

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year

0,4

Type(s) of substantial contribution

Calculation methodology and supporting information

- Of our Group-wide business activities, our Systems Solutions operating segment (T-Systems) is eligible under activity 8.1 Data processing, hosting and related activities.
When evaluating the Taxonomy eligibility of activities, we primarily take T-Systems' global business into account. As well as data centers operated by T-Systems, we also included data centers operated on co-locations in the evaluation. In addition, some data centers at our national company in Greece were found Taxonomy-eligible.
- Turnover, capital expenditure and operating expenditure are directly assigned at the level of product groups to the operation of data centers in accordance with economic activity 8.1. To avoid double counting under the EU Taxonomy, T-Systems' Taxonomy-eligible cloud solutions are only attributed to economic activity 8.2; they are not disclosed under economic activity 8.1.
- The definition of turnover according to the EU Taxonomy is equivalent to net revenue in our consolidated income statement contained in the consolidated financial statements.
- The relevant capital expenditure was determined on the basis of the consolidated statement of financial position contained in the consolidated financial statements and is determined as the sum of additions and changes within the consolidated group under property, plant and equipment, intangible assets (excluding goodwill), and right-of-use assets.
- Relevant operating expenditure was calculated according to the EU Taxonomy that defines operating expenditure as costs that relate to research and development; building remediation measures; short-term leases; maintenance, and repair; and any other direct expenditures relating to the day-to-day maintenance of property, plant and equipment as relevant operating expenditure.

Technical screening criteria met

No

Details of technical screening criteria analysis

- The technical screening analysis for climate change mitigation was performed for each individual data center.
- In the first step, we checked compliance with the EU Code of Conduct on Data Centre Energy Efficiency. Five of the eight sites operated

directly by T-Systems comply with this Code of Conduct. As we have not yet verified compliance with the Code of Conduct through external audits in accordance with EU Taxonomy requirements, we are not classifying the data centers used for economic activity 8.1 as Taxonomy-aligned in the reporting year.

- In the second step we checked if the refrigerants used in the cooling systems of the data centers that, in principle, fulfill the Code of Conduct, comply with the GWP limit value of 675 defined by the EU Taxonomy. The check was carried out based on product datasheets of the refrigerants used. The criterion is currently met by one data center that was fully refurbished in 2022. The other sites currently still use industry-typical refrigerants that meet the criteria of the EU directive on fluorinated greenhouse gases. We will make the change to Taxonomy-aligned refrigerants as part of the regular refurbishment program for our data centers.

Do no significant harm requirements met

Yes

Details of do no significant harm analysis

- Do no significant harm analysis for climate change adaptation: As we manage climate risks centrally at Group level, determining whether an activity causes no significant harm to the environmental objective “Climate change adaptation” took place at a higher level for all Taxonomy-eligible activities. As part of our security and risk management, we regularly examine our critical infrastructure to check for physical climate risks and take climate adaptation measures to minimize potential risks. The climate risk analysis is carried out using a recognized software platform (MunichRe Location Risk Intelligence) based on the climate scenarios defined by the Intergovernmental Panel on Climate Change (IPCC). No material climate risks as defined in the Taxonomy requirements were identified in connection with Taxonomy-eligible data centers of T-Systems. In contrast, in our national company Greece the management of climate risks is still under development and does not yet fully conform with the EU Taxonomy requirements. Thus, the Taxonomy-eligible data centers that are allocable to our national company in Greece are not aligned with the do no significant harm criteria for climate change adaptation.
- Do no significant harm analysis for sustainable use and protection of water and marine resources and transition to a circular economy: As the data centers do not meet the technical screening criteria for climate change mitigation, we did not perform the do no significant harm analysis for the remaining environmental objectives. We will carry out a detailed review of the individual data centers’ compliance with the criteria for preventing significant harm to the remaining environmental objectives in each case as soon as they fulfill the aforementioned technical screening criteria for climate change mitigation requirements in full.

Minimum safeguards compliance requirements met

Yes

Details of minimum safeguards compliance analysis

- Compliance with the minimum social safeguards, i. e. the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the ILO Core Conventions and the International Bill of Human Right, is ensured by a management system at Group level. We verified that the management system required by the minimum social safeguards fully covers our business activities that fall under activity 8.1 Data processing, hosting and related activities.
- We perform human rights due diligence using a risk-based management system encompassing both the Group and our supply chain that we use to monitor compliance with social and environmental standards. The core elements are regular risk analyses in our own business area and at our suppliers'; a policy statement on human rights; awareness-raising among employees, suppliers, and business partners; a mechanism for lodging complaints; and reporting. We also maintain a process of trust-based dialog with employees' representatives and trade unions.
- To prevent corruption and to safeguard fair competition, Deutsche Telekom has a compliance management system which is aligned with the Company's risk situation. The core elements are our Guiding Principles, Code of Conduct and Supplier Code of Conduct; the Compliance Risk Assessment; compliance and anti-corruption trainings; our TellMe whistleblower portal.

Economic activity

Infrastructure enabling low-carbon road transport and public transport

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Taxonomy Alignment

Taxonomy-eligible but not aligned

Financial metric(s)

Turnover
CAPEX
OPEX

Taxonomy-aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned turnover from this activity as % of total turnover in the reporting year

Taxonomy-aligned turnover from this activity that substantially contributed to climate change mitigation as a % of total turnover in the reporting year

Taxonomy-aligned turnover from this activity that substantially contributed to climate change adaptation as a % of total turnover in the reporting year

Taxonomy-eligible but not aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

10.000.000

Taxonomy-eligible but not aligned turnover from this activity as % of total turnover in the reporting year

0

Taxonomy-aligned CAPEX from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year

Taxonomy-eligible but not aligned CAPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

5.000.000

Taxonomy-eligible but not aligned CAPEX associated with this activity as % of total CAPEX in the reporting year

0

Taxonomy-aligned OPEX from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year

Taxonomy-eligible but not aligned OPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

0

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year

0

Type(s) of substantial contribution

Calculation methodology and supporting information

- The economic activity Infrastructure enabling low-carbon road transport and public transport (6.15) covers the provision of charging infrastructure for electric vehicles through our subsidiary Comfort Charge. Comfort Charge's charging solutions encompass the installation, operation, and maintenance of charging infrastructure for electric vehicles. In addition to e-charging infrastructure operated on publicly accessible Deutsche Telekom sites, this also includes services related to the planning, construction, and maintenance of e-charging facilities at our customers' premises.
- Turnover, capital expenditure and operating expenditure are directly assigned to the installation and operation of charging solutions.
- The definition of turnover according to the EU Taxonomy is equivalent to net revenue in our consolidated income statement contained in the consolidated financial statements.
- The relevant capital expenditure was determined on the basis of the consolidated statement of financial position contained in the consolidated financial statements and is determined as the sum of additions and changes within the consolidated group under property, plant and equipment, intangible assets (excluding goodwill), and right-of-use assets.
- Relevant operating expenditure was calculated according to the EU Taxonomy that defines operating expenditure as costs that relate to research and development; building remediation measures; short-term leases; maintenance, and repair; and any other direct expenditures relating to the day-to-day maintenance of property, plant and equipment as relevant operating expenditure.

Technical screening criteria met

Yes

Details of technical screening criteria analysis

- Comfort Charge's charging solutions for e-vehicles are dedicated to the operation of vehicles with zero tailpipe CO2 emissions. Thus, they fulfill the technical screening criteria for climate change mitigation by definition. The provision of infrastructure for the transport or storage of fossil fuels is technically excluded at charging stations for e-vehicles.

Do no significant harm requirements met

No

Details of do no significant harm analysis

- Do no significant harm analysis for climate change adaptation: As we manage climate risks centrally at Group level, determining whether an activity causes no significant harm to the environmental objective "Climate change adaptation" took place at a higher level for all taxonomy-eligible activities. As part of our security and risk management, we regularly examine our critical infrastructure to check for physical climate risks

and take climate adaptation measures to minimize potential risks. The climate risk analysis is carried out using a recognized software platform (Munich Re Location Risk Intelligence) based on the climate scenarios defined by the Intergovernmental Panel on Climate Change (IPCC). According to our corporate risk classification, charging stations are not part of the critical infrastructure and thus not linked to material climate risks as defined in the Taxonomy requirements.

- Do no significant harm analysis for the sustainable use and protection of water and marine resources and the protection and restoration of biodiversity and ecosystems: Significant harm to the environmental objectives of sustainable use and protection of water and marine Resources and protection and restoration of biodiversity and ecosystems can be ruled out since the charging stations are built on existing parking lots and no environmental impact assessment is required under EU law, accordingly.
- Do no significant harm analysis for the transition to a circular economy and pollution prevention and control: The do no significant harm criteria in respect of the circular economy and pollution prevention and control largely constitute elements of current EU legislation. As we build and maintain charging infrastructure in collaboration with service providers for whose activities no evidence has yet been provided of compliance with the criteria for a circular economy, we are reporting the Comfort Charge business for the reporting year as non-Taxonomy-aligned.

Minimum safeguards compliance requirements met

Yes

Details of minimum safeguards compliance analysis

- Compliance with the minimum social safeguards, i.e. the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the ILO Core Conventions and the International Bill of Human Right, is ensured by a management system at Group level. The management system required by the minimum social safeguards also covers our subsidiary Comfort Charge.
- We perform human rights due diligence using a risk-based management system encompassing both the Group and our supply chain that we use to monitor compliance with social and environmental standards. The core elements are regular risk analyses in our own business area and at our suppliers'; a policy statement on human rights; awareness-raising among employees, suppliers, and business partners; a mechanism for lodging complaints; and reporting. We also maintain a process of trust-based dialog with employees' representatives and trade unions.
- To prevent corruption and to safeguard fair competition, Deutsche Telekom has a compliance management system which is aligned with the Company's risk situation. The core elements are our Guiding Principles, Code of Conduct and Supplier Code of Conduct; the Compliance Risk Assessment; compliance and anti-corruption trainings; our TellMe whistleblower portal.

Economic activity

Transport by motorbikes, passenger cars and light commercial vehicles

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Taxonomy Alignment

Taxonomy-eligible but not aligned

Financial metric(s)

Turnover

CAPEX

OPEX

Taxonomy-aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned turnover from this activity as % of total turnover in the reporting year

Taxonomy-aligned turnover from this activity that substantially contributed to climate change mitigation as a % of total turnover in the reporting year

Taxonomy-aligned turnover from this activity that substantially contributed to climate change adaptation as a % of total turnover in the reporting year

Taxonomy-eligible but not aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

0

Taxonomy-eligible but not aligned turnover from this activity as % of total turnover in the reporting year

0

Taxonomy-aligned CAPEX from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year

Taxonomy-eligible but not aligned CAPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

130.000.000

Taxonomy-eligible but not aligned CAPEX associated with this activity as % of total CAPEX in the reporting year

0,3

Taxonomy-aligned OPEX from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year

Taxonomy-eligible but not aligned OPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

0

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year

0

Type(s) of substantial contribution

Calculation methodology and supporting information

- Deutsche Telekom has a vehicle fleet that includes both company cars and service vehicles. The economic activity Transport by motorbikes, passenger cars, and light commercial vehicles (6.5) is therefore relevant as a cross-cutting activity that applies to the purchase, the lease, and the operation of vehicles of the classes M1 (passenger cars) and N1 (light commercial vehicles with a maximum weight of 3.5 t).
- We do not generate any turnover with cross-cutting activities. Therefore, exclusively capital expenditure was assigned to economic activity 6.5. and this only if a direct correlation between the measures financed and the turnover-relevant economic activities 8.1, 8.2, and 6.15 was excluded.
- The definition of turnover according to the EU Taxonomy is equivalent to net revenue in our consolidated income statement contained in the consolidated financial statements.
- The relevant capital expenditure was determined on the basis of the consolidated statement of financial position contained in the consolidated financial statements and is determined as the sum of additions and changes within the consolidated group under property, plant and equipment, intangible assets (excluding goodwill), and right-of-use assets.
- Relevant operating expenditure was calculated according to the EU Taxonomy that defines operating expenditure as costs that relate to research and development; building remediation measures; short-term leases; maintenance, and repair; and any other direct expenditures relating to the day-to-day maintenance of property, plant and equipment as relevant operating expenditure.

Technical screening criteria met

No

Details of technical screening criteria analysis

- As we are pushing forward with the transition to a fully electric fleet, especially in Germany and the EU, the majority of new vehicles purchased already meet the CO2 threshold of a maximum of 50g CO2/km (WLTP) set in the EU Taxonomy. Compliance with the CO2 threshold was checked on the basis of product datasheets.

Do no significant harm requirements met

No

Details of do no significant harm analysis

- Do no significant harm analysis for climate change adaptation: As we manage climate risks centrally at Group level, determining whether an activity causes no significant harm to the environmental objective “Climate change adaptation” took place at a higher level for all taxonomy-eligible activities. As part of our security and risk management, we regularly examine our critical infrastructure to check for physical climate risks and take climate adaptation measures to minimize potential risks. The climate risk analysis is carried out using a recognized software platform (Munich Re Location Risk Intelligence) based on the climate scenarios defined by the Intergovernmental Panel on Climate Change (IPCC). According to our corporate risk classification, vehicle depots are not part of the critical infrastructure and thus not linked to material climate risks as defined in the Taxonomy requirements.
- Do no significant harm analysis for the transition to a circular economy: The requirements for recyclability and reusability of the vehicles are part of the EU type approval and are therefore automatically fulfilled by new vehicles registered in the EU. The requirements for managing waste, including through reuse and recycling of batteries and electronics, in accordance with the waste hierarchy, both in the use phase (maintenance) and the end-of-life of the fleet, are met through environmental requirements in contracts with the service providers that are responsible for the fleet management.
- Do no significant harm analysis for pollution prevention and control: The requirement for compliance with the Euro 6 standard is part of the EU type approval and therefore automatically fulfilled by new vehicles registered in the EU. As the choice of tires is left to the vehicle users themselves, we could not provide evidence of the Taxonomy alignment of tires for the reporting year.

Minimum safeguards compliance requirements met

Yes

Details of minimum safeguards compliance analysis

- Compliance with the minimum social safeguards, i.e. the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the ILO Core Conventions and the International Bill of Human Right, is ensured by a management system at Group level. The management system required by the minimum social safeguards covers all our corporate functions including our vehicle fleet management.
- We perform human rights due diligence using a risk-based management system encompassing both the Group and our supply chain that we use to monitor compliance with social and environmental standards. The core elements are regular risk analyses in our own business area and at our suppliers'; a policy statement on human rights; awareness-raising among employees, suppliers, and business partners; a mechanism for lodging complaints; and reporting. We also maintain a process of trust-based dialog with employees' representatives and trade unions.
- To prevent corruption and to safeguard fair competition, Deutsche Telekom has a compliance management system which is aligned with the Company's risk situation. The core elements are our Guiding Principles, Code of Conduct and Supplier Code of Conduct; the Compliance Risk Assessment; compliance and anti-corruption trainings; our TellMe whistleblower portal.

Economic activity

Data-driven solutions for GHG emissions reductions

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Taxonomy Alignment

Taxonomy-aligned

Financial metric(s)

Turnover

CAPEX

OPEX

Taxonomy-aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

565.000.000

Taxonomy-aligned turnover from this activity as % of total turnover in the reporting year

0,5

Taxonomy-aligned turnover from this activity that substantially contributed to climate change mitigation as a % of total turnover in the reporting year

0,5

Taxonomy-aligned turnover from this activity that substantially contributed to climate change adaptation as a % of total turnover in the reporting year

0

Taxonomy-eligible but not aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-eligible but not aligned turnover from this activity as % of total turnover in the reporting year

Taxonomy-aligned CAPEX from this activity in the reporting year (unit currency as selected in C0.4)

0

Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year

0

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year

0

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year

0

Taxonomy-eligible but not aligned CAPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-eligible but not aligned CAPEX associated with this activity as % of total CAPEX in the reporting year

Taxonomy-aligned OPEX from this activity in the reporting year (unit currency as selected in C0.4)

2.000.000

Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year

0,4

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year

0,4

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year

0,4

Taxonomy-eligible but not aligned OPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year

Type(s) of substantial contribution

Activity enabling mitigation

Calculation methodology and supporting information

- We associate those solutions and products in the Group that have clear potential to enable users to save CO2 emissions with the economic activity Data-driven solutions for GHG emissions reductions (8.2). When selecting them, we take into account solutions and products that are incorporated into our Enablement Factor and Sustainable Revenue Share ESG KPIs, and/or that have been awarded our #GreenMagenta label. We thus identified the following Taxonomy-eligible services within our Group-wide business activities:

- o IoT solutions (saves CO2 emissions through, for example, efficient light switching)

We provide these services to a significant financial extent in the Germany operating segment, in our major subsidiaries in the Europe operating segment, and in the Systems Solutions operating segment.

- Turnover, capital expenditure and operating expenditure are directly assigned at the level of product groups to the provision of ICT solutions in accordance with economic activity 8.2. To avoid double counting under the EU Taxonomy, T-Systems' Taxonomy-eligible cloud solutions are only attributed to economic activity 8.2; they are not disclosed under economic activity 8.1.
- The definition of turnover according to the EU Taxonomy is equivalent to net revenue in our consolidated income statement contained in the consolidated financial statements.
- The relevant capital expenditure was determined on the basis of the consolidated statement of financial position contained in the consolidated financial statements and is determined as the sum of additions and changes within the consolidated group under property, plant and equipment, intangible assets (excluding goodwill), and right-of-use assets.
- Relevant operating expenditure was calculated according to the EU Taxonomy that defines operating expenditure as costs that relate to research and development; building remediation measures; short-term leases; maintenance, and repair; and any other direct expenditures relating to the day-today maintenance of property, plant and equipment as relevant operating expenditure.

Technical screening criteria met

No

Details of technical screening criteria analysis

- To date, we have not prepared a life-cycle analysis for the IoT solutions and therefore we do not report them as aligned with the technical screening criteria for climate change mitigation for the reporting year.

Do no significant harm requirements met

No

Details of do no significant harm analysis

- Do no significant harm analysis for climate change adaptation: As we manage climate risks centrally at Group level, determining whether an activity causes no significant harm to the environmental objective “Climate change adaptation” took place at a higher level for all taxonomy-eligible activities. As part of our security and risk management, we regularly examine our critical infrastructure to check for physical climate risks and take climate adaptation measures to minimize potential risks. The climate risk analysis is carried out using a recognized software platform (MunichRe Location Risk Intelligence) based on the climate scenarios defined by the Intergovernmental Panel on Climate Change (IPCC). No material climate risks as defined in the Taxonomy requirements were identified in connection with the Taxonomy-eligible solutions allotted to activity 8.2 Data-driven solutions for GHG emissions reductions.
- Do no significant harm analysis for transition to a circular economy: As the IoT solutions do not meet the technical screening criteria yet, we have not carried out a detailed significant harm analysis for the transition for a circular economy in the reporting year.

Minimum safeguards compliance requirements met

Yes

Details of minimum safeguards compliance analysis

- Compliance with the minimum social safeguards, i.e. the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights, including the ILO Core Conventions and the International Bill of Human Right, is ensured by a management system at Group level. We verified that the management system required by the minimum social safeguards fully covers our business activities that fall under activity 8.2 Data-driven solutions for GHG emissions reductions.
- We perform human rights due diligence using a risk-based management system encompassing both the Group and our supply chain that we use to monitor compliance with social and environmental standards. The core elements are regular risk analyses in our own business area and at our suppliers'; a policy statement on human rights; awareness-raising among employees, suppliers, and business partners; a mechanism for lodging complaints; and reporting. We also maintain a process of trust-based dialog with employees' representatives and trade unions.
- To prevent corruption and to safeguard fair competition, Deutsche Telekom has a compliance management system which is aligned with the Company's risk situation. The core elements are our Guiding Principles, Code of Conduct and Supplier Code of Conduct; the Compliance Risk Assessment; compliance and anti-corruption trainings; our TellMe whistleblower portal.

C3.5c

(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

C4.1a

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

Target reference number

Abs 1

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2017

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Base year

2017

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

342.966

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

3.687.189

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO₂e)

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

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

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

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

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

4.030.155

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

100

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

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

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

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

Target year

2030

Targeted reduction from base year (%)

90

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

403.015,5

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

212.044

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

21.019

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

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

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

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

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

233.062

Does this target cover any land-related emissions?

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

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

104,6856069363

Target status in reporting year

Achieved

Please explain target coverage and identify any exclusions

The target covered 100% of DT scope 1&2 base year emissions.

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

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

- Use of electricity from renewables
- Electrification of fleet
- Reduction of office spaces

Target reference number

Abs 2

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2023

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

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

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Base year

2020

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

225.511

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

2.226.307

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

4.023.946

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

2.616.438

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

692.729

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

1.226.450

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

33.246

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

17.997

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

207.134

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

315.588

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

1.234.214

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

42.534

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

1.053.875

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

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

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

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

11.464.149

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

13.915.967

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

100

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

100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO₂e)

100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO₂e)

100

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e)

100

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e)

100

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO₂e)

100

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO₂e)

100

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

100

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

100

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
55

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
6.262.185,15

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
212.044

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

21.019

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

3.903.545

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

3.897.133

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

546.771

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

946.482

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

58.027

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

28.726

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

218.567

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

325.900

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

1.347.915

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

39.575

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

891.667

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

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

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

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

12.286.923

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

12.254.307

Does this target cover any land-related emissions?

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

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

21,7103130526

Target status in reporting year

New

Please explain target coverage and identify any exclusions

The target covers all scope 1 and 2 emissions of Group Deutsche Telekom

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

Electrification of vehicle fleet, reduction of office spaces, supply chain emission reductions by binding supplier agreements, increase of product life time for sold devices (reducing number of purchased devices), increase device energy efficiency, increase share of refurbished devices, reducing emissions from employee commuting by home office, promotion of commuting by bike or public transportation.

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

Target reference number

Abs 3

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Business division

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

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

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Base year

2020

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

53.180

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

1.858.206

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

2.801.782

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

1.654.473

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

430.000

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

858.288

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

7.180

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

8.390

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

40.146

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

203.347

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

996.288

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

33.929

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

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

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

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

7.033.821

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

8.945.207

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

100

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

99

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

100

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

100

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

100

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

100

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

100

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

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

100

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

99,8

Target year

2030

Targeted reduction from base year (%)

55

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

4.025.343,15

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

97.080

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

0

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO₂e)

2.684.359

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO₂e)

1.976.126

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO₂e)

447.047

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO₂e)

666.041

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

33.331

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

37.115

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

53.324

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

234.035

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

1.008.789

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

28.738

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

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

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

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

7.168.946

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

7.266.026

Does this target cover any land-related emissions?

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

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

34,1306396111

Target status in reporting year

New

Please explain target coverage and identify any exclusions

Upon achieving our Science-Based Targets (Abs 1, Int 1) four years ahead of schedule, T-Mobile set an updated near-term Science-Based Target in late 2022. This officially validated Science-Based Target is to reduce absolute Scope 1, Scope 2 and Scope 3 GHG emissions 55% by 2030 from a 2020 base year. This commitment includes emissions from Sprint, which was acquired by T-Mobile in 2020.

Per the SBTi Target Validation Protocol, T-Mobile's base year and reporting year GHG emissions exclude Scope 3 Category 11 indirect use-phase emissions from sold contracts. These indirect use-phase emissions totalled 286,427 metric tons CO2e in 2020 and 325,718 metric tons CO2e in 2022. Additionally, <1% of Scope 2 GHG emissions from activities outside of the United States, Puerto Rico, and the U.S. Virgin

Islands were excluded.

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

Our strategy to reduce Scope 1 and 2 emissions relies first and foremost on reducing energy consumption and investing in energy efficient technologies. T-Mobile is already reducing the energy demands of our network in several ways, including:

- Strategically decommissioning tens of thousands of macro cell sites resulting from the integration of the Sprint network, as well as retiring legacy technology.
- Replacing air conditioning units from cell site cabinets with direct air-cooling fan doors to help control the on-site temperature of cell towers more efficiently. This directly reduces the amount of energy needed at the site.
- Implementing network software features across approximately half our network sites that enabled our radio-network equipment to optimize energy consumption by better managing lower network traffic demands.

Our energy reduction and efficiency measures are complemented by our commitment to source 100% of our electricity from renewable energy sources. By shifting to electricity sources that have significantly lower emissions, such as solar and wind, we help reduce our Scope 2 emissions and maintain our 100% renewable electricity goal.

To get a full view of Scope 3 emissions, T-Mobile measures and reports on 10 categories that are relevant to our business. The largest Scope 3 contributors are purchased goods, capital goods, and use of sold products. Strategic supplier engagement is critical to identifying and reducing emissions from these parts of our value chain. One of the ways we encourage emissions reduction in our supply chain is by encouraging our suppliers to commit to setting their own science-based targets (to be validated by SBTi). We track these commitments through regular third-party sustainability assessments managed by EcoVadis. By working with our suppliers to implement meaningful sustainability initiatives, we can “bend the curve” through emissions reductions in our largest Scope 3 categories.

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

Target reference number

Abs 4

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

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

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 7: Employee commuting

Category 9: Downstream transportation and distribution

Category 11: Use of sold products

Category 12: End-of-life treatment of sold products

Category 13: Downstream leased assets

Base year

2017

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

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

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

4.656.976

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

2.409.636

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

790.242

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

756.299

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

60.014

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

103.502

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

627.817

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

405.372

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

4.472.831

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

31.974

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

1.044.356

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

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

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

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

15.359.019

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

15.359.019

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

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

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO₂e)

100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO₂e)

100

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e)

100

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e)

100

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO₂e)

100

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

100

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

100

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

100

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

100

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2040

Targeted reduction from base year (%)
90

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
1.535.901,9

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

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

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO₂e)

3.903.545

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO₂e)

3.897.133

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO₂e)

546.771

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO₂e)

996.482

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO₂e)

58.027

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO₂e)

28.726

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO₂e)

218.567

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO₂e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO₂e)

325.900

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

3.969.916

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

39.575

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

891.667

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

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

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

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

14.908.924

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

14.872.308

Does this target cover any land-related emissions?

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

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

3,5209931051

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

The target covers 100% of scope 3 base year emissions. As scope 3 category 15 was not reported in the base year and no historic data are available the emissions from scope 3 category 15 are not included within the target.

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

Main measures to achieve the target include supply chain emission reductions by binding supplier agreements, increase of product life time for sold devices (reducing number of purchased devices), increase device energy efficiency, increase share of refurbished devices, reducing emissions from employee commuting by home office, promotion of commuting by bike or public transportation. Remaining emissions will be compensated by credible carbon removals.

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

C4.1b

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

Target reference number

Int 1

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

1.5°C aligned

Year target was set

2017

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

Category 11: Use of sold products

Category 13: Downstream leased assets

Intensity metric

Other, please specify

Kg CO₂e per customer

Base year

2017

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

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

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

20,24

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

10,12

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

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

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

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

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

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

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

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

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

18,44

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

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

4,51

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

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

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

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

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

53,3

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

53,3

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

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

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

100

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

100

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

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

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

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

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

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

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

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

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

100

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

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

100

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

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

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

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

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

100

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

82

Target year

2030

Targeted reduction from base year (%)

25

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

39,975

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

-1

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

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

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

15,54

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

15,51

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

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

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

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

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

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

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

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

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

16,82

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

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

3,55

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

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

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

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

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

51,4

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

51,4

Does this target cover any land-related emissions?

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

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

14,2589118199

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

The target covers all scope 3 emissions in the 4 most relevant scope 3 categories and 82% of all scope 3 emissions in the base year. The focus was clearly set on the most relevant categories to work on the biggest levers for scope 3 carbon emission reductions.

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

- Supply chain emissions reductions in close cooperation with our suppliers
- Including carbon emissions into sourcing decisions
- Increasing energy efficiency of devices and customer premise equipment (CPE)
- Virtualization of devices as e.g. TV boxes

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

C4.2

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

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

Net-zero target(s)

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

2021

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2017

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

0

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

0

Target year

2022

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

100

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

100

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

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

The target is to keep renewable electricity consumption at 100% after the initial target, to have 100% electricity from renewables w, which was set in 2019 was achieved in 2021. The target is not part of a carbon emission reduction target but supports all carbon emission reduction targets related to the reduction of scope 2 emissions.

Is this target part of an overarching initiative?

RE100

Please explain target coverage and identify any exclusions

Target covers 100% of DT electricity consumptions in the base year.

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

List the actions which contributed most to achieving this target

Purchase of electricity from renewables through PPAs or Guarantees of Origin. There is also a small share of own production of electricity from renewables.

We set the target to increase the share of renewable electricity from green PPAs to 50% by 2025.

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

Intensity

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

Energy consumption or efficiency

MWh

Target denominator (intensity targets only)

unit of service provided

Base year

2019

Figure or percentage in base year

120

Target year

2030

Figure or percentage in target year

95

Figure or percentage in reporting year

91

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

116

Target status in reporting year

Achieved

Is this target part of an emissions target?

NO

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

The ESG KPI also takes into account total energy consumption for all energy sources – fuel, gas, district heating and electricity. The data volume is composed of the transmitted IP img data volumes (including Voice over IP, Internet, IP-TV).

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

List the actions which contributed most to achieving this target

We operate our own fixed-line and mobile networks in Europe and the United States. The majority of our energy requirements come from operating this network infrastructure. To handle growing amounts of data and improve the speed and quality of data transmission, we continuously increase the capacity and performance of our networks. To ensure increasing energy efficiency according to our target, we are pursuing various approaches:

- We are updating our network infrastructure, e.g., by migrating the fixed network to IP technology and removing equipment we no longer need, such as 3G antennas. The 3G network was switched off in Germany on June 30, 2021.
- We have established specifications and requirements that firmly anchor energy efficiency in the architecture and design phase when selecting new technologies.

- We use more energy-efficient technology for our networks. This also applies to the lighting, monitoring and, above all, cooling of our plants.
- The energy management practices of our internal energy service provider Power & Air Solutions have been ISO 50001 certified since 2013.
- We are optimizing energy efficiency throughout the entire supply chain for all locations of Telekom Technik, thereby reducing our carbon footprint.
- We are expanding our use of photovoltaic systems at Deutsche Telekom locations. In the process, we are emphasizing use of power storage systems and intelligent load management.
- Power & Air Solutions is testing innovative technologies such as fuel cells; energy generation from waste heat, via gas turbines and ice-storage systems for support of mechanical cooling systems.
- Also, in the framework of our energy management in Germany, we are working to reduce the energy requirements of our buildings. We continuously monitor consumption values and use this data to identify potential for improving efficiency.
- In 2020, we published an energy guideline applicable throughout the Group. It helps our national companies implement our Climate Strategy. The guideline compiles selected measures and proposed solutions for better energy efficiency, including operational energy-saving functions, optimized energy management, decommissioning of legacy systems, and/or the use of more energy-efficient technologies. The guideline is currently under review

Target reference number

Oth 2

Year target was set

2021

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

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

Engagement with suppliers

Other, please specify

% Purchasing Volume covered by suppliers responding to the CDP Supply Chain Program

Target denominator (intensity targets only)

Base year

2016

Figure or percentage in base year

65

Target year

2022

Figure or percentage in target year

70

Figure or percentage in reporting year

70

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

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

The target to cover 70% of our procurement order volume by supplier responses to the CDP Supply Chain Program was still valid in 2022, as the target supports our scope 3 emission reduction target of 25% per customer against 2017 by 2030 the latest (and also our new 2030 interim target to reduce scope 1-3 emissions by 55% against 2020 by 2030) . The value for 2022 to calculate the target achievement is estimated based on 2021 data as not all procurement organizations have been able to provide data for 2022.

We are currently developing new targets with focus on emission transparency and supplier engagement in carbon emission reductions.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

The target is based on the overall group wide purchasing order volume (POV). The KPI measures the POV covered by suppliers responding to the CDP supply divided by the overall POV from the last period.

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

List the actions which contributed most to achieving this target

To achieve the target we addressed 445 suppliers, covering more than 80% of our spend, to provide data via the CDP Supply Chain Program. We did supplier webinars to explain our approach and distributed the recordings and slides afterwards. We sent several reminders to motivate our suppliers to provide data through the CDP reporting platform. We also tightened the requirements to our suppliers to provide emission transparency and to reduce carbon emissions with the new supplier code of conduct introduced in May 2022.

C4.2c

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

Target reference number

NZ1

Target coverage

Company-wide

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

Abs1

Target year for achieving net zero

2025

Is this a science-based target?

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

Please explain target coverage and identify any exclusions

This target covers all scope 1 & 2 emissions company-wide (2017: 4.03 mio. t). Up to 95% of the target should be reached by emission reductions (mainly through switching electricity consumption to renewables), the rest will be covered by credible carbon removals.

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

Yes

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

- 100% electricity from renewables by 2021

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

- Reduction of supply chain emissions by addressing binding supplier emission reductions. Therefore DT set up a taskforce with group corporate responsibility and all relevant procurement organizations within DT
- Increase in device energy efficiency

Target reference number

NZ2

Target coverage

Company-wide

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

Abs2

Target year for achieving net zero

2040

Is this a science-based target?

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

Please explain target coverage and identify any exclusions

The target covers all the scope 3 emissions group-wide (2020: 11,464,149 t). DT will reduce its scope 3 emissions by at least 90% % by 2040. To reduce the scope 3 emission DT is actively addressing its suppliers to comply with the DT scope 3 emission reduction targets. DT also plans to engage its customers into emission reductions and carbon offsets. Remaining emissions should be compensated by credible long-term carbon removals.

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

Yes

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

Interim target for 2030: 55%reduction of scope 1-3 emissions (excluding indirect use phase from third party devices)

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

- Electricity 100% from renewables
- Supply chain emission reductions: Therefore the new supplier code of conduct requires supply chain emission transparency on verified scope 1-3 emissions (scope 3 cat. 1-8), a taskforce on supplier chain emission reductions was set up to drive binding supplier commitments to emission reductions supporting our carbon neutrality targets
- Increasing energy efficiency of sold and leased products as smart phones, tablets, routers , media receiver etc.
- Increasing refurbished content of devices and increasing the percentage of refurbished devices sold
- Reducing commuting related emissions by promotion of alternative modes of transportation as using public transport, commuting by bike and use of home office

- Update of travel policy to restrict business travel, especially the use of less environmental friendly modes of transports than flights or the use of fossil fuel driven vehicles

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	4.029	1.261.894
To be implemented*	584	1.239.566
Implementation commenced*	273	872
Implemented*	33.100	996.059
Not to be implemented	2.667	7.520

C4.3b

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

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

177

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

45.000

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

600.000

Payback period

11-15 years

Estimated lifetime of the initiative

16-20 years

Comment

Initiative category & Initiative type

Energy efficiency in production processes

Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)

251

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

88.642

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

354.569

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

0.4055 GWh in electricity savings (500 Kwh per single measure)

New efficient air-conditioning units in or dismantling air-conditioning units

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

68.998

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

16.705.500

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

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

All measures of the project PLASMA enabled electricity consumption savings of 111 GWh only in 2022.

Initiative category & Initiative type

Energy efficiency in production processes

Other, please specify

bundle of measures including replacement, shut down and process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

6.845

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

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

1.738.500

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

Payback period

4-10 years

Estimated lifetime of the initiative

6-10 years

Comment

11,59 GWh beside measures included in PLASMA, including RLT deactivation, optimization of rectifiers (minimizing losses), RL TLT Split restoration DLÜA, GLR, RLT, split units, USV, UGV

Initiative category & Initiative type

Low-carbon energy consumption

Other, please specify

Wind, solar & hydro

Estimated annual CO2e savings (metric tonnes CO2e)

559.623

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

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

No payback

Estimated lifetime of the initiative

3-5 years

Comment

Generation and retirement of renewable energy certificates (RECs) from utility contracts in deregulated markets.

Initiative category & Initiative type

Energy efficiency in buildings

Building Energy Management Systems (BEMS)

Estimated annual CO2e savings (metric tonnes CO2e)

2.156

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

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

780.064

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

10.385.371

Payback period

11-15 years

Estimated lifetime of the initiative

6-10 years

Comment

Energy management system (EMS) installations at T-Mobile retail stores.

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO2e savings (metric tonnes CO2e)

25.882

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

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

9.363.328

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

100.267

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

LED lighting retrofits and lighting control upgrades at T-Mobile retail stores.

Initiative category & Initiative type

Energy efficiency in buildings

Heating, Ventilation and Air Conditioning (HVAC)

Estimated annual CO2e savings (metric tonnes CO2e)

484

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

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

174.924

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

9.622.857

Payback period

>25 years

Estimated lifetime of the initiative

21-30 years

Comment

Proactive HVAC RTU replacements at T-Mobile retail stores.

Initiative category & Initiative type

Company policy or behavioral change

Site consolidation/closure

Estimated annual CO2e savings (metric tonnes CO2e)

325.340

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

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

1.177.285

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Decommissioning of Legacy-Sprint cell sites and mini macros.

Initiative category & Initiative type

Company policy or behavioral change

Supplier engagement

Estimated annual CO₂e savings (metric tonnes CO₂e)

5.450

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

Scope 3 category 4: Upstream transportation & distribution

Voluntary/Mandatory

Voluntary

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

5.784.537

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

Reduced tractor trailer and expedite van shipments from network transportation optimization efforts.

Initiative category & Initiative type

Energy efficiency in buildings

Lighting

Estimated annual CO₂e savings (metric tonnes CO₂e)

853

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

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

420.237

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

57.363

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

LED lighting replacement T-Mobile retail stores.

C4.3c

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

Method	Comment
Financial optimization calculations	As energy savings are cost savings DT is investing money into energy efficiency measures depending on available capital and sufficient return on investment.
Compliance with regulatory requirements/standards	ISO 50001 Energy Management System: Plan, do, check, act circle, concepts/methods with emission cluster "buildings". Introduction of KPIs and newly defined processes.
Compliance with regulatory requirements/standards	According to the EU Energy Efficiency Guideline, Energy Audits according to DIN ISO 16247.
Compliance with regulatory requirements/standards	DT has signed the EU Broadband Code of Conduct and the EU Data Centres Code of Conduct. Therefore, DT is committed to be compliant to these standards.
Employee engagement	DT has an employee suggestion system, that allows employees to provide their ideas, not only for financial savings but also for reducing the environmental impact. Additionally, DT started in 2018 with its voluntary Green Pioneer Program. The program members are invited to provide their ideas to make the company "greener" and more sustainable. In between more than 300 employees belong to the "Green Pioneer" community.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Group of products or services

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

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other

Other, please specify

Sustainable Packaging

Description of product(s) or service(s)

The sustainable packaging is mainly made of recycled materials and is free of plastic. The packaging is 100% recyclable. The use of soy-based printing ink makes the recycling of the packaging easier and does not harm the environment.

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

Yes

Methodology used to calculate avoided emissions

The Avoided Emissions Framework (AEF)

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

Cradle-to-gate + end-of-life stage

Functional unit used

Send 10.000 products in packages

Reference product/service or baseline scenario used

Comparison of sustainable packaging and the packaging used before (single-use plastic, low recycled material ratio, poor recyclability)

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

Cradle-to-gate + end-of-life stage

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

0,9

Explain your calculation of avoided emissions, including any assumptions

In the baseline situation and in the target situation, the time effort in the product design / management phase was evaluated equally, based on an expert assessment. In the Suppliers / Purchasing phase, the two situations differ. In the Baseline situation virgin corrugated cardboard, PP plastic and mineral oil based print colours are used, while in the target situation FSC mix craft-paper and soy based print colours are used. This also results in differences in the end of life phase. In the baseline situation, virgin paper waste and plastic waste are generated, while in the target situation FSC mix craft-paper waste is generated. The resources were calculated with emission factors.

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

0

Level of aggregation

Group of products or services

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

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

Business Conferencing, small virtual meeting

Description of product(s) or service(s)

Business Conferencing substitute former on-site meetings and a few audioconferences.

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

Yes

Methodology used to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

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

Use stage

Functional unit used

The functional unit is defined to be the (business) meetings over a year with the possibility to share facial expressions, audio and screen content. It is assumed that 220 such meetings take place per year.

Scenario 1: small virtual meeting, 4 persons, 1 hour

Reference product/service or baseline scenario used

Comparison of business conferencing and meetings without business conferencing.

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

Other, please specify

Manufacturing, use phase and end of life

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

0,000659

Explain your calculation of avoided emissions, including any assumptions

Scenario 1: Small virtual meeting

Four employees work together and share information via the Telekom service, the web conference platform. Two persons with a small commuting distance commute to their offices by public transport and join the meeting from their office desks, two persons work from home. The assumed duration of the meeting is 1 hour.

- Hardware equipment: 4x laptop, 3x35-inch display based on the assumption that 75% of laptops used is accompanied by display, broadband network
- Distance travelled per workday and direction: 20 km by transport according to the average German modal split for commuters (cf. section 3.1.1)

- Four employees work together and share information via the Telekom service, the web conference platform. Two persons with a small commuting distance commute to their offices by public transport and join the meeting from their office desks, two persons work from home. The assumed duration of the meeting is 1 hour.

For comparison, the reference scenario is defined as follows:

- Four employees work together and share information via audio and other digital content in a meeting room, but without the Telekom service. Therefore, they meet in one office to which they commute. The assumed duration of the meeting is 1 hour.
- Hardware equipment: 1x desktop computer, 1x 35-inch display, modal split transport
- Distance travelled per workday and direction: 20km by transport according to modal split

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

0

Level of aggregation

Group of products or services

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

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

Business Conferences, large hybrid meeting

Description of product(s) or service(s)

Business Conferencing substitute former on-site meetings and a few audioconferences.

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

Yes

Methodology used to calculate avoided emissions

The Avoided Emissions Framework (AEF)

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

Use stage

Functional unit used

The functional unit is defined to be the (business) meetings over a year with the possibility to share facial expressions, audio and screen content. It is assumed that 220 such meetings take place per year.

Scenario 2: large hybrid meeting, 12 persons, 4 hours

Reference product/service or baseline scenario used

Comparison of event conferencing and on-side events

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

Other, please specify

Manufacturing, use phase and end of life

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

0,011

Explain your calculation of avoided emissions, including any assumptions

Scenario 2: Large hybrid meeting

- 12 people located across Germany meet in a web conference to share audio, video and other digital content. Of those 12 people, 6 uses the video conference system in a conference room, 5 participate from home, 1 person participates remotely while travelling, no catering. The assumed duration of the meeting is 4 hours.
- Hardware Equipment: 12 laptops, 90-inch Monitor, 3,75x35-inch display based on the assumption that 75% of laptops used is accompanied by display, 6xbroadband, 1x mobile network, 6x wifi-router
- Distance travelled per workday and direction: 6x20 km by modal split, allocation factor 1/8

For comparison, the reference scenario is defined as follows:

- 12 people meet in the conference room, the assumed duration of the meeting is 4 hours.
- Hardware Equipment: 12 laptops, 1 digital projector
- Distance travelled per workday and direction: 12x20 km by modal split, allocation factor 1/8

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

0,1

Level of aggregation

Group of products or services

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

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other

Other, please specify

Low Carbon Mobility Management (LCMM)

Description of product(s) or service(s)

The use of Drive & Track creates transparency and accurate positioning of vehicles in real time. This allows routes to be optimized and vehicles to be navigated. Live feedback can be used to control driver behaviour. Drive & Track also provides a digital driver's logbook that automatically transmits data.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

ISO 23795

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

Use stage

Functional unit used

Use of one Fleet Tracker/ one fleet vehicle over the course of a year

Reference product/service or baseline scenario used

Comparison of fleet vehicles with LCMM and fleet vehicles without LCMM

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

Use stage

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

362.170

Explain your calculation of avoided emissions, including any assumptions

While in the baseline situation no product development is necessary, in the target situation the working time was calculated. Furthermore, only the paper consumption for the logbook was included in the baseline situation, but the production of the SIM card and the tracker as well as the energy consumption were included in the target situation. Working hours due to customer onboarding, etc. and logistics for the products are also only incurred in the target situation. In the baseline situation, however, tire wear (microplastics) was included. In the customer use phase, savings (fuel consumption, fleet costs, damage costs, vehicle wear and tear, fuel costs, working hours) are made in the target situation. In the end-of-life phase, the disposal of the products is also taken into account in the target situation. CO₂ emission factors were used to compare the environmental impact of the situations.

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

0

Level of aggregation

Group of products or services

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

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other

Other, please specify

Airport Collaborative Decision Making (A-CDM)

Description of product(s) or service(s)

Airport CDM is a concept that facilitates intense collaboration between all stakeholders, using improved quality and more timely exchange of information. Also result in better capacity management. Fuel reductions can be achieved through improved pre-departures sequencing, resulting in taxi-out time savings and reduced delays in air traffic flow management.

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

Yes

Methodology used to calculate avoided emissions

The Avoided Emissions Framework (AEF)

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

Use stage

Functional unit used

consumption per departure

Reference product/service or baseline scenario used

departures without A-CDM

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

Use stage

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

0,092

Explain your calculation of avoided emissions, including any assumptions

In the baseline situation, resources are only used in the customer use phase. There, energy consumption per screen/PC, delay minutes and their fuel consumption as well as taxi time and their fuel consumption are included. In the target situation, development costs, working hours, electricity use and travel to the customer are also included in the calculation. CO₂ Emission factors were used to compare the environmental impact of the baseline situation and the target situation.

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

0

Level of aggregation

Group of products or services

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

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

OpenTelekom Cloud (OTC)

Description of product(s) or service(s)

With the "Open Telekom Cloud" (OTC), a product is offered with which customers can combine and scale data centre capacities according to their needs. For this purpose, T-Systems has almost 17,000 computing servers and data storage servers available, which can be used as a virtualised cloud infrastructure. The servers can be categorised into three types: firstly, servers for computing tasks; secondly, storage servers to store and access large amounts of data; and thirdly, other servers for Infrastructure as a Service (IaaS) which are not covered by type 1 and type 2. In addition, the OTC infrastructure includes about 4,000 other network components, firewalls, routers and controllers, which enable a fast

connection of the servers to the internet. Within this infrastructure, Telekom offers a wide range of different products and services.

As an alternative product with which OTC is compared in this assessment, the three server types (compute, storage, others) are operated as individual machines in a local data centre or server room infrastructure together with the required network infrastructure. This means that the cloud tasks can be performed with local infrastructure.

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

Yes

Methodology used to calculate avoided emissions

Evaluating the carbon-reducing impacts of ICT

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

Other, please specify

For the IT hardware, its Product carbon footprint (PCF) is taken into account in the life cycle phases of production, transport and disposal.

The use phase is included through the energy consumption during the operation of the equipment.

Functional unit used

The functional unit here is defined as the smallest realistic hardware size, one individual server each for computing tasks, one for storage tasks and one for other computing tasks. In addition, the other IT components required for operation (network, firewall, controller, etc.) are added to these servers proportionally, as well as the required technical building infrastructure and its losses. Out of the functional units the impact is calculated for service units vCPUs, TByte and others.

Reference product/service or baseline scenario used

As an alternative product with which OTC is compared in this assessment, the three server types (compute, storage, others) are operated as individual machines in a local data centre or server room infrastructure together with the required network infrastructure. This means that the cloud tasks can be performed with local infrastructure.

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

Other, please specify

For the IT hardware, its Product carbon footprint (PCF) is taken into account in the life cycle phases of production, transport and disposal. The use phase is included through the energy consumption during the operation of the equipment.

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

0,000134

Explain your calculation of avoided emissions, including any assumptions

To calculate the environmental impact of the OTC services, the annual PCFs of the hardware, the greenhouse gas (GHG) emissions resulting from the annual electricity consumption and the annual WEEE were first related to the functional units (number of servers) and then to the service units provided by these.

The comparison case differs (as described above) by a lower utilisation of the servers, which leads to a lower number of service units being provided per server. The energy consumption of the servers decreases due to the lower utilisation, but not to the same extent as the utilisation decreases. The second difference is the higher losses in the building services due to the higher PUE value.

Basically the carbon emissions reductions from the OTC solution reach 50%. For computing the carbon impact per virtual CPU can be reduced from 0.282 Kg to 0.141 kg, the impact per TBYTE storage from 0.269 to 0.135 kg and for other computing units for the provision of Infrastructure as a Service (IaaS) from 15.668 kg per service unit to 7.834 kg per service unit.

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

0,1

Level of aggregation

Group of products or services

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

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other

Other, please specify

Broadband Telecommuting

Description of product(s) or service(s)

Telecommuting refers to a work set-up where employees can choose the location where they work freely and do not necessarily have to be physically present in a central office but rather share their work and collaborate with colleagues via broadband. ICT solutions enable telecommuting through Broadband and mobile data. ICT-enabled shift from physical commuting to telecommuting leads to CO2 emission reductions by avoiding fuel for commuting to a central office location.

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

Yes

Methodology used to calculate avoided emissions

The Avoided Emissions Framework (AEF)

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

Use stage

Functional unit used

Annual emission reductions per employee

Reference product/service or baseline scenario used

Baseline 2012

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

Use stage

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

7.674.512

Explain your calculation of avoided emissions, including any assumptions

Emissions reductions due to enablement of telecommuting were calculated by factoring employee equivalents working from home with average working days per year, average fuel consumption, CO₂ emissions therefrom, average commuting distance across all modes of transportation, and the share of employees commuting by car. DT's market factor was then factored in.

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

9,4

Level of aggregation

Group of products or services

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

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Other

Other, please specify

Future Cloud Infrastructure (FCI)

Description of product(s) or service(s)

The "Future Cloud Infrastructure" service of T-Systems provides a hardware environment that can be used like a cloud platform, but which consists of dedicated hardware in T-Systems' area of responsibility that is used exclusively by the customer itself. This means that sensitive data can also be processed in the "Future Cloud Infrastructure". The FCI can either consist of an ICT infrastructure operated by T-Systems on-site at the customer's premises or hosted in one of T-Systems' cloud data centers in Germany.

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

Yes

Methodology used to calculate avoided emissions

The Avoided Emissions Framework (AEF)

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

Other, please specify

Production, transport and disposal of the required hardware, the energy consumption of the servers used and the energy losses due to the technical building equipment (air conditioning and energy supply)

Functional unit used

The functional unit here is the provision of cloud-based IT infrastructure as a service that meets the customer's actual computing needs. Case study: hypothetical customer whose computing needs correspond to the performance of a server (Lenovo Think Agile VX 1U SR 630), which consists of 2x24 CPU cores, 1,536 GByte of physical RAM and 2x25 Gbps uplink speed over the period of one year.

The service unit is delivering the "FCI-Type B" Service as a single service unit ("1U Server").

Reference product/service or baseline scenario used

The reference scenario describes a generic best-in-class on-premises ICT-infrastructure operated by a company that is considered a potential customer of the T-system FCI service. A on-premises ICT that is assumed to be functionally equivalent with FCI is assumed to consist of a server of the same design that is not operated in the T-Systems infrastructure but in a customer-owned data centre or server room.

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

Other, please specify

Production, transport and disposal of the required hardware, the energy consumption of the servers used and the energy losses due to the technical building equipment (air conditioning and energy supply)

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

1,014

Explain your calculation of avoided emissions, including any assumptions

The input parameters are the servers used for this service, their electrical power loads, their product carbon footprint for production, transport and disposal, their technical service life, and their energy consumption. In order to take the losses of the technical building equipment into account, the PUE value of the data centre is also included in the calculation, which represents the ratio of the electricity consumption of the entire data centre to the electricity consumption of the information technology.

The service is provided by 2 different server designs: the Lenovo Think Agile VX 1U SR 630 (54 units) and the Lenovo Think Agile VX 4U SR 950 (10 units). Based on the performance of the servers, which are documented in technical data sheets, the 2nd server (4U) was identified as four times as powerful as the 1st server (1U), which is why the number of servers could be represented in performance-equivalent 1U servers. That means the U4 server contains 4 functional units of the 1U server.

A comparison case "local 1U server" is defined, which is used as a reference case for calculating the environmental benefit of the FTC solution. It is assumed that the same service unit ("1U server") is operated in one's own data centre infrastructure or one's own server room. This means that the use of the FCI-Type B service does not differ from the reference scenario in terms of the probability of failure at server level. The differences arise solely due to the lack of scaling advantages that distinguish a large data centre from a small data centre; specifically, higher technical equipment losses are assumed for the small data centre. A PUE value of 1.6 is assumed for the comparison case. This corresponds to the current technical status of an average data centre, as revealed by the survey of the Uptime Institute (2021). The server utilisation is at the same level as for the FCI service, namely 50%, since a complete physical server is offered as a service here, which is equally utilised in both cases. For the comparison, it was also assumed that there are no differences in data network between the scenarios or that data network components do not play a role.

To calculate the environmental impact of the FCI service, the input parameters listed above are referred to the number of service units.

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

0,01

C5. Emissions methodology

C5.1

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

No

C5.1a

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

Row 1

Has there been a structural change?

No

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?
Row 1	No

C5.2

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

Scope 1

Base year start

Januar 1, 2017

Base year end

Dezember 31, 2017

Base year emissions (metric tons CO₂e)

342.966

Comment

Change of base year according to our new climate change targets 2017. Due to the acquisition of Sprint the baseline for 2017 needed to be adjusted against the last year.

With our new 2030 target decided this year, we will shift the base year to 2020 next year.

Scope 2 (location-based)

Base year start

Januar 1, 2008

Base year end

Dezember 31, 2008

Base year emissions (metric tons CO₂e)

2.698.497

Comment

The location-based approach is no longer relevant for DT climate targets.

Scope 2 (market-based)

Base year start

Januar 1, 2017

Base year end

Dezember 31, 2017

Base year emissions (metric tons CO₂e)

3.687.189

Comment

Change of base year according to our new climate change targets 2017. Due to the acquisition of Sprint the baseline for 2017 needed to be adjusted against the last year.

For the climate change targets from 2013 (Group without TM US) the base year was 2008 and the related emissions have been 1,481,000 metric tons of CO₂e.

With our new 2030 target decided this year, we will shift the base year to 2020 next year.

Scope 3 category 1: Purchased goods and services

Base year start

Januar 1, 2017

Base year end

Dezember 31, 2017

Base year emissions (metric tons CO₂e)

4.656.976

Comment

With our new 2030 target decided this year, we will shift the base year to 2020 next year.

Scope 3 category 2: Capital goods

Base year start

Januar 1, 2017

Base year end

Dezember 31, 2017

Base year emissions (metric tons CO₂e)