Welcome to your CDP Climate Change Questionnaire 2021

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 2020 by the export of vehicles and spare parts worth 4.9 billion USD. Ford Otosan, operating in 3 main centers with its Gölcük and Yeniköy Plants in Kocaeli, Eskişehir plant in Eskişehir, Sancaktape R&D Center and Spare Parts Warehouse in İstanbul, employs almost 12,517 people. Ford Otosan is the most valuable automotive company in Borsa İstanbul. As of year-end 2020, Ford Otosan is the seventh most valuable company on BIST with a market cap of $6 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 1,413 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 2020, 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.

In 2020, we filed five applications with Turkish Patent and 22 with international institutions. Together with these applications, Ford Otosan currently holds 126 patents, including 109 in Turkey and 17 internationally.

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. Furthermore, we disclose our performance to the public by participating in climate and water programs of Carbon Disclosure Project (CDP).

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, 2020	December 31, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

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-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?

Light Duty Vehicles (LDV)
Heavy Duty Vehicles (HDV)

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 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. 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. 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. 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.

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	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures,	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 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

	acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Assistant General Managers (COO) report their performances on energy, water, wastes and other environment/ climate related risks & opportunities to the CEO in weekly meetings. Sustainability & Energy Committee leaders brief the EC and EDRM Committee members about the R&O's that may have impact on the Risk Management Policy of the organization. The interaction between the R&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. 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. In 2020, Sourcing energy from renewable sources was our priority. Special Attention Review Meeting was scheduled and performed for the purpose to inform the EC on the carbon emissions from vehicles and plants. 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 116,694.18 tons of CO2e to 32,385.54 tons of CO2e, thus achieving a great emission reduction (84.308.64 tons of CO2e). We directly supply renewable energy in order to achieve the targets for energy efficiency and reducing greenhouse gas emissions. In 2020, we purchased 651,171 GJ of renewable electricity. With this purchase, we prevented 84,308.64 tons of CO2 e greenhouse gas emissions. We have documented with internationally valid certificates that our Gölcük, Yeniköy and Eskişehir Plants supply all of their electrical energy from 100% renewable sources as of May 2020. I-REC certificates are available.

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 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. Corporate Communications and Sustainability unit is responsible for coordinating the committee's activities.
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).

C1.3

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

	Provide incentives for the management of climate-related issues	Comment

Row 1	Yes	The incentives are positive and trigger responsible consumption and production.

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 inventivized	Comment
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 864,000 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 long term strategies which are converted to Ford Otosan's long term targets 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.
Environmental, health, and safety manager	Monetary reward	Emissions reduction project	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.
Risk manager	Monetary reward	Other (please specify) Climate related risks and opportunities	Climate related Risk & 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. Performance assessments and decisions are accomplished and reported to the executive level and factor into compensation through the Balanced Score Card.
Other, please specify Central Maintenance And Facility Manager	Monetary reward	Energy reduction target	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.
All employees	Monetary reward	Other (please specify) Innovation and leadership	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 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. 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. The OKR (Objectives and Key Results) Performance System that we launched in 2020 provides 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.
Other, please specify Re3 Project Team	Non-monetary reward	Other (please specify) Sustainability goals,energy efficiency & innovation.	We reached the finals in Plastic Recyclers Europe Awards - known as the most important competition of Europe in its field - with the Fan Hood from Recycled Materials project in the Automotive, Electric & Electronic product category. This first product was the start of the Re3 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.
Other, please specify Coorporate Communications Manager	Monetary reward	Emissions reduction target	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. The OKR (Objectives and Key Results) Performance System that we launched in 2020 provides 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.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	1	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 1- year time frame in our organization.
Medium-term	1	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 1- 5 years' time frame in our organization.
Long-term	5	12	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 5-12 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 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) 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 our 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. The study of the project is carried out for Ford Otosan in Turkey to protect their compound area in Kocaeli, Turkey. 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	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. In 2019, “Fluorinated Greenhouse Gases Amendment Regulations were added to our company's environmental risk chart. 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 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. 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.
Emerging regulation	Relevant, always included	For our company, Emerging Regulatory risks are the potential risks representing potential physical and transitional threats such as policy & legal, and technology triggering, increase in costs (carbon taxes or future cap & trade implementation plans) and the write-off for new products and/or facilities. 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. This new system has now some uncertainties for industries such as; obligation to reduce the GHG emissions or some fines in case of excess carbon emissions. Ford Otosan is in the scope of MRV. 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. Ford Otosan is aware that this risk could increase the operational 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.When an emerging regulation based climate related potential risk is detected by related department, 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. The climate

		related detailed R&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.
Technology	Relevant, always included	Investments in R&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&D centers, certified by the Ministry of Industry and Technology: Sancaktepe, Eskişehir, and Gölcük. The projects that these centers carry out bring us a competitive edge both in Turkey and abroad. 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 light vehicle technologies. Consideration of the environmental impact and the preference of vehicles with low fuel consumption oriented 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. 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 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 ConnecTruck 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. 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. The potential risk & opportunities related to the products was deducted and assessed with the support of R&O department and discussed in EC and Board level Committee meetings. Monitoring of the risks & opportunities was realized in Board- level, for decision making purpose.
Legal	Relevant, always included	Legal risks for our sector represent big costs for complying with regulation and deviation from our rating performance. 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 & 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. The potential risk & opportunities related to this risk driver was deducted and assessed with the support of R&O department, and discussed in EC and Board level Committee meetings. Monitoring of the risks & opportunities was realized in Board-level, for decision making purpose.
Market	Relevant, always included	Analyses of the impacts of possible global market changes is always in our concern when reviewing our Business Plans with our climate goals. Market risks for our sector represent increased R&D costs due to customer behavior/ societal changes and digitization, increased raw material & energy, water costs and uncertainty in market signals 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. 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 & opportunities related to these products was deducted and assessed with the support of R&O department, and discussed in EC and Board level Committee meetings . Monitoring of the risks & opportunities was realized in Board-level, for decision making purpose.
Reputation	Relevant, always included	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. All environmental performance data is shared transparently using channels such as the annual sustainability report, CDP.

		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.
Acute physical	Relevant, always included	For our sector acute physical risks represent extreme weather events which can result big acute damages to our facilities, operations and products. 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.
Chronic physical	Relevant, always included	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. 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. 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. For example, pregnant or chronically ill people are granted administrative leave on very hot days. The follow-up of this risk driver was realized and reported to EC by senior executives.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

Turkey submitted its Intended Nationally Determined Contribution (INDC) to UNFCCC as part of Paris Agreement and committed to reduce the GHG emissions by 21% from the Business as Usual (BAU) scenario until 2030. 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.

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.

During the workshops $25 t CO2-e was fixed as an optimum carbon price for Turkey.

The average carbon price in the EU-ETS was 25 Euros per tonne in 2019.
This new system has now some uncertainties for industries such as; obligation to reduce the GHG emissions or some fines in case of excess carbon emissions. 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)

1,390,050

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

During the workshops of MoEU ; $25 t CO2-e was fixed as an optimum carbon price for Turkey.
Ford Otosan's MRV covered total Scope1 CO2-e emissions were 55,602 tons in 2020.
The figure have been approved by a third party and reported to the MoEU
For med-term time horizon financial implication is 55,602*25= 1,390,050 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 2020, 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 (MoEU).

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

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. 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. The R&D spending on various product development projects that we have worked on in 2020 amounted to TL 442 million (2019: TL 552 million) before capitalization, and TL 661 million (2019: TL 420 million) 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.

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 2020. 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. Nevertheless, 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 2020. 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

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.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical
Changes in precipitation patterns and extreme variability in weather patterns

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 the local authority could supply water to urban zone rather than industrial zone.
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

1,500,000

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 1,500,000 $ was carried out for wastewater recovery.
This project includes water auditing, consultant and wastewater recovery turnkey project.
A 720 m3 / day recovery facility is planned. The recovery rate is 30%.
There will be 1,130- 1,200 m3 / day wastewater input to the facility and 720 m3 / 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.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Other, please specify

Increased severity of extreme weather events such as hailstorm

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.

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

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

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

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. New market conditions and expectations for mobility, drive us to new fuel-efficient vehicles. 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. Our partner has a portfolio which includes a range of fuel-efficient technologies such as EcoBoost, hybrids, plug-in hybrids, and electric vehicles One of the most important components of our business strategy is to create the most appropriate vehicle model fitting customer expectations, thereby benefiting from opportunities presented by emerging markets. In accordance, we identify expectations and needs regarding target markets, such as local legal regulations, geographical and climate characteristics and road conditions, through the agency of our marketing experts.
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 2020 amounted to TL 442 million (2019: TL 552 million) before capitalization, and TL 661 million (2019: TL 420 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. 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.

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

Investments amounted to USD 1.104 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 $6billion.

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. Top management made a decision that this procedure will periodically be used covering all Ford Otosan Suppliers.
We contribute to the development of our suppliers with five different audits and field visits. In 2020, Manufacturing Site Assessment (MSA) audits were performed on 165 of our vehicle parts suppliers. In addition, we visited 287 suppliers and made 51 Q1 certification visits, primarily to improve shipment performance and support mass production.
• Q1 audits: We carry out our main audits through the Q1 - Number One in Quality certification system.
• Capacity audits: We carry out audits within the scope of Ford Motor Company 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 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. 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.

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 327.936 vehicles in 2020. We achieved a capacity utilization rate of 79% in the Golcuk Plant and 72% overall. Ford Otosan accounted for 25% of Turkey's total vehicle production and 74% 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.
Ford Transit Custom Plug-in Hybrid, a first in its segment, was introduced in the last quarter and received 2020 International Van of the Year (IVOTY) award. Ford Trucks reached an all-time high market share of 31.7% in the domestic market in 2020.
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.We have established Ford Otosan Netherlands BV to support our international expansion efforts for Ford Trucks.
Production and sales of our F-MAX truck started in 2018, continued in 2019 and 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

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

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) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Row 1	Yes, in the next two years	Yes, we intend to include it as a scheduled AGM resolution item	

C3.2

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

Yes, qualitative, but we plan to add quantitative in the next two years

C3.2a

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

Climate-related scenarios and models applied	Details

RCP 4.5 IEA Sustainable development scenario	Ford Otosan is engaging with FMC the parent company's scenario base analysis encouraging to take stronger action on climate change. Common strategy and planning assessment tools, such as the Task Force on Climate-related Financial Disclosures (TCFD) are used. We reviewed publicly available climate scenarios. Because of the outcomes of Ministerial Studies on Turkey's NDC are not accomplished we used physical (Fifth Assessment Report AR5, RCP4.5 representing the IPCC's 2 degrees Celcius scenario) and transitional (IEA SDS) scenarios in qualitative analysis. In the qualitative analysis, the key considerations of assumptions were: Price of key commodities/ products & LCA thinking, R&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&2 absolute emissions reduction target re-evaluated & aligned with the projections. 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. The market forces that are beyond our control, such as energy price fluctuations, changes in consumer demand and regulatory requirements vary every rolling year. 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 GreenDeal, our ambition is to reduce carbon emissions per vehicle by 50-55% by 2030 compared to 2017 and become carbon-neutral by 2050 company-wide. At Ford Otosan, we reduce environmental impacts by contributing to the time and fuel savings of consumers with the smart applications we offer in various fields, especially in fleet management, and offer a safer travel option by minimizing human errors. 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. To do this, we launched the My Ford Trucks mobile application for F-MAX owners. In 2020, the number of connected vehicles is now close to 5,000. We upgraded the interface of the app in 2020 and updated the remote-control feature. We also introduced the website www. ConnecTruckGlobal.com as a new customer

	facing channel to enable F-MAX owners to track their vehicles and manage their fleet more effectively around the world.

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	Description of how our strategy has been influenced: 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 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&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. 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. 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 ConnecTruck 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.
Supply chain and/or value chain	Yes	Description of strategy: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 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&socioeconomic development. Case Study & 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&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. Q1 Audits:We perform main audits over Q1 – Number 1 in Quality certification system. Capacity Audits:We perform audits as part of FMC global

		capacity controls. Production Problems:We organize field visits to resolve problems and challenges faced by the suppliers during the production process. Performance Improvement:We identify suppliers that are open to improvement over FMC's global system and we work on auditing and performance improvement. Risk Management:We plan supplier visits for natural disasters, fires and syndicate related risks and take actions to prevent probable risks.
Investment in R&D	Yes	Description of strategy: One of the factors that determine the competitive power of today's companies is innovation competency. We consider R&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. Case Study & time horizons: We also have R&D works in many other fields such as fuel optimization and reduction of 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&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 "BX 726 Composite Multi-functional Spare Tire Housing" project won the Global Innovation Award in 2018 Ford Global VCSE Innovation Awards. And as a fully domestic project, our "Exhaust Emission Systems' Modelling" work was honored with the "Chief Award" in the branch of Computer Aided Engineering (CAE) by leaving behind over 100 projects from 4 continents. The investment in R&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. 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 2020 amounted to TL 442 million (2019: TL 552 million) before

		capitalization and TL 661 million (2019: TL 420 million) after capitalization.
Operations	Yes	Description of strategy: 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 of working together. We do not limit audits with yearly controls of ISO certificates, but we support the management of these processes with cross checks within the company. 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. The emission intensity is 0.56 ton CO2-e/vehicle in 2019 and 0.34 CO2-e per vehicle in 2020. Case Study & time horizons: Third party assurance will be carried out within the scope of the new version of 14064-1: 2018 next year, and the scope will be redefined and expanded. Therefore, base year evaluation will be made and targets will be calculated according to the new version. 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". We have realized that the operations of the company could be impacted by energy prices. This risk is assessed by the company by taking into account all related activities with energy savings and potential possible optimization issues. Other physical risks are assessed for our facilities and services. The insurance system is in place. This area could have a low impact on the companies' business strategy and planning, in the mid- term.

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 Assets Liabilities	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 greenhouse gas emissions. We continue to develop and expand the entire range of vehicles we offer to our customers, resulting in lower impact. Within this framework, 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 emissions such as natural gas. At the same time, we contribute to our customers' fuel and time savings and emission 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 154% in domestic sales revenues, which amounted to TL 14,825 million in total. Despite the 24% decrease in the number of units, our export revenues increased by 4% on TL basis year on year to reach TL 34,626 million, thanks to the export agreements leveraging the exchange rate effect, positive product mix, and costs. This resulted in an increase of 26% in total sales revenues, which reached TL 49,451 million in 2020.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 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. 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 5,169 GJ of natural gas annually, preventing greenhouse gas emissions of 269.7 tons of CO_2e. 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 CO2e 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 7 tons of CO2e annually. 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. 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 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&D spending on various product development projects that we have worked on in 2020 amounted to TL 442 million (2019: TL 552 million) before capitalization and TL 661 million (2019: TL 420 million) after capitalization.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

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 splings. 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 2020, we obtained nearly 200 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. The objective of the Waste Solvent Recycling System is to recover 85% of the dirty solvents generated while cleaning the paint shop robots and the paint lines. This system allowed us to save 15 tons of solvent and TL 172 thousand in financial terms while also reducing the release of volatile organic compounds (VOC).

C4. Targets and performance

C4.1

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

Both absolute and intensity targets

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) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2015

Covered emissions in base year (metric tons CO2e)

4,406.54

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

2.19

Target year

2021

Targeted reduction from base year (%)

30.08

Covered emissions in target year (metric tons CO2e) [auto-calculated]

3,081.052768

Covered emissions in reporting year (metric tons CO2e)

3,136

% of target achieved [auto-calculated]

95.8545634636

Target status in reporting year

Underway

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

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 95.9%.
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.
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.

Target reference number

Abs 2

Year target was set

2021

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2017

Covered emissions in base year (metric tons CO2e)

201,239

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2035

Targeted reduction from base year (%)

76

Covered emissions in target year (metric tons CO2e) [auto-calculated]

48,297.36

Covered emissions in reporting year (metric tons CO2e)

112,483

% of target achieved [auto-calculated]

58.0325933474

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science-Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

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.

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) (or Scope 3 category)
Scope 1+2 (location-based)

Intensity metric
Metric tons CO2e per vehicle produced

Base year
2009

Intensity figure in base year (metric tons CO2e per unit of activity)
0.72753953

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
87.35

Target year
2021

Targeted reduction from base year (%)
46.88

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
0.3864689983

% change anticipated in absolute Scope 1+2 emissions

8.5

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

0.28

% of target achieved [auto-calculated]

131.2161234852

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 (including target coverage)

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 0.28 CO2e per tonne of vehicle produced. This is due to the R&D studies, emission reduction initiatives and Renewable energy use.

Target reference number

Int 2

Year target was set

2009

Target coverage

Site/facility

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per vehicle produced

Base year

2009

Intensity figure in base year (metric tons CO2e per unit of activity)

9.1681162

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

11.04

Target year

2021

Targeted reduction from base year (%)

51.15

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

4.4786247637

% change anticipated in absolute Scope 1+2 emissions

131.88

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

2.44

% of target achieved [auto-calculated]

143.4721929103

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 (including target coverage)

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 2.44 CO2e per tonne of vehicle produced. This is due to the R&D studies, emission reduction initiatives and Renewable energy use.

Target reference number

Int 3

Year target was set

2021

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3: Use of sold products

Intensity metric

Metric tons CO2e per kilometer

Base year

2019

Intensity figure in base year (metric tons CO2e per unit of activity)

0.00052

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2035

Targeted reduction from base year (%)

50

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

0.00026

% change anticipated in absolute Scope 1+2 emissions

-60

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

0.000522

% of target achieved [auto-calculated]

-0.7692307692

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, but it has not been approved by the Science Based Targets initiative

Target ambition

1.5°C aligned

Please explain (including target coverage)

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 scope 3 use of sold products GHG emissions 50% per vehicle kilometer by 2035 from a 2019 base year. The reporting year emissions of use stage of products is calculated with data gathered from customers and databases and it is 25,690,000.00 tCO2e. The base year emissions for the use of products stage is estimated to be 29,997,283.34 tCO2e. The base year value is estimated and may be recalculated again in the coming years.
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.
The scope includes all HCV, MCV, LCV vehicles produced in 2020. Within HCV, we used only connected data and service records collected from customers, and thus we reached the most precise calculation result. In MCV and LCV vehicles, we used the number of vehicles in 2020 and the coefficients from the DEFRA tool.

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.

Target reference number
Low 1

Year target was set
2019

Target coverage
Company-wide

Target type: absolute or intensity
Absolute

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)
Percentage

Target denominator (intensity targets only)

Base year
2019

Figure or percentage in base year
0

Target year
2030

Figure or percentage in target year
50

Figure or percentage in reporting year
72

% of target achieved [auto-calculated]
144

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 ghg emissions. This target is a part of targets Abs 1&2

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

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 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.

C4.2b

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

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 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
60.6

% of target achieved [auto-calculated]
6

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?
No, it's not part of an overarching initiative

Please explain (including target coverage)
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.

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	2	3,904

To be implemented*	2	3,904
Implementation commenced*	1	662
Implemented*	28	1,614.6
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)

1,614.6

Scope(s)

Scope 1
Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1,400,000

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

1,070,060

Payback period

1-3 years

Estimated lifetime of the initiative

3-5 years

Comment

Through energy efficiency projects, we saved a total of TL 1.4 million in costs while reducing greenhouse gas emissions by 1,614 tons of CO2 e in 2020. In the context of the energy efficiency
efforts in 2020, we carried out 28 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,
• Effective energy management in non-production time periods,

• Pipe insulations,
• Local led conversions,
• Scada calendar adjustments,
• Energy awareness
• Regenerative energy is produced from the motors in the dynamometer and energy savings are achieved with its use.

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 (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 2020. 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.
Dedicated budget for energy efficiency	Energy efficiency and reduction of greenhouse gas emissions works constitute the most important part of our activities for combating climate change. These works both reduce the amount of emission and support our competitive capacity with the cost advantage they provide. 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 4.81 GJ/vehicle in 2020. In 2020, our total environmental investments and expenditures, reached 14.2 million TL. 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 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 5,169 GJ of natural gas annually, preventing greenhouse gas emissions of 269.7 tons of CO_2e. 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 CO2e 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 7 tons of CO2e annually. According to the 2020 results, the Yeniköy Plant became Ford Europe's best factory with a VOC value of 27 gr/m2, reducing 3,5 gr/m2 of volatile organic compounds (VOC) through Waste Solvent and Wax Recycling projects.
Employee engagement	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&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 department, 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 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.
Dedicated budget for low-carbon product R&D	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, 1,413 employees worked in our R&D center where the R&D spending on the various product projects undertaken amounted to 442 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.
Dedicated budget for other emissions reduction activities	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 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.
Dedicated budget for other emissions reduction activities	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.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Product

Description of product/Group of products

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.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know- how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

The Eco Blue engine created the substructure of the engine that is compatible with the new emission limits foreseen to be introduced recently. 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.
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

Level of aggregation

Product

Description of product/Group of products

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 sustainable growth 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. We are well aware that the path toward manufacturing vehicles with low carbon emissions and high energy efficiency goes through the right investments with strong partners. In this context, we take part in projects funded by the EU, in particular the Horizon 2020. With our innovation focus and strong R&D organization, we use state-ofthe-art technologies to reduce greenhouse gas 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 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 ConnecTruck 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.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know- how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

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. The projects that these centers carry out bring us a competitive edge both in Turkey and abroad. Sancaktepe is Turkey's largest automotive R&D center, operating with engine and vehicle development teams, and featuring a design studio, and augmented reality (CAVE)
and hardware-in-the-loop (HIL) software development chambers.

Level of aggregation

Group of products

Description of product/Group of products

Lighter Materials

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&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.

In the Worldwide Harmonized Light Vehicle Test Procedure (WLTP) cycle, we aim to achieve 150 kg less CO2 per 100 km and a 50 kg reduction on the vehicle to save 0.057 liters of fuel.

Within the scope of these efforts, we aim to achieve a reduction of 635 kg for heavy commercial vehicle chassis systems. In this context, by activating 39 kg lightening agent, we have completed the feasibility study of 103 kg lightening activity and started the process for commissioning in 2020. For Aluminum Suspension Bracket TEYDEB (The Scientific and Technological Research Council of Turkey) studies planned to achieve 28 kg reduction per vehicle, we started the prototype production phase. While the useful load rate can be increased with 635 kg of light weight to be provided in heavy commercial vehicles, we also anticipate fuel savings of over 15,000 liters and emission reduction of 60 g CO2/km during the vehicle life.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know-how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

This group of products will allow third party to avoid emissions After mass production the % revenue of these product will be identified as % revenue.
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

Level of aggregation

Group of products

Description of product/Group of products

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 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.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know-how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

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.
This group of products will allow third party to avoid emissions. 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

Level of aggregation

Group of products

Description of product/Group of products

In 2019, we were accepted to the TEYDEB (The Scientific and Technological Research Council of Turkey) incentive program for the Natural Gas/Bio-gas Fuel Generator and Co generation
Unit Development Project that can work in Low Calorific Value Fuels in cooperation with generator and co generation systems manufacturer Teksan. As part of the two-year project that started in November 2019, we aim to develop a complete and poor combustion engine for use in generators and co generation systems with the highest power density in the global market and suitable for low calorific fuels from renewable sources.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know-how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

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

Level of aggregation

Product

Description of product/Group of products

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. We have 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. At the same time, auxiliary acceleration and other speed limiting functions support keeping the fuel economy at the optimum point.
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.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know-how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

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

Level of aggregation

Group of products

Description of product/Group of products

We reduce our environmental impact by boosting circular economy through our R&D activities. We launched the ReCube Project to calculate the carbon footprint of our products and to design them with lower impact on the environment. As part of the project, we calculate the emissions of the products in the raw material, production, use, and recycling processes, and conduct hot zone and environmental impact analyses. Based on the analysis result, we improve overall performance by addressing the

process where it is at its highest environmental impact. 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 lifecycle analysis according to the ISO 14040 standard. Following the “Fan Shroud Production with Recycled Material” in 2019, we produced a battery box from recycled plastic in 2020. Building on the experience we gained with these two products, which delivered both environmental and economic benefits, 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.
As we strive to reduce our product carbon footprint we also started to produce battery boxes from recycled plastics for use in light commercial vehicles in 2020, in line with our mission of making products at accessible prices. With this project, we reduced our carbon footprint by 1 kg by using 50% recycled plastic per product. According to lifecycle analyses (LCA), the carbon footprint specific to the 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 recycled plastics sourced within the country for production instead of buying plastic composites from abroad helped us reduce our dependence on foreign raw materials. With this project, we produced battery boxes with less environmental impact at 7% lower costs.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Internal know-how and calculations

% revenue from low carbon product(s) in the reporting year

Comment

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

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

Base year end

Base year emissions (metric tons CO2e)

Comment

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

C5.2

(C5.2) 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)

80,098

Comment

This data cover the scope 1 GHG emissions of Kocaeli (Gölcük+ Yeniköy), Eskişehir (old name is İnönü) and Sancaktepe locations

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

C6.3

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

Reporting year

Scope 2, location-based

32,386

Scope 2, market-based (if applicable)

0

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.
Thus, our market based scope 2 emissions calculated to be 0.

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

Metric tonnes CO2e

367,100.113

Emissions calculation methodology

Emissions for purchased goods and services are calculated using Simapro LCA software using secondary data from Ecoinvent v3.6. Purchase amount of goods are multiplied by cradle to gate emissions from Ecoinvent database.

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

0

Please explain

Purchased good and services are material for Ford Otosan. In 2020 reporting year, Scope 3 emissions are calculated according to GHG Protocol. The figure represents the cradle to gate emissions of aluminium, steel, batteries, solvent consumption, and vehicle tyres. It is already higher than Scope 1 and 2 emissions, this Ford Otosan aims to calculate all emissions from purchased goods and services and to establish targets and metrics for select suppliers starting in early 2022.

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

It is not relevant in the short-term.
We have conducted an overall life cycle assessment for our operations as part of ISO 14001:2015 Standard and we predict that the full inclusion to this category will be in the

mid-term time horizon. Capital good emission factors will be determined in this time interval.

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

Evaluation status

Relevant, calculated

Metric tonnes CO2e

17,775.869

Emissions calculation methodology

Fuel consumption data and electricity consumption data that is used in the Scope 1 and Scope 2 is used to calculate this category. Emission factors are obtained from DEFRA, 2020 emissions factors database. Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

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, diesel oil and gasoline;
*Transmission & distribution losses arising from purchased electricity .
*Upstream emissions of purchased electricity

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

70,942.268

Emissions calculation methodology

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, 2020 emissions factors database. Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

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

85

Please explain

This data was provided from our transportation suppliers that carry out transportation activities of purchased material to Ford Otosan and product transportation from Ford Otosan via road transport which has an 85 % dispersion over total upstream transportation and distribution activities.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2,120.794

Emissions calculation methodology

Solid waste amounts per waste type have been collected from waste management data sheets which are also submitted to the ministery. Wastewater amounts have been collected from waste water meters, for Kocaeli and Eskişehir facilities.
Emission factors are obtained from DEFRA, 2020 emissions factors database.
Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

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.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

524.365

Emissions calculation methodology

Flight distance data was multiplied withe the air travel emissions factors. Emission factors are obtained from DEFRA, 2020 emissions factors database. Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

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.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

7,292.152

Emissions calculation methodology

Employee commuting data was multiplied withe the air travel emissions factors. Emission factors are obtained from DEFRA, 2020 Business Travel Land, average local bus option. emissions factors database. Calculation methodology is based on the GHG Protocol Corporate Value Chain -Scope 3 Standard.

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.

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

Not relevant, explanation provided

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. Retail network transportation activities in turkey and international retails network transportation emissions will be included in this category within next 2 years.

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

Metric tonnes CO2e

25,690,000

Emissions calculation methodology

CO2 emissions per km and annual mileage information are calculated for all F-MAX HCV vehicles using ConnecTruck real-world data during 1 year(2020) 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.
CO2 emissions of HCV, LCV vehicles are calculated using approximate factors from DEFRA 2020 database.

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

24

Please explain

It is assumed that, apart form the F-MAX HCV vehicles, the life time is 15,000 km for 10 years use of sold product. The total CO2 emissions of the reporting year covering gasoline and diesel vehicles were calculated. The DEFRA 2020 methodology was used in the calculations.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

102,646.159

Emissions calculation methodology

2020 total vehicle production amount are multiplied by the emission factor of end-of-life treatment. The end-of-life CO2 e emissions factor is calculated in Simapro v9.1, with Ecoinvent v3.6 database.

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

0

Please explain

The emissions factor dataset is given in Ecoinvent v3.6, as a used vehicle disposal scenario data.

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

Not relevant, explanation provided

Please explain

According to our estimates the scope 3 emissions from “Investments” are significantly below 1% of the total Ford Otosan's Group scope 3 emissions. Due to the low amount of emissions in relation to our scope 3 emissions the scope 3 category “Investments” is not of substantial relevance.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

No other upstream emissions apart from above categories.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

No other downstream emissions apart from above categories.

C6.7

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

No

C6.10

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

Intensity figure

0.0000161

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

112,483

Metric denominator

unit total revenue

Metric denominator: Unit total

7,000,000,000

Scope 2 figure used

Location-based

% change from previous year

45

Direction of change

Decreased

Reason for change

With the increase of Unit Total Revenue in 2020 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 45% in the reporting year.

Intensity figure

0.343

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

112,483

Metric denominator

vehicle produced

Metric denominator: Unit total

327,936

Scope 2 figure used

Location-based

% change from previous year

37.25

Direction of change

Decreased

Reason for change

In 2019, the intensity figure was 0.5466 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. Although, due to the pandemic, the amount of vehicles produced has decreased slightly. In total, a 37% of decrease occurred in CO2e emissions per vehicle produced.

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	79,801.57	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	1.97	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	0.91	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	80,098

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)	65,678	40.717352	29.851182
Eskişehir (old name Inönü) Plant	13,799	39.842081	30.121566
Sancaktepe	621	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	57,227.93
Mobile Combustion	14,797.02
Stationary Refrigerants	1,002.87

Mobile Air Conditioning	7,008.92
Welding Process & Fire Ext.	8.13
Process Oils	52.75

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

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

	Gross Scope 1 emissions, metric tons CO2e	Comment
Transport OEM activities	80,098	

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Turkey	32,386	0	250,362.96	180,881

C7.6

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

By facility

C7.6b

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

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Kocaeli Plant (Gölcük+Yeniköy)	24,570	0
Eskişehir (Old name İnönü) Plant	5,301	0
Sancaktepe	2,514	0

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

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

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Transport OEM activities	32,386	0	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. Thus, our market based scope 2 emissions calculated to be 0.

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

0.0002

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

19,290,000

Metric denominator

t.km

Metric denominator: Unit total

86,431,050,000

% change from previous year

-12

Vehicle unit sales in reporting year

320,115

Vehicle lifetime in years

10

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

27,000

Load factor

1

Please explain the changes, and relevant standards/methodologies used

A product lifetime of 10 years and approximately 27,000 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.

Activity

Heavy Duty Vehicles (HDV)

Emissions intensity figure

590.5

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

6,400,000

Metric denominator

t.km

Metric denominator: Unit total

3,779,517,802.5

% change from previous year

54

Vehicle unit sales in reporting year

7,821

Vehicle lifetime in years

10

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

48,325.25

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 infomation 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.

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	84,309	Decreased	42	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. The total scope 1 and scope 2 emissions of the previous year was 201,719.3 tons of CO2-e. We arrived at 42% through

				(84,309/201,719.3) *100
Other emissions reduction activities	1,614.6	Decreased	0.8	Through energy efficiency projects, we reduced greenhouse gas emissions by 1,614 tons of CO2 e in 2020. In the context of the energy efficiency efforts in 2020, we carried out 28 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, • Effective energy management in non-production time periods, • Pipe insulations, • Local led conversions, • Scada calendar adjustments, • Energy awareness • Regenerative energy is produced from the motors in the dynamometer and energy savings are achieved with its use. The total scope 1 and scope 2 emissions of the previous year was 201,719.3 tons of CO2-e. We arrived at 0.8% through (1614.6/201,719.3) *100
Divestment				
Acquisitions				
Mergers				
Change in output	1,737.6	Decreased	0.9	Our production volume (produced vehicles) decreased by 11% in 2020 due to pandemic. As a result of this change 1,737.6 tons of CO2-e decrease occurred. The total scope 1 and scope 2 emissions of the previous year was 201,719.3 tons of CO2-e. We arrived at 0.9% through (1,737.6/201,719.3) *100
Change in methodology				
Change in boundary				

Change in physical operating conditions				
Unidentified				
Other				

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)	LHV (lower heating value)	0	368,662.51	368,662.51
Consumption of purchased or acquired electricity		180,881	69,481.96	250,362.96
Total energy consumption		180,881	438,144.47	619,025.47

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

303,664.78

Emission factor

0.00195

Unit

metric tons CO2e per metric ton

Emissions factor source

The emissions factors for CO2, CH4 and N2O are taken from 2006 IPCC Guidelines for National GHG Inventories- Volume2 ,Chapter 2 Stationary Combustion (Table 2.3) and 2006 IPCC Guidelines for National GHG Inventories- Volume2 ,Chapter 2 Stationary Combustion (Table 2.4).
After calculations, the kg CO2e emission factor is calculated with final kgCO2e/activity data.

Comment

The natural gas is consumed for heating purpose in the locations of Ford Otosan. The verification of these emission factors is fulfilled by the 3 rd party audit for 2020 activities

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

5,380.5

Emission factor

0.00265

Unit

metric tons CO2e per liter

Emissions factor source

The emissions factors for CO2, CH4 and N2O are taken from 2006 IPCC Guidelines for National GHG Inventories- Volume2 ,Chapter 2 Stationary Combustion (Table 2.3). After calculations, the kgCO2e emission factor is calculated with final kgCO2e/activity data.

Comment

This value represents the amount of diesel consumed in stationary combustion in reporting year. The verification of the fuel consumed by the organization is fulfilled by the 3 rd party audit for 2020 activities.

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

56,891.27

Emission factor

0.00269

Unit

metric tons CO2e per liter

Emissions factor source

The emissions factors for CO2, CH4 and N2O are taken from 2006 IPCC Guidelines for National GHG Inventories- Volume2 ,Chapter 3 Mobile Combustion (Table 3.2.1). After calculations, the kgCO2e emission factor is calculated with final kgCO2e/activity data.

Comment

This value represents the amount of diesel consumed in mobile combustion in reporting year. The verification of the fuel consumed by the organization is fulfilled by the 3 rd party audit for 2020 activities.

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1.39

Emission factor

2.99

Unit

metric tons CO2e per metric ton

Emissions factor source

The emissions factors for CO2, CH4 and N2O are taken from 2006 IPCC Guidelines for National GHG Inventories- Volume2 ,Chapter 2 Stationary Combustion (Table 2.3) . After calculations, the kgCO2e emission factor is calculated with final kgCO2e/activity data.

Comment

This value represents the amount of LPG consumed in stationary combustion in reporting year. The verification of the fuel consumed by the organization is fulfilled by the 3 rd party audit for 2020 activities.

Fuels (excluding feedstocks)

Propane Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

163.81

Emission factor

2.99

Unit

metric tons CO2e per metric ton

Emissions factor source

There is no data for propane in the IPCC, the net calorific value and emission factor of propane is taken as the same with LPG. The emissions factors for CO2, CH4 and N2O are taken from 2006 IPCC Guidelines for National GHG Inventories- Volume2,Chapter 2 Stationary Combustion (Table 2.3) . After calculations, the kgCO2e emission factor is calculated with final kgCO2e/activity data.

Comment

This value represents the amount of propane gas consumed in stationary combustion in reporting year. The verification of the fuel consumed by the organization is fulfilled by the 3 rd party audit for 2020 activities.

Fuels (excluding feedstocks)

Other, please specify

Methanol

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

417.59

Emission factor

1.92

Unit

metric tons CO2e per metric ton

Emissions factor source

There is no data for methanol in the IPCC, the net calorific value and emission factor of methanol is taken as the same with bio-gasoline. The emissions factors for CO2, CH4 and N2O are taken from 2006 IPCC Guidelines for National GHG Inventories-Volume2,Chapter 2 Stationary Combustion (Table 2.3) . After calculations, the kgCO2e emission factor is calculated with final kgCO2e/activity data.

Comment

Methanol is consumed for heat treatment, as stationary combustion activities The verification of the total fuel consumed by the organization is fulfilled by the 3 rd. party audit for 2020 activities

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2,143.17

Emission factor

0.00235

Unit

metric tons CO2e per liter

Emissions factor source

The emissions factors for CO2, CH4 and N2O are taken from IPCC Volume 2 Chapter 3 Mobile Combustion (table 3.2.1 and 3.2.2). After calculations, the kgCO2e emission factor is calculated with final kgCO2e/activity data.

Comment

This value represents the amount of motor gasoline consumed in mobile combustion in reporting year. The verification of the fuel consumed by the organization is fulfilled by the 3 rd party audit for 2020 activities.

C8.2e

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

Sourcing method

Unbundled energy attribute certificates, International REC Standard (I-RECs)

Low-carbon technology type

Hydropower

Country/area of consumption of low-carbon electricity, heat, steam or cooling

Turkey

MWh consumed accounted for at a zero emission factor

180,881

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 Campuses procure all their electrical energy from 100% renewable sources.

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

204,452.48

Metric denominator: Unit total

320,115

% change from previous year

5

Please explain

For the reporting year, the figure for Kocaeli Plant (Gölcük + Yeniköy) is 0.64 MWh/vehicle
Previous year's realization was 0.61 MWh /vehicle.

The metric numerator is the energy consumption of the facilities.
Even the energy used in total is 8% less than the previous year, the number of vehicles produced is also reduced due to the pandemic. This lead to an increase of 5% in energy used per vehicle.

Activity

Heavy Duty Vehicles (HDV)

Metric figure

5.18

Metric numerator

MWh

Metric denominator

Production: Vehicle

Metric numerator: Unit total

40,516

Metric denominator: Unit total

7,821

% change from previous year

-32

Please explain

For the reporting year 2020, the figure for Eskişehir plant is 5.18 MWh/vehicle;
Previous year's realization was 7.61 MWh /vehicle.
The metric numerator is the energy consumption of the facility.
The reason of this decrease is:
The number of vehicles produced has increased about 54% although the energy used in total remained about the same. This caused a 32% decrease in the metric figure in the reporting year.

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

85,631,810

Metric numerator

All units are entered as kg.

Metric denominator (intensity metric only)

N/A

% change from previous year

12

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 2020, we obtained nearly 200 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
2,368

Metric unit
Units

Explanation
In the reporting year 2,368 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.

Activity
Light Duty Vehicles (LDV)

Metric
Production

Technology
Other, please specify

MHEV

Metric figure

13,521

Metric unit

Units

Explanation

In the reporting year 13,521 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 1,413 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. In 2019, we were rated as the 'Private Company with the Highest R&D Expenditure' in 'R&D 250, Companies with the Highest Rate of R&D Expenditures in Turkey' survey. 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 optimization, reduction of CO 2 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&D funds to increase these investments. Using the know-how of R&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&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&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.

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 conductedout at the Ford Otosan R&D center, was tested byEuro 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

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.

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)

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 CO2/day emission reduction for one vehicle in two shifts operation and 165 ton CO2/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	No third-party verification or assurance

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

FORD 2020 GHG Verification Statement.pdf

Page/ section reference

"The calculated Scope 1 and Scope 2 GHG emissions for the 2020 are 112.483,15 tons of CO2e . " -page 1,
"112.483,15 tCO2e of which 80.097,61 tCO2e are direct emissions (Scope 1) and 32.385,54 tCO2e are energy indirect emissions (Scope 2) are reasonable. "
"The greenhouse gas emission data (Scope 1 and 2) for 2020 disclosed in the CDP Report as a result of verification audit held on the basis of international standards has been verified with reasonable assurance. "-page 2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

FORD 2020 GHG Verification Statement.pdf

Page/ section reference

"The calculated Scope 1 and Scope 2 GHG emissions for the 2020 are 112.483,15 tons of CO2e . " -page 1,
"112.483,15 tCO2e of which 80.097,61 tCO2e are direct emissions (Scope 1) and 32.385,54 tCO2e are energy indirect emissions (Scope 2) are reasonable. "
"The greenhouse gas emission data (Scope 1 and 2) for 2020 disclosed in the CDP Report as a result of verification audit held on the basis of international standards has been verified with reasonable assurance. "-page 2

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

No, we are waiting for more mature verification standards and/or processes

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?

Mitigating climate change by utilization of carbon pricing can be helpful for countries in confirming their mitigation commitments.
Since its establishment in 2005, the European Emissions Trading System (EU-ETS) incorporates lessons learned from earlier trading periods and brings the system in line with the

EU's 2030 climate targets. With the recently agreed reform package, negotiators have struck a balance between strengthening the price signal, protecting industry from carbon leakage, and securing solidarity mechanisms for poorer member states. Most changes will be implemented in the fourth trading period that will last from 2021 until 2030. Whilst Turkey does not yet have carbon pricing system in place, it has started to explore opportunities to implement a National Emissions Trading Scheme. The Partnership for Market Readiness Project (PMR) Turkey, "Modelling of Financial, Economic and Sector Impacts of Carbon Pricing in Turkey" component, which was implemented as of March 2017 has been completed. In this frame, results of modelling studies were evaluated with public and private sector representatives in March 15, 2018. The PMR funding is at the second phase. 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 anticipate that Ministry will include in two years, probably at the second half of 2021 the sectors which are in the scope of MRV Regulation first. 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.
As part of our involvement in this new approaching system, we upgraded our Energy Management Systems ISO 50001. In 2020 the GHG Inventory Systems; ISO 14064-1 will be upgraded. Ford Otosan is invited to attend the workshops by the MoEU (Ministry of Environment & Urbanization). 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 4.81 GJ per vehicle in the reporting year (5.42 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.
For the purpose to drive opportunities in the new system, Ford Otosan is a project partner to many European Union-funded research projects, particularly the Horizon 2020 program funding. 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 $25t CO2-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 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.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers
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

64

% total procurement spend (direct and indirect)

92

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

60.6

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 65% 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. With the COVID-19 pandemic, sustainability across the supply chain, particularly ensuring the traceability of the supplier network, operational competence, and crisis management gained prominence as a key factor. We took various measures and actions to manage the impact of COVID-19 on the supply chain. One of them is conducting weekly online COVID-19 surveys to assess the risk situation of the suppliers and identified the current position and the number of cases at our suppliers. We analyzed the inventory levels, delivery performance, disruptions in continuity, and capacity information of individual suppliers to categorize risks and take necessary actions.

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. 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.
Q1 audits: We carry out our main audits through the Q1 - Number One in Quality certification system.
Capacity audits: We carry out audits within the scope of Ford Motor Company 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 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. 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 14001:2015 version 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

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

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

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 then 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. 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/aftersales 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 international management standard ISO 10002 Customer Satisfaction Management System. As of 2020, the number of customers registered in our customer relationship management (CRM) 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, 2020.

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 2020, the total training time of our employees increased by 42% to reach 19,431 person*hours. The total training time of the subcontracted employees increased fivefold year on year and reached 4,097 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 2019 and spring 2020 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 2017, we came together with first grade students in 23 primary schools to date.

We group our activities in five main categories to cover our entire value chain including dealers, customers, suppliers, employees, product design and production. Our company holds domestic goods certificate for our products. Today, many product groups used in vehicles are supplied from domestic sources. We are constantly developing new ideas and projects to increase our localisation.

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: (2017)10.6 BTL (2018) 14.23 BTL (2019) 19.9 BTL (2020) 19.6 BLT

Our company can meet changing customer expectations, protect workers, and effectively adapt to changing technology with the help of innovation. The workforce and adaptation to changing technology are two other important value chain drivers which are prioritized by the strategy. 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 addition, a digital platform used to monitor the innovation process was launched in 2016. Digital Transformation, Smart Production, Customer Experience, Connectivity/Telematic Interactive Vehicles, and Autonomous Truck are selected as the main areas of innovation by the Ford Otosan Innovation Committee. Digital Transformation is used to create efficiency and value through intelligent and sustainable use of digital tools and methods. It acts as one of the main enablers for other areas of innovation. Digitizing our manufacturing around Industry 4.0 will enable connected manufacturing with manufacturing Information System: Collecting all our IoT and Machine data into a BIG Data Platform.
Predictive Quality: Predicting our quality issues using machine learning. Hence continuously increasing our quality. Advanced Production Planning: Dynamically planning our production to adapt instant changes to improve total efficiency.
Predictive Maintenance: Acting before a machine gets broken. The employees are the source of our strength. It is our goal to boost the skills and contentment of our employees by providing them with opportunities to self-improve. It is our principle to accomplish “teamwork” that will ensure their participation in all areas.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	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 Ministry (MoEU) requested from industry to provide them comments on the responsibilities of stakeholders in carbon reporting and verification process. Ford Otosan shared its views and sector base technical comments on Turkish MRV Regulation about tier calculations and grid emission factor specification. Depending on our legal liability, the Greenhouse Gas

		the issuance of mandatory carbon reporting regulation by actively cooperating with Koç Group Environmental Board. 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”	Monitoring Plan was uploaded to the online system of the Ministry of Environment and Urbanization.
Carbon tax	Support	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”	Ford Otosan actively cooperated with Koç Group Environmental Board on the execution of sector comments and on the development phase of the report. The report was published by TUSIAD before COP 22. This report points out different economical tools/alternatives on mitigation activities Such as: *Carbon tax enforcement *Internal cap and trade system execution *Sector base hybrid system implementation. Our sector base comments have been reported to EPDK
Other, please specify Vehicle Taxes	Support with minor exceptions	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.	OSD meetings realizes in monthly periods We proposed to revise climate change action plan and to investigate “best and worst cases” on this issue
Other, please specify Green Deal	Support	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).	Carbon emissions from vehicles are one of the important impact areas of the industry. 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 2017 and to specify our actions within the vision of becoming carbon-neutral by 2050. Annex: Ford OTOSAN Climate Action Plan -2020

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

OSD (Automotive Manufacturers Association)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Automotive Manufacturers Association (OSD), established in 1974, represents the automotive manufacturers operating in Turkey at domestic and international levels. OSD is an active member of the Association of International Automobile Manufacturers (OICA). The mission of OSD is to: Contribute to the development of a sustainable and internationally competitive automotive industry in Turkey. Collect, analyse and circulate information on the automotive industry among its members and the public at large. Study issues of mutual interest to its members and develop industry position on these matters. Promote industry policies in the domestic and international arena with the concerned parties and the public in general.

How have you influenced, or are you attempting to influence their position?

Ford Otosan is represented on the Board of Directors of OSD. We continue to actively engage and encourage debate on a wide range of issues within this group.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

As Ford Otosan we belong to a wide variety of partnerships, coalitions, industry groups and trade associations that comply with legislation and regulations. Participation of Ford Otosan in industry associations is multi functional. In this way, it brings with it a consistent domestic and foreign policy and messaging compatible with our overall climate change strategy.
The basis of our understanding of environmental management is constituted by principles stated in Ford Otosan's Environmental and Energy Policy. This policy, compatible with Koç Holding Environment Policy, company targets, conditions of Ford Motor Company Environmental Policy Letter No.17 and international standards, is binding for all our operations. On the other hand, we expect our suppliers, contractors and other related business partners to display behaviors compatible with Ford Otosan Environmental and Energy Policy (Annex). Our environmental and energy management systematic was designed according to the requirements of ISO 14001 Environmental Management System Standard, ISO 14064 Greenhouse Gases Quantification and Verification System Standard and ISO 50001 Energy Management System Standard. The constituted management systematic was outlined in Ford Otosan Environmental and Energy Management Handbook and Greenhouse Gas Management Handbook and offered to the information of employees.
We also make use of Ford Global Environmental Operation System (EOS) besides ISO 14001 Environmental Management System. Through this system, the principles that we need to follow, the works we need to implement, legal necessities we need to abide and standard guidelines in the performance areas formed in accordance with our strategic plans are evaluated and transformed into business targets of varying periods, ranging from monthly plans to the 5-year strategic plan. These business targets are disseminated throughout individual performance targets within a hierarchy reaching from the executive management to all relevant employees, they are also accepted as part of the remuneration system. 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 by means of independent external audits. 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.
We have strategies in relation to environment and energy within the context of a sustainable management system. While a new project is still in the design stage, the New Project Environment and Energy Compliance Form is evaluated by the project supervisor, environmental engineer and energy manager. According to the evaluation results, it is decided whether to materialize the project or not.

In this way, all direct and indirect activities and other engagement opportunities are planned in collaboration between Ford Otosan's OHSE and Corporate Communications divisions and conducted with the approval of the highest board level executive committee within the company, it is ensured that environment and energy friendly projects are constituted and directed.
Our strategies for combating climate change were drawn by "Ford Otosan Climate Change Action Plan" and it is harmonized with Green Deal road map.

C12.4

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

Publication

In voluntary sustainability report

Status

Complete

Attach the document

sustainabilityreport2020.pdf

Page/Section reference

2020 Ford OTOSAN Sustainability Report
Energy Efficiency and Emissions- p: 6,8,17,21,25,26,27,28,29,31,33,34,40,41,42,63,70
Low-emission Solutions-p: 8,20,21,40
Lighter Materials p: 27
Transportation technologies of the future p: 6,21,26,33,34
Management Approach p: 3,10,23,34,35,39,40,43,62,63,70
Environmental Responsibility p: 2,16,21,39-44,63-65
Performance Tables p: 63-65

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.

Publication

In mainstream reports, in line with the CDSB framework (as amended to incorporate the TCFD recommendations)

Status

Complete

Attach the document

ford20_faaliyet_eng.pdf

Page/Section reference

2020 Ford OTOSAN Annual Report
Chairman's Message p: 18
Plants and Facilities p: 61-75
R&D p: 78-84
Sustainability Principles p: 5,6,98,134,140
Risk Management & Internal Control p: 22,23,32,81,102,140,

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. 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

CRDF-RISK-G_3_Golcuk_Fabrikasi_Risk_Identification_Form.xlsx

Ford OTOSAN Environmental & Energy Policy EN.pdf

Ford Otosan Climate Change Action Plan- 2020 EN.pdf

C15.1

(C15.1) 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 am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms