

Greenhouse gas ('GHG') emissions

Reducing our environmental impact and helping to decarbonise society is an integral part of Vodafone's purpose. This year, the need for a green digital transition became ever-more urgent, as the global climate and energy crises deepened.

We recognise the urgent need to play our part in addressing the global climate crisis. The ICT sector is responsible for an estimated 1.8% to 2.8% of global greenhouse gas emissions. As we move towards an ever-more digital society, with increasing volumes of internet use and mobile data traffic, we are committed to driving down our emissions in absolute terms, in line with what current science indicates to avoid dangerous climate change.

Scope 1 GHG emissions^{1,2}

[Link to reporting methodology](#)

million tonnes CO ₂ e	2019	2020	2021	2022	2023
Diesel and petrol	0.16	0.18	0.19	0.19	0.20
Transport (fleet)	0.07	0.06	0.03	0.04	0.04
Refrigerant gases	0.04	0.06	0.07	0.04	0.03
Natural gas and other fuels	0.01	0.01	0.01	0.01	0.01
Total Scope 1 GHG emissions	0.28	0.32	0.30	0.28	0.28

¹ Following the disposal of Hungary and Ghana during the year (see Reporting criteria scope for more details) data for these entities are included for 10 months and 11 months respectively. We will amend our baseline data for both these disposals in FY24.
² FY23 includes data relating to 'Vintage Towers for which there was a change of control during the year (see Reporting criteria scope). We will amend our baseline data for this change in control where appropriate in FY24.

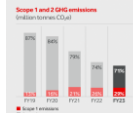


Scope 1 and 2 GHG emissions

[Link to reporting methodology](#)

million tonnes CO ₂ e	2019	2020	2021	2022	2023
Market-based method					
Scope 1 GHG emissions ⁴	0.28	0.32	0.30	0.28	0.28
Scope 2 GHG emissions (market-based method) ⁵	1.90	1.69	1.12	0.80	0.69
Total Scope 1 and Scope 2 GHG emissions (market-based method)^{4,5}	2.18	2.01	1.42	1.08	0.97
of which: Germany Scope 1 and Scope 2 GHG emissions (market-based method)	0.51	0.27	0.02	0.02	0.02
of which: Italy Scope 1 and Scope 2 GHG emissions (market-based method)	0.17	0.06	0.04	0.01	0.01
of which: UK Scope 1 and Scope 2 GHG emissions (market-based method) ⁷	0.15	0.09	0.06	0.02	0.01
of which: Spain Scope 1 and Scope 2 GHG emissions (market-based method) ⁸	0.23	0.12	0.00	0.00	0.01
method ⁹	0.66	0.67	0.70	0.72	0.60
Location-based method					
Scope 1 GHG emissions ⁴	0.28	0.32	0.30	0.28	0.28
Scope 2 GHG emissions ⁵	2.24	2.21	2.07	1.99	2.08
Total Scope 1 and Scope 2 GHG emissions (location-based method)^{4,5,7}	2.52	2.53	2.38	2.27	2.37

³ Following the disposal of Hungary and Ghana during the year (see Reporting criteria scope for more details) data for these entities are included for 10 months and 11 months respectively. We will amend our baseline data for both these disposals in FY24.
⁴ FY23 includes data relating to 'Vintage Towers for which there was a change of control during the year (see Reporting criteria scope). We will amend our baseline data for this change in control where appropriate in FY24.
⁵ FY22 Scope 2 emissions location and market-based have been restated following the correction or exclusion of data points in line with our reporting methodology. In addition, FY22 Scope 2 market-based emissions for the UK (which were previously reported as 0.86 million tonnes CO₂e) have been restated to apply the correct market-based emissions factor.
⁶ Following the transfer of Egypt during the year (see Reporting criteria scope) FY23 data for Vodafone Group excludes Egypt. We will amend our baseline data for this transfer in FY24.
⁷ FY23 location-based emissions for South Africa have been calculated using the emissions factor provided by the state-owned energy provider. In previous years, emissions for South Africa were reported using the IEA factor and have not been restated. Had the IEA factor been applied in FY23, the emissions for South Africa would have been 1.06 million tonnes of CO₂e. We will amend our baseline data in 2024.
⁸ 2023 and 2022 Assessed by KPMG LLP. See 'Assurance' sheet for further information on 2023 and see our 2022 ESG Addendum <https://investors.vodafone.com/uk> for information on assurance for 2022.
⁹ 2023 and 2022 Assessed by KPMG LLP. See 'Assurance' sheet for further information on 2023 and see our 2022 ESG Addendum <https://investors.vodafone.com/uk> for information on assurance for 2022.

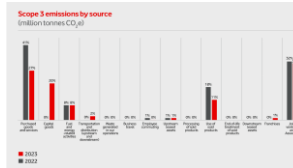


Scope 3 GHG emissions^{8,9}

[Link to reporting methodology](#)

million tonnes CO ₂ e	2019	2020	2021	2022	2023
Purchased goods and services^{10,11}	4.00	3.71	3.99	3.90	2.73
Capital goods ¹²	-	-	-	-	1.97
Fuel and energy-related activities ¹³	0.66	0.69	0.61	0.81	0.75
Transportation and distribution (upstream and downstream) ¹⁴	-	-	-	-	0.22
Waste generated in our operations	0.00	0.00	0.00	0.00	0.00
Business travel	0.06	0.05	0.00	0.01	0.03
of which: Air travel ¹⁵	0.05	0.05	0.00	0.01	0.01
of which: Other travel	-	-	-	0.00	0.02
Employee commuting	-	-	-	0.06	0.03
Upstream leased assets	0.05	0.05	0.06	0.06	0.11
Provision of sold products	-	-	-	-	-
Use of sold products	2.14	2.10	1.55	1.73	1.10
End-of-life treatment of sold products	-	-	-	0.00	0.00
Downstream leased assets	-	-	-	-	0.09
Franchises	-	-	-	-	-
Joint ventures and Associates ^{16,17}	1.32	2.81	3.18	3.04	3.03
Total Scope 3 GHG emissions¹⁸	8.23	8.41	9.39	9.60	10.10

⁸ Following the disposal of Hungary and Ghana during the year (see Reporting criteria scope for more details) data for these entities are included for 10 months and 11 months respectively. We will amend our baseline data for both these disposals in FY24.
⁹ Categories with a 0.00 figure are those where data has been collected in accordance with our Reporting methodology. For other categories reporting was reintroduced in FY22 or FY23; information prior to this is not available; please refer to our Reporting methodology for information on our approach to reporting of these emissions.
¹⁰ Data for capital goods is reported combined with purchased goods and services from 2019 to 2022. This data is disaggregated into separate categories from 2023 onwards.
¹¹ Data for transportation and distribution is reported combined with purchased goods and services from 2019 to 2022. This data is disaggregated into separate categories from 2023 onwards.
¹² Category 15 emissions have been restated for 2019 to 2022 due to an update in calculation methodology to exclude estimated Scope 3 data in line with guidance provided in the GHG Protocol and for the correction of underlying energy data used to estimate the emissions of our associate company, Vodafone Idea.
¹³ Our shareholding in Vodafone Idea reduced from 47.6% at 31 March 2022 to 31.7% at 31 March 2023. If our shareholding had remained consistent throughout the year, this would have resulted in an additional 0.73 million tonnes CO₂e of Scope 3 emissions. 2022 and 2023 Assessed by KPMG LLP. See 'Assurance' sheet for further information on 2023 and see our 2022 ESG Addendum <https://investors.vodafone.com/uk> for information on assurance for 2022.



Emissions across our value chain

[Link to reporting methodology](#)

	2019	2020	2021	2022	2023
million tonnes CO₂e					
Total Scope 1 emissions ¹⁴	0.28	0.32	0.30	0.28	0.28
Total Scope 2 emissions (market-based method) ¹⁴	1.90	1.69	1.12	0.80	0.69
Total Scope 3 emissions	8.23	9.41	9.29	9.60	10.10
Total Scope 1, 2 and 3 GHG emissions	10.41	11.42	10.81	10.68	11.06

¹⁴ 2023 and 2022 Assured by KPMG LLP. See 'Assurance' sheet for further information on 2023 and see our 2022 ESG Addendum investors.vodafone.com/leg for information on assurance for 2022.

	2019	2020	2021	2022	2023
Percentages (%)					
Total Scope 1 emissions ¹⁴	3%	3%	3%	3%	3%
Total Scope 2 emissions (market-based method) ¹⁴	18%	15%	10%	7%	6%
Total Scope 3 emissions ¹⁴	79%	82%	87%	90%	91%
of which: Purchased goods and services	49%	39%	42%	41%	27%
of which: Joint ventures and Associates	16%	30%	34%	32%	30%
of which: Use of sold products	26%	22%	17%	18%	11%
of which: Other	9%	8%	7%	10%	32%

¹⁴ The contributions of Scope 1, 2 and 3 emissions as a percentage of the total GHG emissions of the Group has been recalculated, following the changes applied to underlying data as explained in the tables above.

Carbon enablement

[Link to reporting methodology](#)

	2019	2020	2021	2022	2023
Total emissions avoided as a consequence of green digital solutions (million tonnes CO₂e)	5.9	6.9	6.2	15.6	24.9
Scope 1 and Scope 2 emissions (market-based method) (million tonnes of CO ₂ e) ¹⁵	2.18	2.01	1.42	1.08	0.97
Ratio of GHG emissions savings for customers to our own emissions GHG footprint (Enablement ratio)	2.7 x	3.4 x	4.4 x	14.5 x	25.7 x

¹⁵ Changes to previously reported data relates to the correction or inclusion of data points in line with our reporting methodology.

¹⁶ 2023 and 2022 Assured by KPMG LLP. See 'Assurance' sheet for further information on 2023 and see our 2022 ESG Addendum investors.vodafone.com/leg for information on assurance for 2022.

