Environmental Data

GHG Emissions – Absolute

	Unit	2022	2021	2020	2019	2018
Total GHG direct, Scope 1[1,2]	mn t CO_2 equivalent	11.7	13.5	10.9	10.8	11.2
CO_2	mn t	10.9	12.4	9.9	9.4	10.0
CH_4	t	20,019	32,193	41,906	57,405	47,110
N_2O	t	938	818	217	74	57
Total GHG indirect, Scope 2[3]	mn t CO_2 equivalent	0.9	1.1	0.3	0.4	0.4
Total GHG indirect, Scope 3[4,5]	mn t CO_2 equivalent	132.8	156.4	117.7	126.1	108.0
GHG emissions from processing of sold products (Scope 3, category 10)	mn t CO_2 equivalent	9.6	10.4	9.4	9.8	7.7
of which from oil for non-energy use	mn t CO_2 equivalent	5.5	5.4	7.1	7.8	6.2
of which from gas for non-energy use	mn t CO_2 equivalent	1.6	2.6	2.3	2.0	1.5
of which from chemicals	mn t CO_2 equivalent	2.4	2.4	0.01	0.01	0.01
GHG emissions from use of sold products (Scope 3, category 11)	mn t CO_2 equivalent	99.4	119.5	102.8	110.0	92.6
of which from oil to energy	mn t CO_2 equivalent	57.2	58.4	54.8	68.2	58.2
of which from gas to energy	mn t CO_2 equivalent	36.5	54.5	48.0	41.8	34.4
of which from chemicals	mn t CO_2 equivalent	5.7	6.6	n.r.	n.r.	n.r.
GHG emissions from purchased goods and services (Scope 3, category 1)	mn t CO_2 equivalent	11.3	13.0	5.3	6.1	5.7
GHG emissions from capital goods (Scope 3, category 2)	mn t CO_2 equivalent	0.7	0.5	0.2	0.2	0.2
GHG emissions from fuel- and energy-related activities not included in Scope 1 or 2 (Scope 3, category 3)	mn t CO_2 equivalent	0.4	0.5	n.r.	n.r.	n.r.
GHG emissions from waste generated in operations (Scope 3, category 5)	mn t CO_2 equivalent	0.3	0.3	n.r.	n.r.	n.r.

	Unit	2022	2021	2020	2019	2018
GHG emissions from end-of-life treatment of sold products (Scope 3, category 12)	mn t CO_2 equivalent	11.1	12.1	n.r.	n.r.	n.r.
Biogenic CO_2 emissions	mn t CO_2 equivalent	1.50	1.55	1.44	1.53	1.30

[1] Scope 1 refers to direct emissions from operations that are owned or controlled by the organization. We use emission factors from different sources, e.g., IPCC, API GHG Compendium, etc. Since 2016, OMV has been applying global warming potentials of the IPCC Fourth Assessment Report (AR4 – 100 years).

[2] Data for 2018, 2019, 2020, and 2021 restated. In one of our assets at OMV Petrom, there was an incorrect classification of flared and vented volumes. In addition, in 2021, we corrected a reporting error in our Nitro business. CO_2e accordingly decreased by 3.1% in 2021, and increased by 1.8% in 2020, by 1.7% in 2019, and by 0.5% in 2018. CO_2 accordingly decreased by 3.7% in 2021, and increased by 0.3% in 2020, by 0.3% in 2019, and by 0.1% in 2018. CH_4 accordingly increased by 5% in 2021, by 27% in 2020, by 16% in 2019, and by 5% in 2018.

[3] Scope 2 refers to indirect emissions resulting from the generation of purchased or acquired electricity, heating, cooling, or steam. We use emission factors from different sources, e.g., national authorities, supplier-specific emission factors, etc. The data in the table refers to the market-based approach. Location-based is 0.9 mn t.

[4] Scope 3 refers to other indirect emissions that occur outside the organization, including both Upstream and Downstream emissions. We use emission factors from different sources, e.g., IPCC, PlasticsEurope, DBEIS, etc. The data includes Scope 3 emissions from the use and processing of sold products. Pure "trading margin" sales as well as intracompany sales are excluded. Since 2015, Scope 3 emissions from purchased goods and services and capital goods are included. Since 2018, net import of refinery feedstock is included.

[5] Borealis Scope 3 category 15 emissions are accounted for as 21.6 mn t CO_2 equivalent, but not yet included in the OMV's Group consolidation.

n.r. = not reported

GHG Emissions – Targets 2030[1]

	Unit	2022	2021	2020	2019 (baseline)
Total GHG direct, Scope 1	mn t CO_2	11.7	13.5	13.8	14.9
of which from energy business segments	mn t CO_2	7.2	8.4	8.7	9.2
of which from non-energy business segments	mn t CO_2	4.5	5.1	5.1	5.6
Total GHG indirect, Scope 2	mn t CO_2	0.9	1.1	1.3	1.5
of which from energy business segments	mn t CO_2	0.2	0.2	0.2	0.3
of which from non-energy business segments	mn t CO_2	0.8	0.9	1.1	1.2
Total GHG indirect, Scope 3[2]	mn t CO_2	113.5	125.9	115.8	123.6
of which from energy business segments	mn t CO_2	91.4	101.5	91.4	97.9
of which from non-energy business segments	mn t CO_2	22.0	24.4	24.4	25.7
Carbon intensity of energy supply[3]	g CO_2/MJ	67.5	67.5	68.2	69.8
Methane intensity[4]	%	0.4	0.6	0.8	1.3

[1] For the purpose of setting GHG emissions reduction targets, a meaningful and consistent comparison over time requires the setting of a performance date (base year) with which to compare current emissions. For its 2030 and 2040 GHG reduction targets, the OMV Group has set 2019 as the base year including full-year Scope 1 to 3 emissions data of Borealis. In accordance with best practice guidance (i.e., GHG Protocol), when a company undergoes significant structural changes due to acquisitions, divestments, and mergers, GHG data shall be recalculated for all years dating back to the base year. OMV has set a threshold that a significant change means that the cumulative effect of mergers/acquisitions/divestments represents a higher effect than 5% on the OMV Group's base year absolute GHG emissions. Accordingly, this table shows the recalculated emissions for the categories of emissions relevant for the 2030 targets. The previous table, GHG Emissions – Absolute, does not have recalculated data to give as transparent a picture as possible.

[2] The following Scope 3 categories are included: Category 11: Use of Sold Products for OMV's energy and Nitro segments, Category 1: Purchased Goods (feedstocks) from OMV's non-energy business segment, and Category 12: End-of-Life of Sold Products for OMV's non-energy segment.

[3] The carbon intensity of energy supply is measured by assessing the intensity of their Scope 1 and 2 emissions plus Scope 3 emissions (in g CO_2) from the use of sold energy products, against the total energy value of all externally sold energy products (in MJ) (excluding purely traded volumes).

[4] The methane intensity refers to the volume of methane emissions from OMV's operated E&P oil and gas assets as a percentage of the volume of the total gas that goes to market from those operations. The approach is aligned with the Oil and Gas Climate Initiative's (OGCI) methane intensity. Unlike the other figures in this table, the methane intensity is not subject to a baseline recalculation, as the target is a fixed value and the target achievement is not compared to the base year. In case of mergers and aquisitions, new operations will be expected to endorse the existing target.

GHG Emissions – Targets 2025[1]

	Unit	2022	2021	2020	2019	2018	2010 (baseline)
GHG intensity of operations	OMV Group Carbon Intensity Index[2]	83	82	82	80	87	100
Reduction achieved vs. 2010	%	17	18	18	20	13	n.a.
GHG intensity of product portfolio	mn t GHG per mn t oil equivalent	2.6	2.5	2.5	2.5	2.5	2.6
Achieve at least 1 mn t of CO_2 reductions in 2020–2025 from operated assets (cumulative reductions) (Scope 1)	t CO_2 equivalent	644,946	532,907	77,900	n.a.	n.a.	n.a.
thereof from concrete reduction initiatives	t CO_2 equivalent	269,412	157,374	77,900	n.a.	n.a.	n.a.
thereof from divestments	t CO_2 equivalent	375,533	375,533	0	n.a.	n.a.	n.a.

[1] Excluding Borealis

[2] Direct CO_2 equivalent emissions produced to generate a certain business output using the following business-specific metric – Upstream: t CO_2 equivalent/toe produced, refineries: t CO_2 equivalent/t throughput (crude and semi-finished products without blended volumes), power: t CO_2 equivalent/MWh produced – consolidated into an OMV Group Carbon Intensity Index, based on weighted average of the business segments' carbon intensity. The Carbon Intensity Index was developed in 2018.

n.a. = not applicable

Other Air Emissions

	Unit	2022	2021	2020	2019	2018
SO_2	t	2,878	2,544	2,720	2,627	3,090
NO_x	t	9,052	10,302	7,701	7,441	11,231
NMVOC	t	12,278	12,259	10,898	11,011	9,400
Particulate emissions	t	606	635	172	124	138
Ozone-depleting substances	t	0.1	0.2	0.5	0.4	0.4

Flaring and Venting

	Unit	2022	2021	2020	2019	2018
Hydrocarbons flared[1]	t	241,038	360,138	378,431	417,384	231,199
Hydrocarbons vented[2]	t	10,550	16,499	28,122	43,149	39,991

[1] Data restated. In one of our assets at OMV Petrom, there was an incorrect classification of flared and vented volumes. Hydrocarbons flared accordingly decreased by 0.5% in 2021, by 2.6% in 2020, by 2.1% in 2019, and by 1.1% in 2018.

[2] Data restated. In one of our assets at OMV Petrom, there was an incorrect classification of flared and vented volumes. Hydrocarbons vented accordingly increased by 12% in 2021, by 57% in 2020, by 26% in 2019, and by 7% in 2018.

Energy

	Unit	2022	2021	2020	2019	2018
Energy consumption inside the organization						
Total energy consumption[1,6]	PJ	163.2	176.2	131.1	117.4	127.4
thereof fuel consumption within the organization	PJ	146.1	176.6	141.4	128.6	152.5
thereof gaseous fuels[2]	PJ	101.1	130.1	117.9	n.r.	n.r.
thereof liquid fuels[3]	PJ	38.8	39.5	16.3	n.r.	n.r.
thereof solid fuels[4]	PJ	6.2	7.0	7.3	n.r.	n.r.
thereof self-generated non-fuel renewable energy for own consumption	PJ	0.084	0.052	0.0003	n.r.	n.r.
thereof purchased electricity consumption[5,6]	PJ	13.2	16.3	8.6	2.9	3.5
thereof from renewable sources	PJ	3.9	4.0	2.6	0.7	1.4
thereof heating	PJ	0.01	0.01	0.09	n.r.	n.r.
thereof from renewable sources	PJ	0.006	0.008	0.006	n.r.	n.r.
thereof cooling	PJ	0.0	0.0	0.0	n.r.	n.r.
thereof from renewable sources	PJ	0.0	0.0	0.0	n.r.	n.r.
thereof steam	PJ	3.9	4.3	0.8	n.r.	n.r.
thereof from renewable sources	PJ	0.0	0.0	0.0	n.r.	n.r.
Energy consumption outside the organization[7]						
Total energy sold	PJ	1,503	1,829	1,667	1,748	1,539
thereof from non-renewable sources	PJ	1,482	1,807	1,647	1,726	1,520
thereof fuels sold	PJ	1,433	1,770	1,604	1,678	1,475
thereof electricity sold	PJ	46.1	33.8	40.0	45.1	45.0
thereof heating sold	PJ	2.2	2.7	2.7	2.8	0.0
thereof cooling sold	PJ	0.0	0.0	0.0	0.0	0.0
thereof steam sold	PJ	0.0	0.4	0.4	0.4	0.0
thereof from renewable sources	PJ	21.3	21.9	20.3	21.6	18.4
Total energy consumption (inside the organization) per net sales revenues	PJ/EUR mn	0.003	0.005	0.008	0.005	0.006

[1] Refers to the total energy used for operations based on site calculations with specific data, conversion factors, and methodologies.

[2] Refers to natural gas, residual gas, and other gaseous fuels

[3] Refers to diesel, heating oil, and residue/waste oil, as well as other liquid fuels

[4] Refers to FCC coke and other solid fuels. OMV does not consume any coal.

[5] Includes only electricity purchased and consumed. Electricity consumed from own generation is included in fuel consumption or in self-generated non-fuel renewable energy for own consumption.

[6] 2021 data restated. The centralization of 2021 electricity purchased invoices in OPM Filling Stations Romania was revised. The total energy consumption decreased by 0.17% and thereof purchased electricity consumption decreased by 1.8%.

[7] Refers to energy sales volumes. We use conversion factors from different sources, e.g., IPCC, etc.

n.r. = not reported

Water and Wastewater

	Unit	2022	2021	2020	2019	2018
Water withdrawal						
Water withdrawn[1,2]	megaliters	731,894	827,558	224,971	103,637	100,381
thereof groundwater	megaliters	22,192	34,903	25,443	24,117	23,964
thereof freshwater (≤1,000 mg/l total dissolved solids)	megaliters	16,244	34,805	22,996	23,836	23,716
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	5,948	98	262	281	247
thereof surface water[2]	megaliters	261,557	294,617	60,778	14,054	14,955
thereof freshwater (≤1,000 mg/l total dissolved solids)[2,3]	megaliters	261,557	294,617	14,539	14,054	14,955
thereof once-through cooling water	megaliters	205,971	276,359	47,124	0	0
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	0	0	0	0	0
thereof water from public supply systems	megaliters	2,181	3,825	1,755	1,360	1,477
thereof freshwater (≤1,000 mg/l total dissolved solids)[3]	megaliters	2,181	3,825	1,092	1,360	1,477
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	0	0	0	0	0
thereof seawater	megaliters	393,372	436,337	75,718	920	586
thereof once-through cooling water	megaliters	396,926	435,493	71,784	0	280,963
thereof produced water	megaliters	52,591	57,875	61,256	63,186	59,400
Water withdrawn from all areas with water stress	megaliters	2,125	3,550	1,479	1,230	1,775
thereof groundwater	megaliters	1,436	2,179	491	399	645
thereof freshwater (≤1,000 mg/l total dissolved solids)[3]	megaliters	321	325	229	118	398
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	1,115	98	262	281	247
thereof surface water[3]	megaliters	0	0	0	0	0
thereof freshwater (≤1,000 mg/l total dissolved solids)[3]	megaliters	0	0	0	0	0
thereof other water (>1,000 mg/l mg/l total dissolved solids)[3]	megaliters	0	0	0	0	0
thereof water from public supply systems	megaliters	135	712	54	67	82
thereof freshwater (≤1,000 mg/l total dissolved solids)[3]	megaliters	135	24	54	67	82
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	0	0	0	0	0
thereof seawater[3]	megaliters	0	0	0	0	0
thereof produced water	megaliters	555	659	607	764	1,048
Water discharge						
Water discharged by destination	megaliters	661,962	758,033	25,464	n.r.	n.r.
thereof to groundwater	megaliters	351	846	0	n.r.	n.r.
thereof freshwater (≤1,000 mg/l total dissolved solids)	megaliters	0	0	0	n.r.	n.r.
thereof other water (>1,000 mg/l total dissolved solids)	megaliters	351	846	0	n.r.	n.r.
thereof to surface water	megaliters	226,157	303,325	16,474	n.r.	n.r.
thereof freshwater (≤1,000 mg/l total dissolved solids)	megaliters	221,915	298,467	10,913	n.r.	n.r.

	Unit	2022	2021	2020	2019	2018
thereof once-through cooling water	megaliters	205,971	276,363	47,124	n.r.	n.r.
thereof other water (>1,000 mg/l total dissolved solids)	megaliters	4,242	4,857	5,561	n.r.	n.r.
thereof to seawater	megaliters	397,573	438,920	4,581	n.r.	n.r.
thereof once-through cooling water	megaliters	396,926	435,901	71,784	n.r.	n.r.
thereof to third party	megaliters	37,870	14,937	4,409	n.r.	n.r.
thereof to others	megaliters	11	5	n.r.	n.r.	n.r.
Water discharged by destination to all areas with water stress	megaliters	1,376	2,467	61	n.r.	n.r.
thereof to groundwater	megaliters	351	846	0	n.r.	n.r.
thereof freshwater (≤1,000 mg/l total dissolved solids)[3]	megaliters	0	0	0	n.r.	n.r.
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	351	0	0	n.r.	n.r.
thereof to surface water	megaliters	506	938	0	n.r.	n.r.
thereof freshwater (≤1,000 mg/l total dissolved solids)[3]	megaliters	506	0	0	n.r.	n.r.
thereof other water (>1,000 mg/l total dissolved solids)[3]	megaliters	0	0	0	n.r.	n.r.
thereof to seawater	megaliters	0	0	0	n.r.	n.r.
thereof to third party	megaliters	508	678	61	n.r.	n.r.
thereof to others[3]	megaliters	11	5	n.r.	n.r.	n.r.
Water discharge – quality						
Hydrocarbons (oil) discharged	t	2	6	13	n.r.	n.r.
Water consumption[4]						
Water consumed[5]	megaliters	71,086	70,831	75,685	74,924	75,135
Water consumed in all areas with water stress[5]	megaliters	1,104	1,140	1,131	1,158	1,691
Water reuse						
Water recycled and reused	megaliters	315,831	319,618	315,327	251,959	7,041
Produced water						
Produced water generated	megaliters	52,875	57,875	61,256	63,186	59,400
Produced water injected	megaliters	49,567	52,325	n.r.	n.r.	n.r.
Produced water discharged	megaliters	678	3,060	n.r.	n.r.	n.r.

[1] The increase in the years 2022 and 2021 as compared to 2020 is due to the inclusion of Borealis. At Borealis, most of the water that is withdrawn is used for once-through cooling. Around two-thirds is brackish water. The cooling water that is discharged is of the same quality and only has a very slightly elevated temperature.

[2] 2021 data restated. Some surface water withdrawal was missing in the Petrobrazi refinery data. Water withdrawn accordingly increased by 0.04%, surface water withdrawn (all freshwater) increased by 0.12%, and water consumption increased by 0.49%.

[3] Borealis figures are included in the total water withdrawal, water withdrawal from areas with water stress, water discharge, water discharged to areas with water stress, and water consumption, but Borealis figures are not available at a detailed level.

[4] Water consumption is calculated as water withdrawal minus water discharge. The figures above might not balance as other types of water, such as rainwater, are usually not included in water withdrawal.

[5] 2020 data restated. A change in the reported figure for OMV Petrom's water consumption is due to updating the calculation formula to include the produced water, as well as to correcting a visualization error for this specific data. Group-level water consumption accordingly increased by 15.8% and water consumption in areas with water stress increased by 74.8%.

n.r. = not reported

Waste

	Unit	2022	2021	2020	2019	2018
Total waste[1]	t	865,532	799,048	634,885	633,722	583,831
thereof non-hazardous waste	t	525,848	431,420	241,221	323,268	315,219
thereof non-hazardous waste to landfill	t	133,932	106,494	108,792	n.r.	n.r.
thereof non-hazardous waste for recycling	t	45,513	48,416	21,690	n.r.	n.r.
thereof non-hazardous waste for incineration (with energy recovery)	t	15,060	n.r.	n.r.	n.r.	n.r.
thereof non-hazardous waste for incineration (without energy recovery)	t	217	n.r.	n.r.	n.r.	n.r.
thereof non-hazardous waste for other disposal options	t	37,391	38,399	19,130	n.r.	n.r.
thereof other (preparation for reuse and other recovery options)	t	293,735	211,853	85,589	n.r.	n.r.
thereof hazardous waste	t	339,683	367,627	393,664	310,453	268,611
thereof hazardous waste to landfill	t	7,660	6,294	7,995	n.r.	n.r.
thereof hazardous waste for recycling	t	204,388	277,074	308,580	n.r.	n.r.
thereof hazardous waste for incineration (with energy recovery)	t	21,426	n.r.	n.r.	n.r.	n.r.
thereof hazardous waste for incineration (without energy recovery)	t	1,451	n.r.	n.r.	n.r.	n.r.
thereof hazardous waste for other disposal options	t	102,525	59,704	48,222	n.r.	n.r.
thereof transboundary movement of hazardous waste (Basel convention)[2]	t	781	1,221	672	20	0
thereof other (preparation for reuse and other recovery options)[2]	t	1,451	1,421	8,129	n.r.	n.r.
Waste directed to disposal[3]	t	319,662	259,063	204,120	308,523	360,357
Waste diverted from disposal[3]	t	545,869	539,985	430,765	n.r.	n.r.
Waste recovery or recycling rate	%	63	68	68	51	38

[1] Total waste amounts including those from one-time projects

[2] 2021 and 2020 data restated. Due to a layout error, the values for transboundary movement of hazardous waste (Basel convention) and other (preparation for reuse and other recovery options) were exchanged in 2020 and 2021.

[3] 2021 data restated. Due to a layout error, the values for waste directed to disposal and waste diverted from disposal were exchanged in 2021. The waste recovery or recycling rate of 68% in 2021 remained unaffected.

n.r. = not reported

Spills

	Unit	2022	2021	2020	2019	2018
Spills	number	2,003	2,232	2,390	2,047	2,184
of which major (i.e., severity levels 3 to 5)	number	2	3	0	1	2
Spills volume released	liters	223,462	80,976	41,355	56,641	36,874

Environmental Expenditures[1]

	Unit	2022	2021	2020	2019	2018
Environmental protection expenditures, excluding depreciation	EUR mn	443	240	135	220	196
Environmental investments for assets put into operation	EUR mn	151	150	84	98	134

[1] Excluding Borealis