Environment and sustainability

Energy consumption by business group changed as follows between 2021 and 2022:

(in MWh)	2022	2022 Estimated store scope ^(b)	2021	2022 pro forma ^(a)	Change ^{(a) (c)} (as %)
Wines and Spirits	245,961	-	233,665	246,699	5
Fashion and Leather Goods	409,896	85,000	398,686	405,767	2
Perfumes and Cosmetics	99,760	4,232	99,267	96,504	(3)
Watches and Jewelry	102,060	34,498	46,869	44,162	(6)
Selective Retailing	338,092	60,478	308,582	317,150	3
Other activities	150,824	378	111,075	117,231	6
Total	1,346,593	184,586	1,198,144	1,227,513	2

⁽a) Value and change at constant scope.

Energy consumption by business group and by energy source was as follows in 2022:

(in MWh)	Electricity	Natural gas, butane and propane	Fuel oil and heavy fuel oil	Steam	Ice water	Renewable energies	% renewable energies ^(a)
Wines and Spirits	10,871	60,885	34,622	-	-	139,583	57
Fashion and Leather Goods	152,248	105,322	11,399	2,804	3,391	134,732	33
Perfumes and Cosmetics	10,879	28,193	2,731	429	-	57,528	58
Watches and Jewelry	6,065	5,040	381	1,334	333	88,907	87
Selective Retailing	151,433	15,778	1,053	5,761	7,310	156,757	46
Other activities	49,780	32,342	10,816	4,329	3,761	49,796	33
Total	381,276	247,560	61,002	14,657	14,795	627,303	47

⁽a) Not including estimated data for stores not covered by reporting.

5.2.2 Greenhouse gas emissions

5.2.2.1 Direct emissions (Scope 1) and indirect emissions (Scope 2)

Scope I emissions are those generated mainly through the combustion of fuel oil and natural gas. Scope 2 emissions are those generated indirectly from energy use, mainly electricity used in stores and at the Group's production sites. In 2022, the emissions factors were updated on the basis of the most recent databases (IEA, Ecoinvent, etc.).

Energy-related CO₂ emissions by business group changed as follows between 2021 and 2022:

(in metric tons of CO_2 equivalent)	CO ₂	Of which:		CO ₂ emissions	, CO ₂	, CO ₂	Change (a) (b) (d)
	emissions — in 2022 ^(e)	Direct CO ₂ emissions	Indirect CO ₂ emissions	in 2022 estimated store scope ^(c)	emissions in 2021	emissions in 2022 pro forma(a)	(as %)
Wines and Spirits	25,939	21,743	4,196	<u>-</u>	34,470	26,111	(24)
Fashion and Leather Goods	97,875	24,731	73,145	33,154	107,301	93,677	(13)
Perfumes and Cosmetics	12,696	<i>6,47</i> 5	6,221	2,449	14,285	11,140	(22)
Watches and Jewelry	7,779	1,137	6,642	13,461	8,965	7,071	(21)
Selective Retailing	85,134	3,504	81,630	22,835	96,315	81,650	(15)
Other activities -	28,020	9,803	18,217	75	28,842	27,989	(3)
Total	257,444	67,393	190,051	71,973	290,177	247,638	(15)

⁽a) Value and change at constant scope.

⁽b) Estimated power consumption by stores not covered by reporting (27% of total sales floor area).

⁽c) Excludes estimated store power consumption.

⁽b) Update of emissions factors.

⁽c) CO₂ emissions by stores not covered by reporting (27% of total sales floor area).

⁽d) Excludes estimated store power consumption.

⁽e) This figure does not include estimated emissions generated by stores in 2021.

5.2.2.2 Scope 3 emissions

In 2022, LVMH enlisted the services of an external firm to assess the carbon footprint of its entire value chain based on 2021 data. The 2019 baseline was revised to take into account additional emissions, in particular relating to fixed assets; this revision was approved by SBTi. The total carbon footprint thus stood at 6.1 million metric tons of CO₂ equivalent (tCO₂e), including 5.7 million metric tons from Scope 3 emissions, broken down as follows:

more than 50% of Scope 3 emissions are generated by the sourcing of raw materials (products and packaging). The main sources of greenhouse gas emissions are the production of luxury wool fibers (599,100 tCO₂e); leather (357,000 tCO₂e); grapes, wines and spirits (94,960 tCO₂e, which includes vineyards belonging to the Group's Maisons as well as independent grape suppliers); glass for packaging (97,800 tCO₂e); and cotton (187,000 tCO₂e);

- inbound and outbound transport of components and finished products is the second-largest area, generating 14% of Scope 3 emissions:
- employees' commutes were assessed using average figures by geographic region and accounted for 3% of Scope 3 emissions.

Greenhouse gas emissions generated by inbound transport (transport of raw materials and components toward production sites; only the main components and raw materials are taken into account) broke down as follows in 2022:

(in metric tons of CO ₂ equivalent)	Road	Air	Ship	Rail	Liquid natural gas	Total
Wines and Spirits	28,114	258	720	8	67	29,167
Fashion and Leather Goods	10,586	6,615	490	-	18	17,709
Perfumes and Cosmetics	1,322	43,558	424	-	29	45,333
Watches and Jewelry	188	1,752	-	-	-	1,940
Selective Retailing	-	-	-	-	-	-
Other activities	5	16	-	-	-	21
Total	40,215	52,199	1,634	8	114	94,170

Greenhouse gas emissions generated by outbound transport (transport of finished products from production sites to distribution centers) broke down as follows in 2022:

(in metric tons of CO ₂ equivalent)	Road	Rail	Air	Ship	Inland barge	Electric vehicle	Liquid natural gas	Total
Wines and Spirits	28,120	573	6,488	21,209	=	3	340	56,733
Fashion and Leather Goods	6,088	12	202,566	2,091	-	6	1,121	211,884
Perfumes and Cosmetics	3,382	=	177,103	1,512	-	-	143	182,140
Watches and Jewelry	516	-	23,122	139	-	-	-	23,777
Selective Retailing	4,524	-	2,601	77	-	42	9	7,253
Other activities	185	-	-	-	-	-	-	185
Total	42,815	585	411,880	25,028	-	51	1,613	481,972

The following Maisons did not report any data for transportrelated indicators: Rimowa, DFS, Royal Van Lent, Pucci, Thélios and Château Cheval Blanc. Furthermore, the reporting process in respect of inbound transport is still under development at some Maisons, with the result that inbound transport indicators are subject to a high degree of uncertainty.

Louis Vuitton is working to reduce its dependence on air freight and contributed to the aviation sector's transition, by increasing the use of sustainable aviation fuel (SAF) and by supporting its development. This biofuel is made exclusively from used cooking oil, with the potential to reduce CO₂ emissions by 80% compared with fossil kerosene. In 2022, Louis Vuitton was one of the leading contributors to SAF development worldwide, due to its strong advocacy in this area. The Maison's CO₂ emissions due to air freight have been reduced by 20%.