emission by 50-55% by 2030 compared to baseline year of 2017, -Becoming a carbon-neutral factory by 2050. We procure renewable energy directly to meet these targets. In 2021, we purchased 946,294 GJ of renewable electricity, achieving a reduction of 113,831,24 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of in 2021, our Gölcük, Yeniköy, Eskişehir and Sancaktepe Campuses procure all their electrical energy from 100% renewable sources. In addition to purchasing renewable energy, we also focus on power generation directly on all the campuses. In this context, we invest in wind energy, Solarwall, and solar power plants. The Solarwall installation at the Kocaeli Plants, with a capacity of 97,200 m3/h, delivers savings equivalent to 17,734 GJ of natural gas annually, preventing greenhouse gas emissions of 995.84 tons of CO<sub>2</sub>e. On the other hand, the Solarwall installed in Sancaktepe has a capacity of 25,000 m3/h and eliminates greenhouse gas emissions by 126 tons of CO<sub>2</sub>e annually. The Solarwall systems at our Gölcük Plant and Sancaktepe Campus enable us to meet a part of our heating requirement with solar power while the four mini wind turbines, each with a capacity of 500 W, supply our electricity. The turbines that supply electricity for the communication station in the Gölcük Paint Shop save nearly 50 GJ annually. Meanwhile, the solar power plant - at the Eskişehir Plant reduces emissions by 326.68 tons of CO<sub>2</sub>e annually. The control of potential extreme and acute weather events in our sites is our first concern to ensure our business continuity.</p> <p>Access to Capital: Thanks to our continuous efforts on R&amp;D and innovation our R&amp;D teams are able to be involved in EU Funding Programmes such as Horizon 2020. Some of our R&amp;D activities are funded by EU. There are also different financial instruments that are being</p>
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		<p>developed by financial institutions for the transition to a low carbon economy. We are working on to capture these opportunities as well.</p> <p>Assets &amp; Liabilities: The deployment of specific protection systems and emergency response plan allow Ford Otosan to a reasonable insurance coverage eliminating big financial implication. It was evaluated that climate change related identified physical risks have factored our financial planning, on asset management. The hail bomb project (soundproofing system) practice was realized as a consequence of physical risk assessment made by Ford Otosan for the purpose to protect newly produced vehicles in Yeniköy Port in Kocaeli, against hailstorm. After a long feasibility and optimization process with financial measures, installation of full protection system against hailstorm at Ford Otosan Yeniköy Port was achieved. In case of any financial necessity on this subject, the follow-up and information process are always in place; executions are accomplished after the board decision.</p> <p>It was evaluated that climate change related risks and opportunities have factored our financial planning process on the liabilities area. As Ford Otosan, our main goal is to conduct all our activities within the framework of all legal regulations to which we are subject, to be the best in quality, service and dealer relations, to create sustainable shareholder value and to act in accordance with the highest ethical standards. Ford Otosan's main objectives in risk management are; to anticipate, manage, monitor potential risks in all areas and to prepare action plans in advance in terms of risk and crisis management. Ford Otosan Board of Directors, Early Detection of Risk and the Management Committee, Audit Committee and Senior Management are regularly informed about the risks. *We consider reducing the emissions of the vehicles we produce to combat climate change beyond our legal responsibilities. Reducing vehicle emissions is also important in terms of adapting to increasingly stringent regulations, exploiting opportunities from climate change and maintaining competitiveness. We design our products to show performance beyond legal requirements in line with all related regulations and standards. The vision of becoming carbon-neutral by 2050 in line with the European Union's Green Deal points out that the automotive industry should play a role in the transition to a low-carbon economy by accelerating the transformation. We created Ford Otosan Impact Analyses within the scope of the Green Deal. In line with this target, including other action plans set out by the Green Deal Commission, we aim to reduce our carbon emissions per vehicle by 50- 55% in 2030 compared to 2009 and to specify our actions within the vision of becoming carbon-neutral by 2050. The R&amp;D spending on various product development projects that we have worked on in 2021 amounted to USD 50,284,230 before capitalization and USD 101,400,147 after capitalization.</p>
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## C4. Targets and performance

### C4.1

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

Absolute target

Intensity target

### C4.1a

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

---

**Target reference number**

Abs 1

**Year target was set**

2015

**Target coverage**

Site/facility

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Base year**

2015

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

996.53

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

3,410.01

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

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

4,406.54

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

1.23

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

2.83

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

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

2.19

**Target year**

2022

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

30.08

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

3,081.052768

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

2,280.21

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

1,760.72

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

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

4,040.94

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

27.5823102006

**Target status in reporting year**

Revised

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

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

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

This target is related to Sancaktepe R&D Center & Spare Parts Distribution Center that is located in İstanbul. Sancaktepe R&D Center & Spare Parts Distribution Center accounted for 2.19% of our company's total Scope 1+2 emissions in the base year. It is preferred to give an absolute target for these non-production facility.

In the reporting year the realized reduction from the base year was 27.58%.

Absolute emissions have been reduced through energy efficiency projects, such as green office operations that began in 2017. Within the scope of Green Office Project, practical environmental programme has been planned to decrease consumption of water, electricity and paper in the first year of project in Sancaktepe location. According to collaboration agreement with WWF – Turkey, In the context of green office activities focusing on renewable energy consumption, a reduction of 2.28% rolling target was set for Sancaktepe location on year basis and in the following years we will realize a cumulative reduction of 4.51% until the target year. This target was revised due to the changes in the reporting year, Ford Otosan has returned to normal levels of operations which resulted in an increase office work hours (related covid\_19 situation) apart from this an increase in the building area and employee numbers in 2021. Therefore, target year of 2021 extended to 2022.

Ford Otomotiv Sanayi A.Ş. is a publicly traded company, where Ford Motor Company (41%) and Koç Holding A.Ş.(41%) have equal shares. All our emissions reduction targets are compatible with Ford Motor Company's targets which are considered as a science based target by Science Based Targets Initiative.

This is compatible with Ford Otosan targets and we consider this as a science based target due to the outcomes of the online SBTi tool.

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

Absolute emissions have been reduced through energy efficiency projects, such as green office operations that began in 2017. Within the scope of Green Office Project, practical environmental programme has been planned to decrease consumption of water, electricity and paper in the first year of project in Sancaktepe location. According to collaboration agreement with WWF – Turkey, In the context of green office activities focusing on renewable energy consumption.

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

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**Target reference number**

Abs 2

**Year target was set**

2021

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Base year**

2017

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

79,349

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

121,890

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

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

201,239

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

100

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

100

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

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

100

**Target year**

2035

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

76

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

48,297.36

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

88,050.49

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

1,791.92

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

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

89,842.41

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

72.8360111739

**Target status in reporting year**

Underway

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

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

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Ford Otomotiv Sanayi A.Ş. is a publicly traded company, where Ford Motor Company (41%) and Koç Holding A.Ş. (41%) have equal shares. All our emissions reduction targets are compatible with Ford Motor Company's targets which are also approved as science-based by the Science Based Targets initiative.

Ford Motor Company commits to reduce absolute scope 1 and scope 2 GHG emissions 76% by 2035 from a 2017 base year. The targets covering greenhouse gas emissions from company operations (scopes 1 and 2) are consistent with reductions required to keep warming to 1.5°C.

This is also compatible with Ford Otosan targets and we consider this a science based target due to the outcomes of the online SBTi tool. However, Ford Otosan also is developing its own science based target and willing to submit to SBTi within next two years.

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

Ford Otosan is planning to improve the production processes, introduce more energy efficiency measures and use renewables. The work have started to set a science base target and there will be more concrete targets within the next two years. Reducing

Scope 2 emissions by purchasing electricity from 100% renewable energy was a very important greenhouse gas reduction project for the reporting year of 2021.

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

**Year target was set**

2009

**Target coverage**

Site/facility

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Intensity metric**

Metric tons CO<sub>2</sub>e per vehicle produced

**Base year**

2009

**Intensity figure in base year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

0.34

**Intensity figure in base year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

0.49

**Intensity figure in base year for Scope 3 (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in base year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity)**

0.73

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

87.54

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

88.51

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

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

87.75

**Target year**

2021

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

46.88

**Intensity figure in target year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

0.387776

**% change anticipated in absolute Scope 1+2 emissions**

8.5

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

0

**Intensity figure in reporting year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

0.21

**Intensity figure in reporting year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

0

**Intensity figure in reporting year for Scope 3 (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in reporting year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity)**

0.21



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

151.9472626116

**Target status in reporting year**

Achieved

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

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

**Target ambition**

**Please explain target coverage and identify any exclusions**

This target is related to Gölcük+Yeniköy Plants that are located in Kocaeli.

Gölcük+Yeniköy Plants accounted for 87.35% of our company's total Scope 1+2 emissions in the base year.

This intensity target figures out 5% reduction on year basis in the following years. By the target year our vehicle production volume will grow 104.24% compared to the base year while the change anticipated in absolute scope 1+2 emissions will be 8.5% in the same period.

Ford Otomotiv Sanayi A.Ş. is a publicly traded company, where Ford Motor Company (41%) and Koç Holding A.Ş. (41%) have equal shares. All our emissions reduction targets are compatible with Ford Motor Company's targets which are considered as a science based target by Ford Motor Company and approved by SBTi.

The target has been achieved in the reporting year, with a 0.21 CO<sub>2</sub>e per tonne of vehicle produced. This is due to the R&D studies, emission reduction initiatives and Renewable energy use.

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

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

Reducing Scope 2 emissions by providing electricity from 100% renewable energy was a very important greenhouse gas reduction project.

---

**Target reference number**

Int 2

**Year target was set**

2009

**Target coverage**

Site/facility

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

**Intensity metric**

Metric tons CO<sub>2</sub>e per vehicle produced

**Base year**

2009

**Intensity figure in base year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

3.75

**Intensity figure in base year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

5.42

**Intensity figure in base year for Scope 3 (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in base year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity)**

9.17

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

11.04

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

11.06

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

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

11.04

**Target year**

2021

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

51.15

**Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]**

4.479545

**% change anticipated in absolute Scope 1+2 emissions**

131.88

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

0

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

1.27

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

0.0024

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

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

1.27

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

168.4271568537

**Target status in reporting year**

Achieved

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

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

**Target ambition**

**Please explain target coverage and identify any exclusions**

This target is related to Eskişehir (İnönü) Plant that is located in Eskişehir. Eskişehir Plant accounted for 11.04% of our company's total Scope 1+2 emissions in the base year.

This intensity target figures out 12.77% reduction on year basis in the following years. By the target year our vehicle production volume will grow 374.68% compared to the base year while the change anticipated in absolute scope 1+2 emissions will be 131.88% in the same period.

Ford Otomotiv Sanayi A.Ş. is a publicly traded company, where Ford Motor Company (41%) and Koç Holding A.Ş.(41%) have equal shares. All our emissions reduction targets are compatible with Ford Motor Company's targets which are considered as a

science based target by Ford Motor Company but has not been approved as science-based by the Science Based Targets initiative.

The target has been achieved in the reporting year, with a 1.27 CO<sub>2</sub>e per tonne of vehicle produced. This is due to the R&D studies, emission reduction initiatives and Renewable energy use.

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

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

The target has been achieved in the reporting year, with a 1.27 CO<sub>2</sub>e per tonne of vehicle produced. This is due to the R&D studies, emission reduction initiatives and Renewable energy use.

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#### **Target reference number**

Int 3

#### **Year target was set**

2022

#### **Target coverage**

Company-wide

#### **Scope(s)**

Scope 3

#### **Scope 2 accounting method**

#### **Scope 3 category(ies)**

Category 11: Use of sold products

#### **Intensity metric**

Metric tons CO<sub>2</sub>e per kilometer

#### **Base year**

2021

#### **Intensity figure in base year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

#### **Intensity figure in base year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

#### **Intensity figure in base year for Scope 3 (metric tons CO<sub>2</sub>e per unit of activity)**

0.00037

**Intensity figure in base year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity)**

0.00037

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

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

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

92.43

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

92.43

**Target year**

2035

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

50

**Intensity figure in target year for all selected Scopes (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

0.000185

**% change anticipated in absolute Scope 1+2 emissions**

0

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

0

**Intensity figure in reporting year for Scope 1 (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in reporting year for Scope 2 (metric tons CO<sub>2</sub>e per unit of activity)**

**Intensity figure in reporting year for Scope 3 (metric tons CO<sub>2</sub>e per unit of activity)**

0.00037

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

0.00037

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

0

**Target status in reporting year**

Revised

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

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

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Ford Otomotiv Sanayi A.Ş. is a publicly traded company, where Ford Motor Company (41%) and Koç Holding A.Ş. (41%) have equal shares. All our emissions reduction targets are compatible with Ford Motor Company's targets which are also approved as science-based by the Science Based Targets initiative.

This year Ford Otomotiv Sanayi A.Ş. revised their scope 3 base year from 2017 to 2021 due to the use of more accurate data in the calculations for Scope 3 emissions. There was a methodological difference in 2021 compared to previous years. The scope includes all HCV, MCV, LCV vehicles produced in 2021. Within HCV, we used only connected data and service records collected from customers, and thus we reached the most precise calculation result. The emission value per km is calculated for each vehicle type over the number of vehicle sales in 2021 and its 10-year lifetime. Then, the total emission value is calculated according to the vehicle types.

Ford Motor Company commits to reduce scope 3 use of sold products GHG emissions 50% per vehicle kilometer by 2035 from a 2021 base year. The base year emissions for the use of products stage is estimated to be 71,182,818.78 tCO2e.

This is also compatible with Ford Otosan targets and we consider this a science based target due to the outcomes of the online SBTi tool.

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

We commit to reduce scope 3 use of sold products emissions in line with our goal to expand our product range with zero-emission and low emission vehicles, we continue our studies to develop fully electric models of Ford Transit along with its hybrid version.

**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  
Other climate-related target(s)

### C4.2a

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

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**Target reference number**

Low 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: energy carrier**

Electricity

**Target type: activity**

Consumption

**Target type: energy source**

Renewable energy source(s) only

**Base year**

2019

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

265,574.369

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

0

**Target year**

2030

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

100

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

98.45

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

98.45

**Target status in reporting year**

Underway

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

Our target is to use renewable energy source for the purpose to reduce our scope 1+2 emissions in Kocaeli, Sancaktepe and Eskişehir facilities. An increase in the use of renewable sources for electricity will led to a decrease in our gross global greenhouse gas emissions. This target is a part of targets Abs 1 and 2.

**Is this target part of an overarching initiative?**

Other, please specify

Yes, as Ford Otosan, we will inform the SBT initiative about our reduction targets within two years.

**Please explain target coverage and identify any exclusions**

We procure renewable energy directly to meet the energy efficiency and greenhouse gas emission reduction targets. In 2021, we purchased 946317.59 GJ of renewable electricity, achieving a reduction of 113847 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of May 2020, our Gölcük, Yeniköy and Eskişehir Campuses procure all their electrical energy from 100% renewable sources.

At Ford Otosan, we set our greenhouse gas emission reduction targets to align with the European Green Deal. In this context, our targets for Scope 1 and Scope 2 emissions from our operations are:

- Reducing emissions by 18% by 2023 compared to baseline year of 2017,
- Reducing emission by 50-55% by 2030 compared to baseline year of 2017,
- Becoming a carbon-neutral factory by 2050.

Currently we are updating our long term plans and developing our own science based target.

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

We procure renewable energy directly to meet the greenhouse gas emission reduction targets. In 2021, we purchased 946317.59 GJ of renewable electricity, achieving a reduction of 113847 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of May 2020, our Gölcük, Yeniköy and Eskişehir Campuses procure all their electrical energy from 100% renewable sources. Sancaktepe R&D center also purchased renewable electricity starting from September 2021.

**List the actions which contributed most to achieving this target**



## C4.2b

**(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.**

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**Target reference number**

Oth 1

**Year target was set**

2019

**Target coverage**

Company-wide

**Target type: absolute or intensity**

Absolute

**Target type: category & Metric (target numerator if reporting an intensity target)**

Engagement with suppliers

Percentage of suppliers (by emissions) disclosing their GHG emissions

**Target denominator (intensity targets only)**

**Base year**

2019

**Figure or percentage in base year**

60

**Target year**

2025

**Figure or percentage in target year**

70

**Figure or percentage in reporting year**

65

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

50

**Target status in reporting year**

Underway

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

It is not part of an emission target for the time being, but it will help to reduce indirect emissions of Ford OTOSAN for upcoming years.

**Is this target part of an overarching initiative?**

Science Based targets initiative - other

**Please explain target coverage and identify any exclusions**

In 2025, the rate of the suppliers (60.6% of the suppliers) we have reached within the Q1 specific coverage, will increase to 70%. These suppliers will be asked to submit their emission reports to Ford OTOSAN. A modified questionnaire will be used for data gathering purpose.

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

In 2025, the rate of the suppliers (60.6% of the suppliers) we have reached within the Q1 specific coverage, will increase to 70%. These suppliers will be asked to submit their emission reports to Ford OTOSAN. A modified questionnaire is expected to be used for data collection purposes.

**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	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	22	1,495.76
Not to be implemented	0	0

### C4.3b

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

**Initiative category & Initiative type**

Energy efficiency in production processes  
Process optimization

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

1,495.76

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

Scope 1  
Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

878,662

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

323,870

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

3-5 years

**Comment**

Through energy efficiency projects, we saved a total of USD 878,662 in costs while reducing greenhouse gas emissions by 1,495.76 tons of CO2 e in 2021. In the context of the energy efficiency efforts in 2021, we carried out 22 projects in total at all our facilities. We develop projects and applications to reduce operational energy consumption and procure electricity from renewable sources. These include; • Lighting optimizations & LED lighting transformation • Digital management of pressurized air • pump line driver transformation and economizer applications • SolarWall and solar energy plants • Energy Management System • Energy awareness.

## C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	Full compliance with environmental (including climate change and energy) regulations and related laws is among our environmental management principles. In this regard, our specialists constantly track legislation changes and proactively render our implementations compatible with changing conditions. Environmental Compliance Index

	<p>(ECI) scorecard is monitored as one of our metrics. At the same time, the data is also checked in the Global Emissions Manager (GEM) as part of EOS, enabling its global monitoring. Ford Otosan legal compliance index is also monitored by Koç Holding. In this regard, like every year, 100% legal compliance was achieved in 2021. Ford Otosan did not involve in any violation of the rules within the context of environmental regulations, nor did it incur any penalties or accidents. The compliance and certification of the management standards we follow, such as ISO 14001, ISO 50001 and ISO 14064 (obtaining certification for emission quantification studies based on IPCC Guidelines), are ensured and re certified by means of independent external audits which are performed every year. Within the scope of EOS Environmental Operation System, independent external audits are conducted, as well as audits by teams arriving from abroad. Besides, ISO 14001, ISO 50001, ISO 14064 management standards are subjected to the internal audit process conducted annually and to environmental audits conducted by Koç Holding every two years. The achieved performance results are reported to the executive management through monthly reports, to Ford Motor Company management by means of Ford Global Emission Management Database to Koç Holding through annual reports and to all our stakeholders by means of sustainability reports. The risks related to compliance with regulatory requirements/standards are assessed by related departments, the required budget adjustments for foreseen activities are approved by the Top Management . Our connection to other frameworks includes UN SDG 7-Affordable and Clean Energy, UN SDG 13- Climate Action and UN SDG 17– Partnership for the Goals.</p>
<p>Dedicated budget for energy efficiency</p>	<p>In line with our commitment to be Net Zero target by 2050, energy efficiency and reduction of greenhouse gas emissions works constitute the most important part of our activities for combating climate change. For this reason, we regard energy efficiency as an area of continuous improvement and we perform reformatory project activities in every process of our operations. We reduced the value of our energy consumption per vehicle to the level of 3.95 GJ/vehicle in 2021. In 2021, our total environmental investments and expenditures, reached 37.7 million TL with an increase of 165%. We procure renewable energy directly to meet the energy efficiency and greenhouse gas emission reduction targets. In 2021, we purchased 946,317.59 GJ of renewable electricity, achieving a reduction of 113,843.26 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of September 2021, our Gölcük, Yeniköy, Eskişehir and Sancaktepe Campuses procure all their electrical energy from 100% renewable sources. In addition to purchasing renewable energy, we also focus on power generation</p>

	<p>directly on all the campuses. In this context, we invest in wind energy, Solarwall, and solar power plants. The Solarwall installation at the Kocaeli Plants, with a capacity of 97,200 m<sup>3</sup>/h, delivers savings equivalent to 17,734 GJ of natural gas annually, preventing greenhouse gas emissions of 995.84 tons of CO<sub>2</sub>e. On the other hand, the Solarwall installed in Sancaktepe has a capacity of 25,000 m<sup>3</sup>/h and eliminates greenhouse gas emissions by 126 tons of CO<sub>2</sub>e annually. The Solarwall systems at our Gölcük Plant and Sancaktepe Campus enable us to meet a part of our heating requirement with solar power while the four mini wind turbines, each with a capacity of 500 W, supply our electricity. The turbines that supply electricity for the communication station in the Gölcük Paint Shop save nearly 50 GJ annually. Meanwhile, the solar power plant - with an annual capacity of 2 GJ - at the Eskişehir Plant reduces emissions by 326.68 tons of CO<sub>2</sub>e annually. According to the 2021 results, the Yeniköy Plant became Ford Europe's best factory with a VOC value of 27 gr/m<sup>2</sup>, reducing 3,5 gr/m<sup>2</sup> of volatile organic compounds (VOC) through Waste Solvent and Wax Recycling projects.</p>
Employee engagement	<p>Green Office Project, realized in cooperation between Ford Otosan and World Wildlife Fund for Nature (WWF –Turkey), helps to reduce the ecological footprint and greenhouse gas emissions of office activities. With the Sancaktepe R&amp;D Center and Marketing, Sales and After Sales Offices, we supported the program with over 1,700 employees. Within the scope of Green Office Project, practical environmental programme has been planned to decrease consumption of water, electricity, and paper in the first year of project in Sancaktepe location. According to collaboration agreement with WWF– Turkey, it has been aimed to save 3% in energy consumption and 4% in paper and water usage in the period 2016-2019. Firstly, Green Office Team has been established with twenty five -member of volunteers from different departments, who focuses on reducing environmental impact of office activities. It has been chosen the indicators, and set the numeric objectives and monitored the fulfillment of the objectives to reach goals given from WWF – Turkey. Inspection/Audit of office premises has been performed by WWF – Turkey Green Office Expert in the end of the first year of project. As a result of successful inspection, it has been received the Green Office Diploma along with the right to use the Green Office logo. This diploma shows that the company is environmentally sensitized and committed. Improvement in Environmental Management System and environmental awareness among personnel must be continued in order to keep use of the Green Office logo. Because of this reason, inspection will be conducted by WWF - Turkey annually. The following goals have been achieved during the project: - Electricity consumption has been reduced by 10 percent by setting energy monitoring system and raising employee</p>

	<p>awareness, - The usage of water has been decreased by 9 percent by lowering toilet reservoir volumes, reducing tap flow rates, and placing labels on toilet reservoir about awareness. - The use of massive amounts of paper has been avoided by 10 percent by using double-sided printing, and printer with card reading system. Following the Sancaktepe Campus, the Eskişehir Plant and Kocaeli Plants also received the Green Office Diploma. The required budget allocation for foreseen activities is revised by related departments, presented to the Top Management for approval, every year.</p>
<p>Dedicated budget for low-carbon product R&amp;D</p>	<p>We begin our efforts for reducing the environmental impacts of products or processes with product design processes. We evaluate the energy intensity and environmental impacts of our products or projects within the framework of the green design logic through Ford Otosan Procedure for the Revision of New Projects Regarding Environment and Energy. We ensure that our designs serve the protection of natural resources, ecological environment, biodiversity, climate, air and water quality and the efficient use of water and materials. When any element of risk in relation to these determined criteria is encountered in our examinations, we switch to an alternative project or product design practice. We also implement the same process in the admission and start-up phases of our projects. Some of our low carbon projects: 2.0L Ecoblue Engine, Ecotorq Engine Family, Electric Hybrid Ford Custom. Electric Ford Transit, Electric Battery Production, Electric Waste Truck, Truck with Natural Gas (CNG) Autonomous Truck Convey Technology, Lighter Materials project. We exhibited our first concept vehicle, F-Vision, designed by Ford Otosan Design Studio with fully electric motor and autonomous driving ability, at Hanover Fair. Ford Otosan, which is supported by the European Union Horizon 2020 program, aims to reduce greenhouse gas emissions in heavy commercial vehicles. Optitruck is in the frame of this project. We focus our innovation works on engine, drive train, body and interior space development works for Ford Motor Company and Ford Otosan, besides enhancing fuel economy, emission optimization, driver support systems, test processes and analytical methods. The required budget allocation for foreseen activities is revised by related departments, presented to the Top Management for approval, every year. In the reporting year, 1,688 employees worked in our R&amp;D center where the R&amp;D spending on the various product projects undertaken amounted to 681 million Turkish lira before capitalization. Our connection to other frameworks includes TCFD, UN SDG 7-Affordable and Clean Energy and UN SDG 13-Climate Action.</p>
<p>Dedicated budget for other emissions reduction activities</p>	<p>The study performed within Koç Group Environmental Board to determine the examinations and evaluations that need to be conducted regarding environmental issues before deciding on going forward with new investments of Group companies was performed with the</p>

	<p>leadership of Ford Otosan. As a result of the study, “Environmental Guide for New Investments” and “New Investment Environmental and Energy Impact Evaluation Form” were constituted. The examination of current environmental impacts of the location of the investment and its impact area, identification of the major environmental impacts of the project and the measures to be taken, determining the requirements of national and international regulations, the revision of new projects with regards to environment and energy, examination of energy identity file and identification of standard documents are issues dealt with as part of environmental examinations and evaluations. The required budget allocation for foreseen activities is revised by related departments, presented to the Top Management for approval, every year. Our connection to other frameworks includes TCFD, UN SDG 7-Affordable and Clean Energy and UN SDG 13-Climate Action.</p>
<p>Dedicated budget for other emissions reduction activities</p>	<p>The European Union Mobile Air Conditioning Directive, which was published by the European Parliament and Council and entered into force in 2006, was also legislated as of 2008. Accordingly, the use of R 134 a was prohibited with the restriction enforced regarding the refrigerants that can be used in the air conditioning systems of M1 and N1 class vehicles, starting January 1, 2011 for vehicles with model year alteration and starting January 1, 2017 for newly designed vehicles . In addition, the new refrigerant to be used will be allowed to have a GWP (Global Warming Potential) value of 150 and lower. When compared to its competitors in Turkey, Ford Transit Courier will be one of the first vehicles to switch from the R134 a gas (GWP: 1430) to the R1234Y F gas (GWP :4) within the scope of combating climate change and in order to meet the enforced legal requirements. In addition, the pollution load of the R 1234 YF gas is twice as low as that of the R134a gas. The required budget allocation for foreseen activities is revised by related departments, presented to the Top Management for approval, every year.</p>

## C4.5

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

Yes

## C4.5a

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

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**Level of aggregation**

Product or service

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

The 2.0L EcoBlue engine, which replaces the 2.2L Duratorq engine, provides a higher torque value and more power at lower speeds with its advanced technology despite its low volume. It consumes less fuel. Designed by the R&D engineers of Ford Otosan among others, the 2.0L EcoBlue engine is produced in Turkey and provide a fuel saving of 13% compared to the 2.2L engine with its design that reduces friction, lowers NOx and greenhouse gas emissions. Its new engine structure meets Euro 6 and Euro 7 standard. Besides Transit Vehicles, this engine can be used for long years in place at C/CD type passenger cars (Focus, Mondeo, C-Max, S-Max and Galaxy) which are among common models of Ford Europe, Ford America and Asia-Pacific and also at all "pick up" vehicles. This group of products will allow third party to avoid emissions. Fuel consumption in V362 vehicles started to be sold with Eco blue engine in the previous year, improved by 8% in NEDC homologation cycle. In 2019, we re-introduced the Transit model to the market. We started mass production of Ford Transit Custom Rechargeable Hybrid and Eco Blue Hybrid models - for the first time in its segment - produced in the Gölcük Plant and with all manufacturing engineering performed by Ford Otosan. Our Ford Transit Custom Rechargeable Hybrid vehicle received the 2020 International Van of the Year (IVOTY) award After mass production the % revenue of these product will be identified as % revenue.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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



**Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario**

**Explain your calculation of avoided emissions, including any assumptions**

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

0

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**Level of aggregation**

Product or service

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

At Ford Otosan, we are committed to carry through our heavy commercial vehicle production with a target of zero-emission by 2040 to achieve our target, aligned with Green Deal, as a signatory of the European Automobile Manufacturers Association's (ACEA) joint statement on the transition to zero-emission road freight transport. With our strong R&D organization, we use state-of-the-art technologies to reduce GHG emissions and develop electric, light, connected, and autonomous vehicles To reduce carbon dioxide emissions in the F-Trucks fleet by 15% in 2025 and 15% in 2030 in line with EU targets, we develop engine and vehicle technologies. The innovation work includes increasing thermal efficiency in Ecotorq engines, enhancing vehicle aerodynamics, reducing weight, and improving tires. F-MAX and achieve fuel and financial savings with speed tracking, remote diagnostics, and software updates. Electric road trucks will have an important role to play in our 2025 carbon strategy for heavy commercial vehicles. Our R&D organization is a support center for the design and engineering of light and medium commercial vehicles for Ford Motor Company and a global engineering hub for heavy commercial vehicles, diesel engines, and engine systems. We have three R&D centers, certified by the Ministry of Industry and Technology: Sancaktepe, Eskişehir, and Gölcük. Sancaktepe is Turkey's largest automotive R&D center.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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

**Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario**

**Explain your calculation of avoided emissions, including any assumptions**

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

0

---

**Level of aggregation**

Product or service

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

We are involved in the LongRun Project (a Horizon 2020 project) and aim to reduce emissions by 30% and achieve 10% energy savings. As Ford Otosan, we participated in the project with the diesel-hybrid tow truck concept and the related work.

Within the scope of the project, we work with leading European research institutions and engineering companies. The selected hybrid-electric vehicle concept that provides a high regenerative braking capacity, allowing full electric driving in short distances, It has many advantages such as providing high acceleration and starting performance, optimizing the operating points of the diesel engine. While an electric axle system and vehicle software were developed for heavy commercial vehicles within Ford Otosan last year, the 13-liter Ecotorq Euro-6 engine was also subjected to emission reduction-

oriented tests in the engine dynamometer using hydrogenated vegetable oil. The outputs of LongRun project will be an important milestone for our 2025 and 2030 carbon emission reductions goals.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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

**Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario**

**Explain your calculation of avoided emissions, including any assumptions**

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

0

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**Level of aggregation**

Product or service

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

We are designing a modular battery pack that can be adapted to light commercial and heavy commercial vehicles based on smart batteries combined with low weight designs within Albatross Project, an Horizon 2020 project. With the Project, automotive original product manufacturers (OEMs) partner to reduce battery pack costs and improve their competitiveness by increasing value for secondary life applications, being a preferred vendor and meet global regulatory requirements by reducing emissions throughout their entire lifecycle. In the project, it is aimed to increase the energy density of the prototype battery by 50% compared to the existing battery pack, reduce the charging time by 25%, reduce the weight by 20% and extend the total battery life time.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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

**Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario**

**Explain your calculation of avoided emissions, including any assumptions**

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

0

---

**Level of aggregation**

Group of products or services

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

Following the technological transformation in the automotive industry, advanced R&D studies are carried out in the areas of carbon dioxide emissions reduction, connected vehicles, autonomous vehicles, electric vehicles and electrification, and light vehicle technologies. Investments in R&D infrastructure are continuing. In 2019 we developed the joint R&D venture with AVL, company that develops autonomous convoy-platooning technologies. In this context, we aim to contribute to the reduction of fuel consumption and carbon emissions from 8% to 15%, and the improvement of driving safety in heavy commercial vehicles for intercity transportation Platooning technology, which will be one of the most important steps for the development of full autonomous technologies in heavy commercial vehicles, aims to increase the operational efficiency of heavy commercial vehicles engaged in long-distance transportation. Equipment, software, simulation and road tests of this technology are now successfully completed. This R&D project, a first in Turkey, will help reduce operating costs and improve safety while enabling the Turkish automotive industry to make significant progress in terms of autonomous and connected vehicles. We are among the few truck manufacturers in the world working on autonomous trucks, investing in this field, and most importantly, having a prototype to demonstrate the technology.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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

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

**Explain your calculation of avoided emissions, including any assumptions**

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

0

---

**Level of aggregation**

Product or service

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

Eco-Mode and Fleet-Mode Although improvements have been made in fuel economy in heavy commercial vehicles with the development of engine and vehicle technologies in recent years, fuel economy is still an important factor in terms of driver behaviors. We analyzed aggressive and normal driving behavior on F-MAX trucks using connected vehicles and measured up to 10% fuel economy difference and optimized the behavior of the aggressive driver with software methods and developed the Eco-Mode and Fleet-Mode software solutions that reduce this behavior to the normal driver level. By using the Eco-Mode function, the driver can save fuel by switching to economy driving mode with a button, without sacrificing maximum engine torque and limiting power so as to keep driving performance optimal. The Fleet-Mode function, on the other hand, gives the fleet manager the ability to remotely activate and deactivate the function in the fleet via mobile devices. With the use of Eco-Mode and Fleet-Mode on the same route, we achieved 1% fuel improvement in fuel economy. This corresponds to a saving of 300 liters of fuel per year. We plan to reduce the carbon footprint by reducing the fuel consumption of F-MAX vehicles. After mass production the % revenue of these product will be identified. Ford Otosan Teams have been developing in-house electrical last mile delivery solutions especially for commercial application to serve Ford Otosan low carbon product strategy.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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

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

**Explain your calculation of avoided emissions, including any assumptions**

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

0

---

**Level of aggregation**

Group of products or services

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

Low-Carbon Investment (LCI) Registry Taxonomy

**Type of product(s) or service(s)**

Other

Other, please specify

Avoided emissions, internal know-how and calculations

**Description of product(s) or service(s)**

We reduce our environmental impact by boosting circular economy through our R&D activities. We continued to work on the ReCube Project to calculate the carbon footprint of our products and to design them with lower impact on the environment. In addition to the R&D team, other departments such as Sales and Innovation also contribute to the project. We innovate products with a cradle to cradle approach starting from the design stage, ensuring benefit to the environment and the user. In the project work, we adopt the principles of LCA according to the ISO 14040 standard. We are currently working on new products such as horn protection part, cable duct, and air filter box, which will be produced from recycled materials in 2021. According to lifecycle analyses (LCA), the carbon footprint of battery box was reduced by 82 tons in total throughout the whole life cycle. In addition to reducing environmental impact through the use of recycled plastic, we also had financial benefits. Using local recycled plastics instead of buying plastic composites from abroad helped us reduce our dependence on foreign raw materials and Scope 3 emissions related with logistics. With this project, we produced battery boxes with less environmental impact at 7% lower costs.

We continue the reconstruction of various parts with low carbon alternatives in 2022. As

Ford Otosan, we plan to launch new products in 2025 in order to comply with the commitment to use 20% sustainable plastic.

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

No

**Methodology used to calculate avoided emissions**

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

**Functional unit used**

**Reference product/service or baseline scenario used**

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

**Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario**

**Explain your calculation of avoided emissions, including any assumptions**

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

0

## **C5. Emissions methodology**

### **C5.1**

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

No

### **C5.1a**

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



**Row 1**

**Has there been a structural change?**

No

**C5.1b**

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

	<b>Change(s) in methodology, boundary, and/or reporting year definition?</b>	<b>Details of methodology, boundary, and/or reporting year definition change(s)</b>
Row 1	Yes, a change in boundary	Scope 3 emissions were calculated in 15 categories and included in the greenhouse gas inventory.

**C5.1c**

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

	<b>Base year recalculation</b>	<b>Base year emissions recalculation policy, including significance threshold</b>
Row 1	Yes	Scope 3 emissions are calculated in 15 categories and are methodologically focused on more direct data provision. Therefore, the base year of Scope 3 has been changed to 2021.

**C5.2**

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

**Scope 1**

**Base year start**

January 1, 2017

**Base year end**

December 31, 2017

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

79,349

**Comment**

Our base year was 2009 in previous years. Due to the SBTI target that we set in 2021, we revised our base year as 2017 in the reporting year.

**Scope 2 (location-based)**

**Base year start**

January 1, 2017

**Base year end**

December 31, 2017

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

121,890

**Comment**

Our base year was 2009 in previous years. Due to the SBTI target that we set in 2021, we revised our base year as 2017 in the reporting year.

**Scope 2 (market-based)**

---

**Base year start**

January 1, 2017

**Base year end**

December 31, 2017

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

0

**Comment**

Ford Otosan consumes electricity from the interconnected system. There is no any market- based electricity usage in base year.

**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)**

4,869,383.79

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

**Scope 3 category 2: Capital goods**

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

127,911.31

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

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

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

32,545.4

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

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

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

133,357.03

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

**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)**

2,057.18

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

### Scope 3 category 6: Business travel

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

190.64

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

### Scope 3 category 7: Employee commuting

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

5,045.88

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

### Scope 3 category 8: Upstream leased assets

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

0

**Comment**

There is no data for upstream leased assets in our company in 2021.

### 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)**

147,097.99

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

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

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

0

**Comment**

There is no data for processing of sold products in our company in 2021.

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

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

71,182,818.78

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

**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)**

407,615.67

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

### Scope 3 category 13: Downstream leased assets

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

0

**Comment**

There is no data for downstream leased assets in our company in 2021.

### Scope 3 category 14: Franchises

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

0

**Comment**

There is no data for downstream leased assets in our company in 2021.

### Scope 3 category 15: Investments

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

15,292.68

**Comment**

Our base year was 2017 in previous years. The base year has been revised to 2021 due to the use of more accurate data in the calculations for Scope 3.

### Scope 3: Other (upstream)

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

0

**Comment**

There is no data for downstream leased assets in our company in 2021.

**Scope 3: Other (downstream)**

---

**Base year start**

January 1, 2021

**Base year end**

December 31, 2021

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

0

**Comment**

There is no data for downstream leased assets in our company in 2021.

## 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)

## 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)**

88,050.49

**Comment**

This data covers the Scope 1 GHG emissions of Kocaeli (Gölcük+ Yeniköy), Eskişehir (old name is İnönü) and Sancaktepe locations. As required by the ISO 14064:2018 new version standard, VOC emissions have been added to Scope 1.

## C6.2

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

#### Row 1

---

##### Scope 2, location-based

We are reporting a Scope 2, location-based figure

##### Scope 2, market-based

We are reporting a Scope 2, market-based figure

##### Comment

As Ford Otosan, we report our Scope 2 emissions as both location-based and market-based.

## C6.3

### (C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO<sub>2</sub>e?

#### Reporting year

---

##### Scope 2, location-based

115,639.19

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

1,791.92

##### Comment

In 2020, we purchased 651,171 GJ of renewable electricity, achieving a reduction of 84,309 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of May 2020, our Gölcük, Yeniköy and Eskişehir Campuses procure all their electrical energy from 100% renewable sources with I-REC certificate. As of September 2021, electricity supply for the Sancaktepe location has been provided from 100% renewable energy with I-REC certificates too. In 2021, we prevented a greenhouse gas emission amounting to 113,847.26 tons of CO<sub>2</sub> by purchasing renewable electric energy of 946,317.59 GJ of i-Rec certificates, therefore we are also reporting a market-based figure, where the emissions for the i-Rec certified amount is calculated with an emission factor of zero. The rest of the market-based figure is calculated using the national grid EFs as we were not able to reach market-based emission factors. Our market based scope 2 emissions were 1791.92 tCO<sub>2</sub>e in 2021.



## C6.4

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

No

## C6.5

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

### Purchased goods and services

---

#### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO<sub>2</sub>e)

4,869,383.79

#### Emissions calculation methodology

Average data method

Spend-based method

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

0

#### Please explain

Ford Otosan has calculated all emissions from purchased goods by modeling three vehicle classes: B460(LCV), V362&V363 (MCV), F-Max (HCV). The material information of the vehicles was obtained as raw data via IMDS. A calculation is made on the number of vehicles verified by the third party. These data are refined and used in calculations, taking into account vehicle weights and interior parts. Materials are covered under 5 categories: metals, plastics, liquids, electronics and others. The material information is matched with the material information in the SimaPRO software used for analysis with the help of the details in the database. Purchased services calculations are made by matching the purchased values with the relevant emission factors in the USEEIO model.

### Capital goods

---

#### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO<sub>2</sub>e)

127,911.31

#### Emissions calculation methodology

Spend-based method

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

0

**Please explain**

Capital goods calculations are made by matching the monetary values purchased with the relevant emission factors in the USEEIO model.

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

---

**Evaluation status**

Relevant, calculated

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

32,749.06

**Emissions calculation methodology**

Average data method

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

0

**Please explain**

The data covers: \* Upstream emissions of purchased fuels such as Natural gas, LPG, propane, methanol, diesel oil and gasoline; \*Transmission & distribution losses arising from purchased electricity . \*Upstream emissions of purchased electricity. Fuel consumption data and electricity consumption data used in Scope 1 and Scope 2 are used to calculate this category. Emission factors are obtained from the DEFRA 2021 emission factors database. The calculation methodology is based on the GHG Protocol Corporate Value Chain - Scope 3 Standard.

**Upstream transportation and distribution**

---

**Evaluation status**

Relevant, calculated

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

133,357.03

**Emissions calculation methodology**

Distance-based method

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

95

**Please explain**

For this category, specific transported weight data and specific transported distance data have been obtained from per transportation supplier of Ford Otosan. Emission

factors are obtained from DEFRA 2021 emissions factors database. Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

## Waste generated in operations

---

### Evaluation status

Relevant, calculated

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

2,057.02

### Emissions calculation methodology

Waste-type-specific method

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

0

### Please explain

This data is the sum of hazardous & scrap wastes which are provided by Ford Otosan and reported to the Ministry in the reporting year. This category includes solid waste management according to specific disposal method, and wastewater treatment operations. Solid waste amounts per waste type have been collected from waste management data sheets which are also submitted to the ministry. Wastewater amounts have been collected from waste water meters, for Kocaeli and Eskişehir facilities. Emission factors are obtained from DEFRA, 2021 emissions factors database. Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard. This data is based on the calculation of the total of hazardous and scrap waste supplied by Ford Otosan and reported to the Ministry in the relevant reporting period, using DEFRA 2021 emission factors. This category includes solid waste management according to the specific disposal method.

## Business travel

---

### Evaluation status

Relevant, calculated

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

190.64

### Emissions calculation methodology

Distance-based method

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

0

### Please explain

Port to port flight data and flight distance were collected from Ford Otosan's travel agency. Flight distance data was multiplied with the air travel emissions factors.

Emission factors are obtained from DEFRA, 2021 emissions factors database.  
Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

## Employee commuting

---

### Evaluation status

Relevant, calculated

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

5,045.88

### Emissions calculation methodology

Distance-based method

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

0

### Please explain

This data covers the emissions generated from the transportation (roadway) of employees by daily shuttle busses. Travelled distance data was provided by the supplier. These data include emissions from the daily transportation of employees by shuttle buses (road). Distance traveled data provided by the supplier. Employee commuting data is multiplied by air travel emission factors. Emission factors are obtained from the DEFRA 2021 emission factors database. The calculation methodology is based on the GHG Protocol Corporate Value Chain - Scope 3 Standard.

## Upstream leased assets

---

### Evaluation status

Not relevant, explanation provided

### Please explain

There is no leased assets of Ford Otosan in the upstream activities.

## Downstream transportation and distribution

---

### Evaluation status

Relevant, calculated

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

147,097.99

### Emissions calculation methodology

Distance-based method

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

0

#### Please explain

This category covers the outbound transportation and distribution services that are purchased by Ford Otosan, and are excluded from this category according to GHG Protocol Scope 3 Standard, and already covered in Upstream transportation and distribution emissions. For this category, specific weight data and specific distance transported on the basis of Ford Otosan customers are obtained. Emission factors are obtained from the DEFRA 2021 emission factors database. The calculation methodology is based on the GHG Protocol Corporate Value Chain - Scope 3 Standard.

### Processing of sold products

---

#### Evaluation status

Not relevant, explanation provided

#### Please explain

Our products are consumer products (vehicles) and are not processed or re-processed any further after they have been sold. Consequently, the scope 3 category "Processing of sold Products" is not relevant for Ford Otosan.

### Use of sold products

---

#### Evaluation status

Relevant, calculated

#### Emissions in reporting year (metric tons CO<sub>2</sub>e)

71,182,818.78

#### Emissions calculation methodology

Methodology for direct use phase emissions, please specify

CO<sub>2</sub> emissions per km and annual mileage information are calculated for all F-MAX HCV vehicles using ConnecTruck real-world data during 1 year (2021) period. A product lifetime of 10 years are assumed for all vehicles.

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

0

#### Please explain

It is assumed that, apart from the F-MAX HCV vehicles, the life time is 15,000 km for 10 years use of sold product. For Legacy HCV vehicles, CO<sub>2</sub> emissions per km information are calculated using real-world ECUlib data of 50 vehicles (duration of 2 weeks - 1 month period for each vehicle) belonging to all CO<sub>2</sub> relevant control models. Annual mileage of Legacy HCV vehicles are calculated using service information data for all HCV vehicles from 2015 onwards. The total CO<sub>2</sub> emissions of the reporting year

covering gasoline and diesel vehicles were calculated. CO2 emissions of HCV, LCV vehicles are calculated using approximate factors from DEFRA 2021 database. Emission calculations were made for refrigerants, assuming that the refrigerant gas is filled 1.5 times during the lifetime of the vehicles and 80% of the filling is R134A and 20% is 1234YF gas.

## End of life treatment of sold products

---

### Evaluation status

Relevant, calculated

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

407,615.67

### Emissions calculation methodology

Waste-type-specific method

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

0

### Please explain

In the end of life carbon footprint calculations, calculations were made using the ADR (Assembly, Disposal, Recycling) information in the Greet program with changes in accordance with the 4 reference models. Most of the vehicles we produce are exported, so the energy data to be used in recycling processes are determined according to the energy resources of the appropriate countries.

## Downstream leased assets

---

### Evaluation status

Not relevant, explanation provided

### Please explain

The maritime emissions between Yeniköy Port (Turkey) to Ford Europe were calculated by Ford Europe who has a leasing contract. For the reason of not causing double counting in downstream leased assets' emissions, this part is not included in Ford Otosan's scope 3 emissions.

## Franchises

---

### Evaluation status

Not relevant, explanation provided

### Please explain

Our dealers network includes franchised companies or individuals. The accurate GHG emissions data collection is very difficult for short-term. But in 5 years it would be realized by CRM service data base. We predict that the full inclusion to this Scope 3 category will be in the long term time period because we can focus on scope 3 emissions where our impacts are larger and where we can affect more the transaction.

For the time being we focus on scope 3 emission categories that we can have influence more on emission reductions.

## Investments

---

### Evaluation status

Relevant, calculated

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

15,292.68

### Emissions calculation methodology

Investment-specific method

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

100

### Please explain

According to our calculation the Scope 3 emissions from “Investments” are significantly below 0,5% of the total Ford Otosan's Group Scope 3 emissions. Ford Otosan's ownership rate (0.59%) is included in the calculation over Otokar's greenhouse gas emissions.

## Other (upstream)

---

### Evaluation status

Not relevant, explanation provided

### Please explain

No other upstream emissions apart from above categories for Ford Otosan in 2021.

## Other (downstream)

---

### Evaluation status

Not relevant, explanation provided

### Please explain

No other downstream emissions apart from above categories for Ford Otosan in 2021.

## C6.7

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

Yes

## C6.7a

**(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.**

	<b>CO2 emissions from biogenic carbon (metric tons CO2)</b>	<b>Comment</b>
Row 1	255.72	Emissions from domestic waste from anthropogenic biogenic emissions were calculated as 160.51 tCO2 in 2021. Emissions from industrial waste from anthropogenic biogenic emissions were calculated as 95.11 tCO2. Ford Otosan's total biogenic emissions for 2021 are 255.72 tCO2.

## C6.10

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

### **Intensity figure**

0.0000102

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

89,843

### **Metric denominator**

unit total revenue

### **Metric denominator: Unit total**

8,801,000,000

### **Scope 2 figure used**

Location-based

### **% change from previous year**

36.47

### **Direction of change**

Decreased

### **Reason for change**

With the increase of Unit Total Revenue in 2021 and the decrease of gross global combined scope 1 & 2 emissions due to the increase in renewable energy use, the intensity figure has decreased about 36.47% in the reporting year.

### **Intensity figure**

0.258



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

89,843

**Metric denominator**

vehicle produced

**Metric denominator: Unit total**

348,030

**Scope 2 figure used**

Location-based

**% change from previous year**

24.74

**Direction of change**

Decreased

**Reason for change**

In 2020, the intensity figure was 0.348 tCO2e per vehicle produced. Due to the increase of the renewable energy use in production, our gross global combined scope 1 and 2 emissions decreased. In 2021, a 24.74% of decrease occurred in CO2e emissions per vehicle produced compared to the previous year.

## C7. Emissions breakdowns

### C7.1

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

Yes

### C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	81,296.84	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	62.35	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	282.88	IPCC Fifth Assessment Report (AR5 – 100 year)

HFCs	6,408.41	IPCC Fifth Assessment Report (AR5 – 100 year)
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## C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	88,050.49

## C7.3

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

By facility

By activity

### C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Kocaeli Plant (Gölcük+Yeniköy)	69,616.53	40.717352	29.851182
Eskişehir (old name İnönü) Plant	16,153.74	39.842081	30.121566
Sancaktepe	2,280.21	40.974679	29.23206

### C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Stationary Combustion	63,389.31
Mobile Combustion	17,669.74
Stationary Refrigerants	3,164.81
Mobile Air Conditioning	3,227.35
Welding Process & Fire Ext.	16.26
Process Oils	47.07
VOCs	535.95

## 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 CO<sub>2</sub>e.

	Gross Scope 1 emissions, metric tons CO <sub>2</sub> e	Comment
Transport OEM activities	88,050.49	Transport OEM activities are calculated as 88050.49 tCO <sub>2</sub> in 2021.

## C7.5

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

Country/Region	Scope 2, location-based (metric tons CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)
Turkey	115,639.19	1,791.92

## 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 CO <sub>2</sub> e)	Scope 2, market-based (metric tons CO <sub>2</sub> e)
Kocaeli Plant (Gölcük+Yeniköy)	92,292.31	0
Eskişehir ( Old name İnönü) Plant	20,812.2	31.2
Sancaktepe	2,534.67	1,760.72

## 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 CO<sub>2</sub>e.

	Scope 2, location- based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport OEM activities	115,639.19	1,791.92	In 2020, we purchased 651,171 GJ of renewable electricity, achieving a reduction of 84,309 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of May 2020, our Gölcük, Yeniköy and Eskişehir Campuses procure all their electrical energy from 100% renewable sources. As of September 2021, electricity supply for the Sancaktepe location has been provided from 100% renewable energy with I-REC certificates. Thus, our market based scope 2 emissions calculated to be 0. In 2021, 946,317.59 GJ of renewable electricity. Location-based Scope 2 emissions in 2021 were calculated as 115,639.19 tCO2e. Market-based emissions are calculated as 1,791.92 tCO2e. Last year, with the IREC certificate on a location-based basis, the renewable energy supply value was deducted, and the emission was determined on a location-based basis. Therefore, a direct comparison with the previous year cannot be made.

## 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

Light Duty Vehicles (LDV)

### Emissions intensity figure

0.0003

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

56,865,116

### Metric denominator

t.km

### Metric denominator: Unit total

181,281,270,000

**% change from previous year**

40.5

**Vehicle unit sales in reporting year**

349,135

**Vehicle lifetime in years**

10

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

45,900

**Load factor**

1

**Please explain the changes, and relevant standards/methodologies used**

A product lifetime of 10 years and approximately 45900 km annually are assumed for all LCV & MCV vehicles. All calculated Scope3 product in-use CO2 emissions are increased by 1% to reflect the effect of CH4 and N2O emissions. CO2 emissions of LCV are calculated using approximate factors from DEFRA tool. Change from previous year represents the change of vehicle unit sales. Emissions seem to have increased due to the methodological difference.

---

**Activity**

Heavy Duty Vehicles (HDV)

**Emissions intensity figure**

0.00139

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

13,910,221

**Metric denominator**

t.km

**Metric denominator: Unit total**

10,000,857,380

**% change from previous year**

-17.9

**Vehicle unit sales in reporting year**

12,466

**Vehicle lifetime in years**

10

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

53,201

**Load factor**

1

**Please explain the changes, and relevant standards/methodologies used**

CO2 emissions per km and annual mileage information are calculated for all F-MAX HCV vehicles using ConnecTruck real-world data during 1 year period. For Legacy HCV vehicles, CO2 emissions per km information are calculated using real-world ECUlib data of 50 vehicles (duration of 2 weeks - 1 month period for each vehicle) belonging to all CO2 relevant control models. Annual mileage of Legacy HCV vehicles are calculated using service information data for all HCV vehicles from 2015 onwards. A product lifetime of 10 years are assumed for all vehicles. All calculated Scope3 product in-use CO2 emissions are increased by 1% to reflect the effect of CH4 and N2O emissions. CO2 emissions of HCV are calculated using approximate factors from DEFRA tool. Change from previous year represents the change of vehicle unit sales. Emissions seem to have increased due to the methodological difference.

## 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?**

Decreased

## C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	29,538.63	Decreased	26.26	Compared to last year, our renewable energy use increased by 45.33% with the I-REC certificate in 2021. Thus, 29538.63 tCO2e greenhouse gas reduction was achieved. The decrease of emission percentage (%) = $29538.63 / 112483.15 \times 100$ =26.26%
Other emissions	1,495.76	Decreased	1.33	Thanks to our climate change mitigation activities a total of 1495.76 tCO2e emission reductions were achieved in 2021. The decrease of

reduction activities				emission percentage (%) = $1495.76 / 112483.15 \times 100 = 1.33\%$
Divestment	0	No change	0	There is no change in emissions that are identified due to divestment in 2021.
Acquisitions	0	No change	0	There is no change in emissions that are identified due to acquisitions in 2021.
Mergers	0	No change	0	There is no change in emissions that are identified due to mergers in 2021.
Change in output	8,393.65	Increased	7.46	Ford Otosan increased their production in 2021 and almost all of the increase in GHG emissions are due to increase in production. The increase of emission percentage (%) = $8393.65 / 112483.15 \times 100 = 7.46\%$
Change in methodology	0	No change	0	There is no considerable change in emissions that are identified due to changes in methodology in 2021.
Change in boundary	0	No change	0	There is no considerable change in emissions that are identified due to changes in boundary in 2021.
Change in physical operating conditions	0	No change	0	We assume that there is no significant change in physical operating conditions in 2021 compared to 2020.
Unidentified	0	No change	0	The reason for almost all the changes are explained in other sections. Therefore, we report unidentified reasons as zero.
Other	0	No change	0	The reason for almost all the changes are explained in other sections. Therefore, we report other reasons as zero.

## 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?**

Location-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	No

### 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)		0	377,350.59	377,350.59
Consumption of purchased or acquired electricity		262,866	4,137.44	267,003.44
Total energy consumption		262,866	381,488.03	644,354.03



## 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

LHV

#### Total fuel MWh consumed by the organization

0

#### Comment

Our company does not use any sustainable biomass in our operations.

### Other biomass

#### Heating value

LHV

#### Total fuel MWh consumed by the organization

0

#### Comment

Our company does not use any other biomass.

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

#### Heating value

LHV

**Total fuel MWh consumed by the organization**

4,137.44

**Comment**

Our company does not use any other renewable fuels.

**Coal**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

0

**Comment**

Our company does not use any coals.

**Oil**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

69,509.11

**Comment**

Our company use diesel oil and gasoline and fuel-oil in our operations. Diesel oil is used both in generators to generate electricity and in our vehicles (trucks, company cars etc.), gasoline is used in our company cars and fuel-oil is used for both electricity generation and heat production.

**Gas**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

307,153.35

**Comment**

Our company uses Natural gas and LPG in our operations. Natural gas is mainly used to generate electricity, to produce steam and heat for the processes and heating purposes. LPG is used to produce heat for the industrial processes.

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

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

688.13

**Comment**

Our company uses other non-renewable fuels such as, methanol and propane etc.

**Total fuel**

---

**Heating value**

LHV

**Total fuel MWh consumed by the organization**

377,350.59

**Comment**

Total fuel MWh consumed by Ford Otosan in 2021 is calculated as 377350.59 MWh.

**C8.2e**

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

---

**Sourcing method**

Unbundled energy attribute certificates (EACs) purchase

**Energy carrier**

Electricity

**Low-carbon technology type**

Hydropower (capacity unknown)

**Country/area of low-carbon energy consumption**

Turkey

**Tracking instrument used**

I-REC

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

262,866

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

Turkey

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

2,020

**Comment**

We procure renewable energy directly to meet the energy efficiency and greenhouse gas emission reduction targets. In 2020, we purchased 651,171 GJ of renewable electricity, achieving a reduction of 84,309 tons in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of May 2020, our Gölcük, Yeniköy and Eskişehir. As of September 2021, electricity supply for the Sancaktepe location has been provided from 100% renewable energy with I-REC certificates. In 2021, we prevented a greenhouse gas emission amounting to 113,847.26 tons of CO<sub>2</sub> by purchasing renewable electric energy of 946,317.59 GJ. Our Scope 2 emissions were 1791.92 tCO<sub>2</sub>e in 2021. Campuses procure all their electrical energy from 100% renewable sources. Thus, our market based scope 2 emissions calculated to be 0 from 2022.

## C8.2g

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

---

**Country/area**

Turkey

**Consumption of electricity (MWh)**

4,137.44

**Consumption of heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

4,137.44

## C-TO8.5

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

---

**Activity**

Light Duty Vehicles (LDV)

**Metric figure**

0.64

**Metric numerator**

MWh

**Metric denominator**

Production: Vehicle

**Metric numerator: Unit total**

213,097

**Metric denominator: Unit total**

335,285

**% change from previous year**

-0.7

**Please explain**

For the reporting year, the figure for Kocaeli Plant (Gölcük + Yeniköy) is 0.636 MWh/vehicle

Previous year's realization was 0.64 MWh /vehicle.

The metric numerator is the energy consumption of the facilities.

The energy used in total is 0.7% less than the previous year.

---

**Activity**

Heavy Duty Vehicles (HDV)

**Metric figure**

3.77

**Metric numerator**

MWh

**Metric denominator**

Production: Vehicle

**Metric numerator: Unit total**

48,054

**Metric denominator: Unit total**

12,745

**% change from previous year**

-27.21

**Please explain**

For the reporting year 2020, the figure for Eskişehir plant is 3.77 MWh/vehicle;  
Previous year's realization was 5.18 MWh /vehicle.

The metric numerator is the energy consumption of the facility.

The reason of this decrease is:

The number of vehicles produced increased by approximately 6.13%. This resulted in a 27.21% reduction in the metric figure for the reporting year.

## C9. Additional metrics

### C9.1

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

---

**Description**

Waste

**Metric value**

96,602,717.28

**Metric numerator**

All units are entered as kg.

**Metric denominator (intensity metric only)**

N/A

**% change from previous year**

13

**Direction of change**

Decreased

**Please explain**

At Ford Otosan, we develop projects and applications for minimizing waste at source, using resources more efficiently, researching the reuse of waste as part of a circular economy or as alternative raw materials, and reducing the waste regularly sent to landfills to achieve financial savings. We support the “Zero Waste” program launched by the Ministry of Environment and Urbanization. In the context of this program, we raise awareness among the employees about waste, sort waste at source and recycled it through licensed facilities. Pursuant to regulations, inspections were completed at the Eskişehir Plant, Kocaeli Plants, and Sancaktepe Campus. As a result of these inspections, all Ford Otosan campuses now manage waste effectively with “Zero Waste Basic Level Certification”. With the measures and practices in place to reduce waste, we saved 2 million pieces of paper annually. The objective of the Composting Machine Production and Composting Applications Project that we launched in 2020 to promote composting organic waste. This process will help reduce the waste going to landfills and the compost will be used in planting and growing saplings. As part of the project, we compost organic waste from landscaping activities and the cafeterias as well as sawdust waste in the composting machine, which was developed by our employees and that uses waste heat. In 2021, we obtained nearly 124.5 kg of compost, which was used in landscaping. The project’s outputs were presented with the title “Domestic Waste Composting:An Application in the automotive Industry” by a student doing his thesis with us at the Project Fair organized at Eskişehir Technical University’s (ESTU) School of Engineering. We launched a project to separate the Cataphoresis Lines to reduce the

quantity of waste created in the paint shop, save financially, and alleviate the burden on the treatment plant. The membrane system developed specifically for the project delivered benefits such as separating solid waste from wastewater, saving on equipment, and reducing process-specific waste generation by 90%. With the project, we eliminated the cost of disposing nearly 180 tons of waste and saved TL 120 thousand annually.

## C-TO9.3/C-TS9.3

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

---

### Activity

Light Duty Vehicles (LDV)

### Metric

Production

### Technology

Plug-in hybrid vehicle (PHEV)

### Metric figure

1,432

### Metric unit

Units

### Explanation

In the reporting year 1432 units of PHEV were produced. In line with our mission of leading the transformation of the automotive industry in electric vehicles, we are currently in the process of undertaking one of the biggest investments in the Turkish private sector. In December 2020, we received the investment incentive certificate for our investment project, which will exceed TL 20 billion and continue until 2026.

#### ELECTRIC FORD TRANSIT

In line with our goal to expand our product range with zero-emission vehicles, we continue our studies to develop fully electric models of Ford Transit along with its hybrid version. The vehicle will be able to travel 200 km with one completely charged battery.

#### ELECTRIC BATTERY PRODUCTION

Batteries constitute one of the most important issues for us in terms of developing and popularizing electric and hybrid vehicles. So, Ford Otosan will produce the electric batteries to be used in commercial vehicles, as the first factory among all Ford factories in Europe.

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### Activity

Light Duty Vehicles (LDV)

**Metric**

Production

**Technology**

Other, please specify

MHEV

**Metric figure**

12,680

**Metric unit**

Units

**Explanation**

In the reporting year 12680 units of MHEV were produced. In line with our mission of leading the transformation of the automotive industry in electric vehicles, we are currently in the process of undertaking one of the biggest investments in the Turkish private sector. In December 2020, we received the investment incentive certificate for our investment project, which will exceed TL 20 billion and continue until 2026.

**ELECTRIC FORD TRANSIT**

In line with our goal to expand our product range with zero-emission vehicles, we continue our studies to develop fully electric models of Ford Transit along with its hybrid version. The vehicle will be able to travel 200 km with one completely charged battery.

**ELECTRIC BATTERY PRODUCTION**

Batteries constitute one of the most important issues for us in terms of developing and popularizing electric and hybrid vehicles. So, Ford Otosan will produce the electric batteries to be used in commercial vehicles, as the first factory among all Ford factories in Europe.

**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	We have the most competent R&D organization of the Turkish automotive industry through 1,688 R&D employees and our technical infrastructure. We're the only automotive company in Turkey which is able to design an entire car including the interior and exterior visual design. While global trends affect the transformation of the automotive industry, there is a need to focus on different topics alongside traditional products and services. In addition to the conventional automotive products and services that develop with technological transformation, we invest in R&D in the fields of fuel



		<p>optimization, reduction of CO2 emissions, development of connected and autonomous vehicles, production of electric vehicles, electrification and development of light vehicle technologies. We follow up national and international R&amp;D funds to increase these investments. Using the know-how of R&amp;D employees, we manage every critical process related to the automotive industry and we carry out numerous projects on developing engine and power transmission systems that make up the vehicle, the interior and exterior body, chassis systems, electrical and electronic systems, and light parts. We consider life cycle (Life Cycle Assessment - LCA) approaches within the scope of recycling and part service life assessment. We take part as a project partner in the projects funded by the European Union, especially the Horizon 2020. Our R&amp;D programs include software innovations, recovery of precious metals used in the automotive sector, development of emission control systems, development of programmable systems for smart vehicles, modelling of electric vehicles and components, automotive applications of visible light communication, and 5 G technologies for assisted, connected and autonomous mobility. The number of regulations to decrease the effects of the automotive sector on the climate crisis is increasing day by day. Based on the regulations for reducing CO2 emissions and the goals of reducing emissions per vehicle, the industry heads towards R&amp;D activities to reduce vehicle weight. Reducing vehicle weight also creates potential for improving the range of electric vehicles that are expected to become widespread in the industry.</p>
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## 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

Light Duty Vehicles (LDV)

### Technology area

Electrification

### Stage of development in the reporting year

Large scale commercial deployment

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

81-100%

### R&D investment figure in the reporting year (optional)

### Comment

#### ELECTRIC FORD TRANSIT

In line with our goal to expand our product range with zero-emission vehicles, we continue our studies to develop fully electric models of Ford Transit along with its hybrid version. The vehicle will be able to travel 200 km with one completely charged battery. In 2019, we re-introduced the Transit model to the market. We started mass production of Ford Transit Custom Rechargeable Hybrid and EcoBlue Hybrid models - for the first time in its segment - produced in the Gölcük Plant and with all manufacturing engineering performed by Ford Otosan. Our Ford Transit Custom Rechargeable Hybrid vehicle received the 2020 International Van of the Year (IVOTY) award.

Given that the technologies evolve and advance constantly, we expanded the scope of our vehicle safety-related activities to include electric vehicles in 2020. Unlike internal combustion engines, we completed our work, which also included high voltage systems and battery safety in electric vehicles, on Ford Transit vehicles for Europe and North America. Ford Transit Custom Hybrid, whose vehicle safety work was conducted out at the Ford Otosan R&D center, was tested by Euro NCAP, which confirmed that it has the same performance as the Transit Custom Diesel that was rated 5 stars in 2012.

Furthermore, Ford Transit was retested in 2020 by NHTSA, the US safety testing agency due to the changes to the safety systems (airbags, seat belts) and maintained its previous 4-star performance.

Specific confidentiality constraints prohibiting the disclosure of the investment figure

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#### Activity

Light Duty Vehicles (LDV)

#### Technology area

Electrification

#### Stage of development in the reporting year

Full/commercial-scale demonstration

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

81-100%

#### R&D investment figure in the reporting year (optional)

#### Comment

Batteries constitute one of the most important issues for us in terms of developing and popularizing electric and hybrid vehicles. So, Ford Otosan will produce the electric batteries to be used in commercial vehicles, as the first factory among all Ford factories in Europe.

According to the International Energy Agency's (IEA) report on electric vehicles, more than 10 million electric cars were on the world's roads in 2020 and this global stock is expected to reach 145 million by 2030. The same study shows that sales of electric vehicles in the first quarter of 2021 increased by 140% year on year.

At Ford Otosan, we follow the developments closely while working on electric vehicles.

With the EU funded Albatross Project, a part of Horizon2020, we are designing a modular battery pack based on smart batteries combined with lightweight designs to be integrated into light commercial and heavy commercial vehicles. The project's objective is to increase the energy density of the prototype battery by 50% compared to the existing battery pack, reduce charging time by 25% and weight by 20%, and extend the total lifetime of the battery.

Specific confidentiality constraints prohibiting the disclosure of the investment figure.

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**Activity**

Heavy Duty Vehicles (HDV)

**Technology area**

Smart systems

**Stage of development in the reporting year**

Full/commercial-scale demonstration

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

61-80%

**R&D investment figure in the reporting year (optional)**

0

**Comment**

ELECTRIC GARBAGE TRUCK

We continue our activities to develop electric vehicles and their components in the heavy-duty vehicle segment as well. As part of "E-Truck" project, we completed the first prototype of an electric garbage truck. We continued our efforts on the electric waste truck prototype named E-Truck, which we developed in the heavy commercial vehicle segment in order to reduce the emissions. By conducting city tests, we identified the energy consumption effect of a vehicle. We achieved 1.65 ton CO<sub>2</sub>/day emission reduction for one vehicle in two shifts operation and 165 ton CO<sub>2</sub>/day for 100 units. While the studies carried out prepared our engineering teams for the new generation technologies more, we also revealed the great opportunities of electric vehicles in the heavy vehicles class. While continuing to develop on the E-Truck, we will also speed up the production of new electric vehicles for long-term customer testing.

Specific confidentiality constraints prohibiting the disclosure of the investment figure

## C10. Verification

### C10.1

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

Verification/assurance status
-------------------------------

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

## C10.1a

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

---

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

1

 Ford\_VOS FINAL\_2021.pdf

**Page/ section reference**

Ford Otosan ISO 14064:2018 Verification Report

**Relevant standard**

ISO14064-1

**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**

Limited assurance

**Attach the statement**

1

 Ford\_VOS FINAL\_2021.pdf

**Page/ section reference**

Ford Otosan ISO 14064:2018 Verification Report

**Relevant standard**

ISO14064-1

**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: Capital goods

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

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

1

 Ford\_VOS FINAL\_2021.pdf

**Page/section reference**

Ford Otosan ISO 14064:2018 Verification Report

**Relevant standard**

IS)14064-1

**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

### C11.1

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

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

### C11.1d

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

Türkiye became a party to the Paris Agreement in 2021, the 2053 net zero emission target has been set. It is of great importance that the carbon pricing implementation, which is an important instrument in GHG reduction will be developed as a continuation of the preparatory activities carried out in our country regarding the matter by receiving the opinions and suggestions of all relevant stakeholders. It is believed that the national emissions trading system, which will be designed in the light of the data in the infrastructure of the Monitoring, Reporting and Verification (MRV) system, which has been maintained in our country since 2015, will be the most important part of the carbon pricing practice to be implemented in our country.

The phase 2 of PMR project studies with the World Bank sponsorship, started in 2019, and pilot workshops and practices focusing on different ETS designs were practiced with the participating companies. In Turkey, emission data is reported to the Ministry annually by high energy intensive sectors according to the MRV regulation. Ford Otosan is in the scope of this regulation. We are ready to comply with the schemes when the market is once established in Turkey. National ETS can influence our company in 2021-22.

The Green Deal is a response to the challenges the world. The main idea is to transform the economy into a clean and circular system, while cutting pollution and restoring biodiversity (A European Green Deal). Starting with iron, steel, aluminum, fertilizer and electricity sector Europe will issue Carbon Border Adjustment Mechanism for imports to the continent. The Mechanism is expected to extend to other sectors including automotive industry in the medium to long term. Europe is one of the top destinations that Ford Otosan is exporting and that is why the company is working with external consultants to analyze different scenarios on the matter.

As part of our involvement in this new approaching system, we upgraded our Energy Management Systems ISO 50001. In 2021 ISO 14064-1: 2018 has been integrated to the audit

process. Ford Otosan is invited to attend the workshops by the MoEUCC (Ministry of Environment, Urbanization and Climate Change). The Executive Committee is informed by the experts who attend the meetings.

We monitor the energy consumption and GHG emissions per vehicle in line with our goals. Furthermore, we monitor the energy consumption in our factories in real-time thanks to our smart factory applications. Therefore, we are able to make the necessary corrections in the fastest way possible if we are below the level of target, we set for ourselves. Our smart factory applications enable automation in energy consumption and enable us to optimize our resource consumption. At Ford Otosan, we have been the most efficient production line of Ford Europe in terms of energy consumption per vehicle 3.95 GJ per vehicle in the reporting year (5.42 GJ/vehicle & 4.81 GJ/vehicle in 2018 & 2019). Our target for 2021 was 5.23 GJ/ Vehicle and we already achieved it. Ford Otosan's strategy to comply with the upcoming schemes is to leverage the CO2 emissions reduction and energy use reduction strategies.

To determine some of the options for compliance, our organisation is planning to work on financial status aligned with PMR phase 2 project outcomes. The risk analysis to consider the cash flow impacts of the cap & trade system will be essential for the system that we anticipate participating. Ford Otosan set some internal carbon price (shadow price) by using future climate policies and regulations as a key input to make strategic investment decisions . Following the technological transformation in the automotive industry, and in addition to traditional automotive products and services, advanced R&D studies are carried out in the areas of carbon dioxide emissions reduction, connected vehicles, autonomous vehicles, electric vehicles and electrification, and light vehicle technologies. Investments in R&D infrastructure continue for long term compliance.

In order to capture the opportunities aligned with low carbon economy scenarios, Ford Otosan has participated to European Union-funded research projects, particularly the Horizon 2020 program funding (26 in total by the end of 2021). Together with leading teams of the industry and related technological fields, Ford Otosan teams continue their R&D activities areas in the fields of software innovations, development of control systems for optimum emissions in heavy-duty service vehicles, exploration of recycling opportunities for the precious metals used in the automotive industry, modelling and testing of electric vehicles and their components, development of autonomous vehicles, development of programmable systems for smart vehicles, automotive applications of visible light communication, and 5G technologies for assisted, connected and autonomous mobility.

## C11.2

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

No

## C11.3

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

Yes

## C11.3a

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

### **Objective for implementing an internal carbon price**

- Stakeholder expectations
- Change internal behavior
- Drive energy efficiency
- Drive low-carbon investment
- Identify and seize low-carbon opportunities

### **GHG Scope**

- Scope 1
- Scope 2

### **Application**

We have a voluntary target to purchase certified carbon credits for the purpose to diminish the absolute company-wide total GHG emissions generated in the reporting period. As a first step, our aim is to offset the Scope 2 emissions via this target. The actual price figure provided was used as the offsets of our emissions.

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

1

### **Variance of price(s) used**

The latest negotiations on mitigation and adaptation measures of Paris Agreement will bring potential possibilities of additional regulations coming into force in the mid-term. The Cap and Trade system is internalized by EU-ETS. As a candidate country, Turkey's target is to be ready to the future emission reduction resolutions that the emerging markets will engage. The Implementation phase of this system is now in the agenda of Turkish Ministry of Environment & Urbanization. The phase 2 of PMR project studies with the World Bank sponsorship, started in 2019, and pilot workshops and practices focusing on different ETS designs were practiced with the participating companies. During the workshops \$47t CO<sub>2</sub>-e was fixed as an optimum carbon price for Turkey. In the reporting year, the Implementation phase of emerging cap & trade system was in the agenda of Turkish Ministry of Environment & Urbanization. The phase 2 of PMR project studies with the World Bank sponsorship, was completed with the digital conference held on January 27, 2021.

In Phase 2 of the project, extensive studies were carried out to establish the legal and technical infrastructure for the implementation of the pilot ETS. With these studies, the legal and institutional infrastructure has been established for the implementation of the emissions trading system in Turkey. At the same time, cap and allocation plans were created for the ETS, an ETS simulation application was developed, a registration system software infrastructure was developed for the ETS, and Article 6 of the Paris Agreement was evaluated in terms of Turkey.



### **Type of internal carbon price**

Shadow price  
Offsets

### **Impact & implication**

Our country is in the process of establishing a carbon pricing mechanism, most likely an emissions trading scheme that we try to make the best estimation by applying an internal price on carbon before the establishment of this new system.

Ford Otosan considers voluntary market average price as part of an internal goal to offset the Scope 2 emissions. The financial impact of this voluntary activity is low, it will not impact our business.

We procure renewable energy directly to meet the energy efficiency and greenhouse gas emission reduction targets. In 2021, we purchased 946,317.59 GJ of renewable electricity, achieving a reduction of 113,831.24 tons CO2 in greenhouse gas emissions. We hold internationally recognized certifications, confirming that as of May 2020, our Gölcük, Yeniköy and Eskişehir Campuses procure all their electrical energy from 100% renewable sources. September 2021, Sancaktepe location procure all their electrical energy from 100% renewable sources also.

## **C12. Engagement**

### **C12.1**

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

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

### **C12.1a**

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

---

#### **Type of engagement**

Information collection (understanding supplier behavior)

#### **Details of engagement**

Collect climate change and carbon information at least annually from suppliers

#### **% of suppliers by number**

70

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

92

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

95

### **Rationale for the coverage of your engagement**

Our activities are carried out within our sustainable business model. Monitoring and developing of sustainability performance of our suppliers is as important as managing the economic, social and environmental impacts of our company. In order to survey our Suppliers' activities and for the purpose to take precautionary measures we use a "Supplier Sustainability Survey" where Climate change questions are inserted. Such as: Electricity, water and fuel consumption data. This survey covers our main subcontractors with a total of 92% of our purchasing revenue. For our 2020 inventory 70% of them submitted their electricity, water and fuel consumption data that correspond to their production for Ford Otosan. We plan to extend this coverage to 100% in 3 years. As a company working with 2,197 suppliers in 40 countries, we manage the impact and uncertainties in the supply chain effectively.

In line with our low carbon transition goals and the Supplier sustainability Evaluation and Development process carbon road maps will be developed with our suppliers.

Suppliers are categorized on the basis of products (Metals, Polymers, Adhesives-Paints, Glass-Organic materials, Electronics, Liquids, Oils, Fuels) and carbon emissions calculation studies are carried out for raw materials.

As a priority, the aim is to work with metal and plastic suppliers, that has relatively higher carbon emissions.

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

We attach great importance to the fact that our suppliers totally comply with the global Ford Q1 certification criteria showing their commitment to sustainable processes and operations. We monitor the compliance of our suppliers with the quality and operational standards through comprehensive audits. We contribute to the development of our suppliers with five different audits and field visits. We care about monitoring ESG conditions for all purchase processes and auditing suppliers periodically. We conducted Manufacturing Site Assessments with nearly 170 of our vehicle parts suppliers, also visited 290 suppliers and made 51 Q1 certification assessments to improve delivery performance and support serial production. Q1 audits: We carry out our main audits through the Number One in Quality certification system. Capacity audits: We carry out audits within the scope of Ford Motor Company (FMC) global capacity audits.

Production issues: We conduct field visits to resolve any problems and challenges suppliers face during production. Performance development: We work on auditing and performance development based on certain criteria by identifying suppliers that are open to improvement through FMC global system. Risk management: We take actions to prevent possible risks in areas such as natural disasters, fire and union-related risks by visiting suppliers. We also conduct a separate supplier risk assessment, where the criteria of shipment, quality performance, capacity adequacy and financial status are taken into account. The suppliers are categorized after the evaluation of their responses as 'high risk', 'middle risk', 'acceptable', 'good', 'excellent'. Our measure of success is to increase the rate of suppliers positioned in the 'acceptable' range to the "good range".

The supplier identification and evaluation questionnaire is applied to suppliers to collect data of environmental management system such as ISO 14001 certification, process usage water, licences of waste water discharge, hazardous waste temporary storage permission, legal declaration, greenhouse gas monitoring plan and verification report.

As a result of detailed evaluations, it has been determined that 97% of our related suppliers have Environmental Management System, 93% possess Hazardous Waste Area, 92% practice Industrial Waste management System and 88% have their own Environmental Officer.

### **Comment**

We designed the Supplier Sustainability Assessment and Development Program. By filling out the Sustainability self-assessment questionnaire to the predetermined suppliers within the scope of the program, we aim to complete the evaluation process and increase their awareness on ESG issues.

Trainings have been planned for suppliers on environmental, social and carbon management

Information. Good practices will also be shared during the trainings. Some of the content include:

- Sustainability within the scope of environmental, social, economic and carbon management,
- Sustainable development and its dimensions, harmonization with sustainable development goals and business models, formation of sustainability strategy in institutions, environmental sustainability, environmental management.

---

### **Type of engagement**

Engagement & incentivization (changing supplier behavior)

### **Details of engagement**

Run an engagement campaign to educate suppliers about climate change

Provide training, support, and best practices on how to make credible renewable energy usage claims

### **% of suppliers by number**

15

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

30

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

0

### **Rationale for the coverage of your engagement**

In line with our low carbon transition goals and the Supplier sustainability Evaluation and Development process carbon road maps will be developed with our suppliers.

Suppliers are categorized on the basis of products (Metals, Polymers, Adhesives-Paints, Glass-Organic materials, Electronics, Liquids, Oils, Fuels) and carbon emissions calculation studies are carried out for raw materials.

As a priority, the aim is to work with metal and plastic suppliers, that has relatively higher carbon emissions.

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

Number of suppliers which calculations GHG emission.

### **Comment**

Ford Otosan's goal of transitioning to low carbon is primarily to work with metal and plastic suppliers that have relatively higher carbon emissions.

## **C12.1b**

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

---

### **Type of engagement & Details of engagement**

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

### **% of customers by number**

100

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

50

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

We work with all our employees, dealers and suppliers to ensure that our customers have access to the best services and products. We carry out many studies and create action plans to determine appropriate communication methods for all stakeholders in the Ford Otosan value chain. It is very important to create a common culture of cooperation with our customers at the center, especially with our dealers who are in one-to-one communication with our customers. Our vision is "Being Turkey's most valuable and most preferred industrial company" we believe that digital transformation is the key to improve our business, create new job opportunities, and achieve our vision. We started out by creating a five-year road map by reviewing our existing processes and systems. We categorized and kick started our digital transformation studies under 5 sections varying from our dealers to customers, suppliers to employees, and design to production. We are intelligently adapting new technologies to our production lines while acknowledging the essential requirements of cost benefits, quality, continuity, and security. It is our longterm mission to safely protect the data, to create a solid communication web within different departments, and to correctly analyse the data in order to make accurate decisions. Customers continue to drive transformation in the automotive industry in line with the digitalization trends, new technologies, and demographic changes. We aim to deliver ultimate customer satisfaction even as demands and expectations evolve. We have formed a team to analyze customer needs about Electric Vehicle (EV) and develop solutions to meet these needs. Necessary investments have been made to dealers, including charging structures, special tools and

equipment, to serve customers both in the sales and after-sales of EV. Together with all our partners across the Ford Otosan value chain, we strive to create a customer experience beyond expectations and review our processes and products based on the sales/after-sales feedback received from our customers. We design online and mobile services by considering the experience before, during and after a purchase. In managing all customer relations processes, we are guided by the ISO 10002 CSMS. As of 2020, the number of customers registered in our customer relationship management system increased by nearly 3% to reach 3.7 million.

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

One of the basic strategies of the company is to achieve perfect customer satisfaction regarding the products and services we market. With this aim, many research studies and numerical measurements are carried out by the company and other independent sources to achieve product quality as well as perfect sales and after-sales services. The fuel – efficiency performance during driving conditions is one of the after sales training served for our customers. In addition, a program has been exercised to measure dealer satisfaction numerically. In 2019, the related training is conducted covering all of our customers. In addition, a program has been exercised to measure dealer satisfaction numerically. In the light of the results of these studies and in consideration of customer demands, our activity plans are mapped out to increase product and service quality and consequently customer satisfaction. In addition to the various units in the company working on total quality, our Customer Relationship Management (CRM) Department works to answer customer needs and eliminate causes of complaints. The pandemic pushed the need to transform and redefine the customer experience further. Accordingly, we increased communications with the dealers, as the key factor in our customer relations, and continued to provide training and mentoring to support the development of their capabilities. We moved the in-class training programs we provide for our dealers to the digital platform and introduced applications such as webinars, virtual classroom training, e-learning, and online testing. In the end, 84% of administrative training, 70% of technical training, and 75% of product training programs became digital. With these ratios, we exceeded our target of moving 70% of the training programs to the digital platform.

## **C12.1d**

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

We engage in joint activities to create value in social, economic, and environmental areas with various stakeholder groups, including employees, suppliers, dealers, public institutions, NGOs, and international organizations. We focus on the improvement of the value chain to manage our operations in an integrated and effective way, and to ensure the continuity of our success. In this regard, we care about the success of our suppliers and dealers who are our main business partners. We cooperate with our business partners (SDG 17), and also contribute to their decent work and economic growth (SDG 18) by spreading our sustainability approach through audits and two-way communication. The means of communication we use for our

stakeholders in Annex-2 Stakeholders and Communication Methods is summarized in our Sustainability Report, 2021.

We provide training programs on environmental sustainability to improve the capabilities of our stakeholders across the value chain, and particularly the Ford Otosan employees. In 2021, the total training time of our employees increased by 210% to reach 38,100 person\*hours. The total training time of the subcontracted employees increased fivefold year on year and reached 3,353 person\*hours. Our environmental engineers from the Eskişehir Plant taught the ÇEV475 Environmental Legislation course at the Eskişehir Technical University Environmental Engineering Department in the fall 2021 semesters.

We launched the Recycling Heroes project to raise awareness of students about the environment and recycling. As part of this project, we share the content we create on environment and recycling with students and also carry out various informative activities. With the project that has continued since 2021, we came together with first grade students in 4 primary schools to date.

The localisation of the entire value chain, not only the end product, is our ultimate goal to maximize value added by maintaining and improving our localisation rate. It is our strategic priority to localize new technology electronic components and new materials that are lighter to emit low carbon and more durable than the existing ones. Along the value chain partners, in the context of scope 3 emissions, the impacts of activities can be managed and controlled by localisation process which brings; resource efficiency, low GHG energy sources, new markets in the low GHG economy, resilience to climate impacts. Payments to Local Suppliers are: 19.6 BLT (2021)

Ford Otosan is adopting Koç Innovation Program with the main objective to “empower all employees to innovate”. Training and communication activities that support cultural transformation have started in order to determine an innovation strategy.

In 2021, we carried out technological exploration activities in the focus areas of autonomous vehicle technologies, smart mobility, connected vehicles, customer experience, electrification and smart production at global and local events. Collaboration with 12 startups out of 330 started and the integration of innovative products and services offered by these initiatives into Ford Otosan's products and services was completed. This is also an important decision to support the startup ecosystem of the country. We held meetings with entrepreneurs, incubators, technopolises and venture capitals, both globally and throughout the country, to evaluate the possibilities of cooperation.

TUSIAD is a voluntary business organization formed by Turkey's leading entrepreneurs and business world managers. TUSIAD, as the organizations represented by its members, has an important representation ability in the Turkish economy in areas such as industry, added value, registered employment and foreign trade. There are different working groups within the association that devotes its efforts to the latest international and national developments.

Energy, Environment and Climate Change Roundtable works closely with government, NGOs, universities and knowledge institutions to tackle climate change.

Ford Otosan is also participating to meetings, workshops organized by regulatory bodies together with Koç Group or separately. Meetings attended by Ford Otosan includes the first Climate Council organized by MoEUCC, Emissions Trading Schemes.

## C12.2

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

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

## C12.2a

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

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#### Climate-related requirement

Complying with regulatory requirements

#### Description of this climate related requirement

Within the Supply chain compliance policy

To comply with all applicable environmental regulations, including Ford Otosan's Environmental and Energy Policy.

— To continuously improve their environmental performance and reduce their environmental impacts for climate change, water management, waste management and biodiversity conservation.

— Have effective monitoring systems and procedures against industrial accidents and other emergencies.

— Encourage Business Partners to improve the environmental performance of business partners and third parties.

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

100

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

100

#### Mechanisms for monitoring compliance with this climate-related requirement

Grievance mechanism/Whistleblowing hotline

Supplier scorecard or rating

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

Retain and engage

## C12.3

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

Row 1

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


Yes, we engage 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?**

Yes

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

Joint statement of ACEA-PIK on «The transition to zero-emission road freight transport» is recently released. This statement has been prepared with Ford Otosan participation and it is also signed by Ford Otosan.

 acea-pik-joint-statement-the-transition-to-zero-emission-road-freight-trans.pdf

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

Ford Otosan engages in contributing in the policy meetings solely or through Koç Group Environmental Board.

## C12.3a

**(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?**

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

Mandatory climate-related reporting

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

Mandatory carbon reporting

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

National

**Country/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**

Climate change is managed with a strategic approach whereby risks and opportunities are evaluated, extending from Koç Holding to group companies. In addition, the coordination of the issue of climate change is performed by Koç Group Environmental Board Leader in Turkish Industry and Businessmen Association (TUSIAD). Ford Otosan engaged in contributing in the issuance of a project initiated by TUSIAD. This project is called "Climate Change Mitigation Activities by Economic Tools". Comments on Emission Control Regulation were shared with the specialists of Ministry of Environment and Urbanization for "Communiqué on Green House Gases Monitoring, Reporting and Verification.

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

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

Yes, we have evaluated, and it is aligned

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

Emissions trading schemes

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

Carbon tax

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

National

**Country/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**

Climate change is managed with a strategic approach whereby risks and opportunities are evaluated, extending from Koç Holding to group companies. In addition, the coordination of the issue of climate change is performed by Koç Group Environmental Board Leader in Turkish Industry and Businessmen Association (TUSIAD). Ford Otosan engaged in contributing in the issuance of a project initiated by TUSIAD. This project is called "Climate Change Mitigation Activities by Economic Tools".

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

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

Yes, we have evaluated, and it is aligned

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

Other, please specify

Vehicle Taxes

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

Vehicle Taxes

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

National

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

Turkey

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

Support with minor exceptions

**Description of engagement with policy makers**

Ford Otosan is the member of Turkish Automotive Manufacturers Association (OSD), Turkish partner of ACEA (The European Automobile Manufacturers Association) and has presented its legislative proposals on existing vehicle taxes to policy makers through OSD.

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

Ford Otosan proposed to have lower taxes in low carbon technology vehicles.

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

Yes, we have evaluated, and it is aligned

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

Climate-related targets

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

EU Green Deal

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

National

**Country/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**

Within the scope of Green Deal the road map is managed with a strategic approach whereby risks and opportunities are evaluated, extending from Koç Holding to group companies. In addition, the coordination of the issue of Green Deal is performed by Koç Group Environmental Board Leader in Turkish Industry and Businessmen Association (TUSIAD).

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

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

Yes, we have evaluated, and it is aligned

## C12.4

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

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**Publication**

In voluntary sustainability report

**Status**

Complete

**Attach the document**

1

 2021\_surdurebilirlik\_rapor\_en.pdf

**Page/Section reference**

2021 Ford OTOSAN Sustainability Report

Strategic Management: p. 3,11, 32

Risk Management: p. 15 – 29

Sustainability Management: p. 7, 30 – 32

R&D: p. 6, 7, 38 –40

Climate Crisis and Energy Management: p. 37, 51 – 53, 67- 68

Natural Resources and Waste Management: p. 24, 54-55  
Performance Tables: p. 73-74

### Content elements

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets  
Other metrics  
Other, please specify  
Energy, water, wastes

### Comment

The Sustainability Report is prepared in sufficient detail asserted in GRI Sustainability Reporting Standards to ensure complete and true information.

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### Publication

In mainstream reports, in line with the CDSB framework (as amended to incorporate the TCFD recommendations)

### Status

Complete

### Attach the document

2

### Page/Section reference

2021 Ford OTOSAN Annual Report  
Chairman's Message: p. 32-33  
Plants and Facilities: p. 58  
R&, Test Centers, Innovation: p. 76 – 91  
Digitalization: p. 92, 143  
Sustainability Management: p. 100-113  
Risk Management: p. 22-23, 32, 141-144

### Content elements

Governance  
Strategy  
Risks & opportunities  
Other, please specify  
R&D Projects Supported by International Funds, Sustainability Principles

### Comment

The annual report is prepared in sufficient detail asserted in Corporate Governance Principles to ensure complete, true information. It is presented to the public about company operations in line with the legal requirements.

## 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
Row 1	Yes, board-level oversight	<p>Urbanization, population growth and changes in land use pose a significant threat to biodiversity. There is a lot that industries can do for the continuity of ecosystem services and conservation of biodiversity for the.</p> <p>We evaluate the impacts arising from our operations with an inclusive perspective and aim to minimize any damage to all living things that may be affected by our activities.</p> <p>As Ford Otosan, we focus on assessing the impacts of our operations on biodiversity, reducing impacts and protecting species. In this context, we cooperate with non-governmental organizations and universities. Biodiversity is emphasized within the Environment and Energy Policy.</p> <p>There is a natural wetland within the Ford Otosan Kocaeli Factories area. Located on the migration route of birds, the wetland has been preserved in its natural state. Thus, both the migration routes of the birds were not changed and the natural life in the surrounding area was preserved.</p> <p>An inventory study about the birds, flora and sea creatures had been made with the help of an NGO. As a result of the researches 130 different bird species were found in the factory area. 241 natural plant species and 36 cultivated plant was revealed at the end of the studies.</p>

### 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
Row 1	Yes, we have made public commitments only	Other, please specify Environment and Energy Policy

## C15.3

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

Does your organization assess the impact of its value chain on biodiversity?	
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years

## C15.4

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

Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years


## C15.5

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

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify Species management

## C15.6

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

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy	Sustainability Report page 56  1

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## 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.**


For more on sustainability at Ford Otosan you can visit  
<https://www.fordotosan.com.tr/en/sustainability/sustainability-approach>  
Ford Otosan 2021 Sustainability Report : 2021\_surdurebilirlik\_rapor\_en.pdf  
Ford Otosan Climate Change Action Plan : FordOtosanClimateChangeActionPlan2020EN.pdf  
Ford Otosan Environmental and Energy Policy : ford-otosan-cevre-ve-enerji-politikasi-EN.pdf  
Ford Otosan ISO 14064:2018 Verification Certificate : Ford\_VOS FINAL\_2021.pdf  
Ford Otosan Annual Report : ford21\_annual\_report\_eng\_3005\_opt.pdf  
Ford Otosan Risk Identification Form: CRDF-RISK-G\_4\_Ford Otosan Risk Identification Form.xlsx

 CRDF-RISK-G\_4\_Ford Otosan Risk Identification Form.xlsx

 ford21\_annual\_report\_eng\_3005\_opt.pdf

 Ford\_VOS FINAL\_2021.pdf

 2021\_surdurebilirlik\_rapor\_en.pdf

 FordOtosanClimateChangeActionPlan2020EN.pdf

 ford-otosan-cevre-ve-enerji-politikasi-EN.pdf

### C16.1

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

	Job title	Corresponding job category
Row 1	HR Director	Director on board

## 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