EMBL Sustainability Data Report
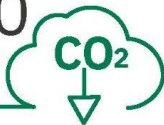
2024

2024 Highlights

-23%
in energy related
carbon footprint*

-32%
in energy intensity*

10,800
tonnes
CO₂
Absolute carbon
emission reduction*

-18%
in business travel emissions*
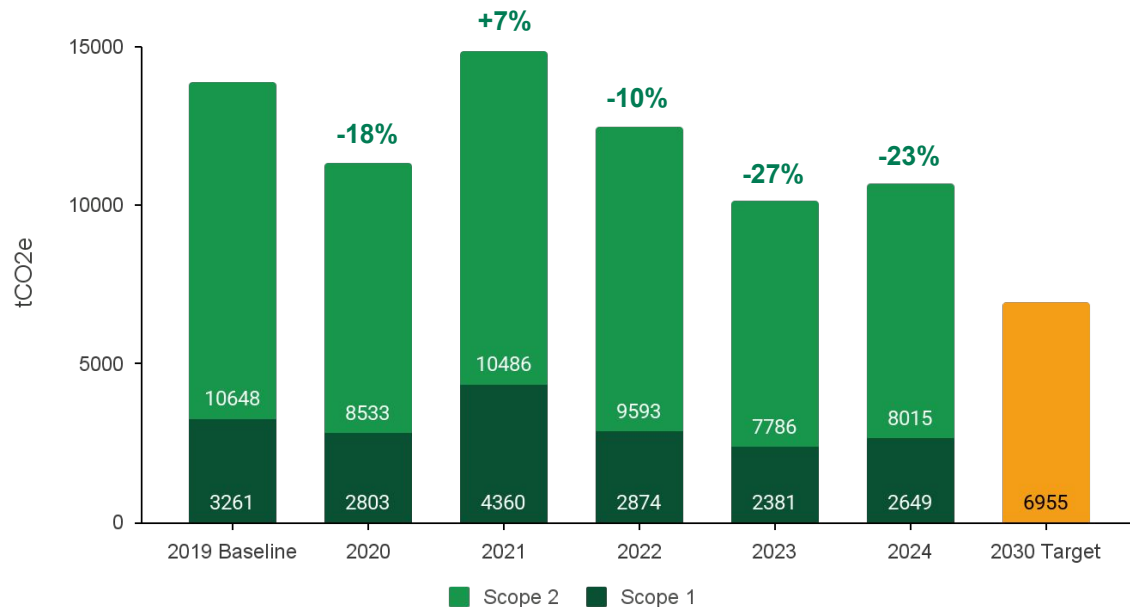
+295%
in recycling*

100%
of labs taking part in LEAF

*compared to 2019

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Scope 1 & scope 2 carbon footprint


Saving: -23%
(2024 vs 2019)

Our carbon reduction target is to reduce Scope 1 & 2 carbon emissions by 50% by 2030 against a 2019 baseline. We are on track to achieve this target.

This target was set using the Science Based Target Initiative's tool and aligns with the global ambition to limit global warming to 1.5°C above pre-industrial temperatures.

2024's emissions have been calculated using 2023 national electricity factors as 2024 factors have not been published.

Scope 1 = Direct emissions from EMBL activities
Scope 2 = Indirect emissions from purchased energy

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Emissions by site
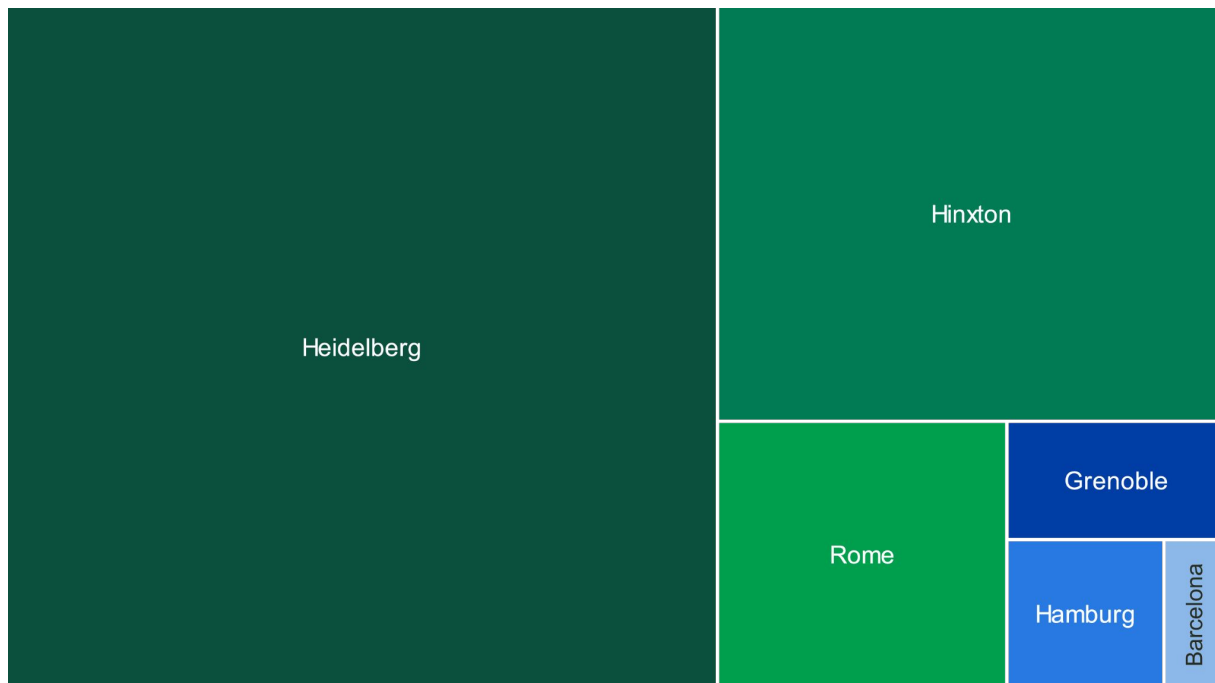
	Energy (kWh)	Carbon emissions (tCO$_2$e)	% share
Heidelberg	27.204.998	7.671	67%
Hinxton	11.811.680	2.322	20%
Rome	4.322.286	868	8%
Hamburg	1.289.864	396	3%
Grenoble	1.440.163	140	1%
Barcelona	477.917	78	1%

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Absolute carbon footprint data

		2019 (Baseline)	2020	2021	2022	2023	2024	% Change to baseline	% change to 2023
Scope 1	tCO2e	3.261	2.803	4.360	2.874	2.381	2.649	-19%	11%
Scope 2	tCO2e	10.648	8.533	10.486	9.593	7.786	8.015	-25%	3%
Scope 1 & 2	tCO2e	13.909	11.336	14.846	12.467	10.167	10.664	-23%	5%
1. Purchased goods & services	tCO2e	21.924	26.883	19.481	30.160	24.058	29.518	35%	23%
2. Capital goods	tCO2e	28.128	17.808	16.312	11.583	12.349	13.945	-50%	13%
4. Upstream transportation and distribution	tCO2e	94	99	95	163	151	358	281%	137%
6. Business travel	tCO2e	5.404	1.152	418	1.943	3.523	3.697	-32%	5%
7. Employee commuting						28	34		22%
8. Upstream leased assets	tCO2e	225	157	161	92	99	147	-35%	48%
13. Downstream leased assets					364	417	450		8%
Scope 3	tCO2e	55.775	46.099	36.468	44.305	40.625	48.149	-14%	19%
Absolute Carbon Emissions	tCO2e	69.684	57.435	51.314	56.772	50.792	58.813	-16%	16%

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Absolute carbon footprint breakdown
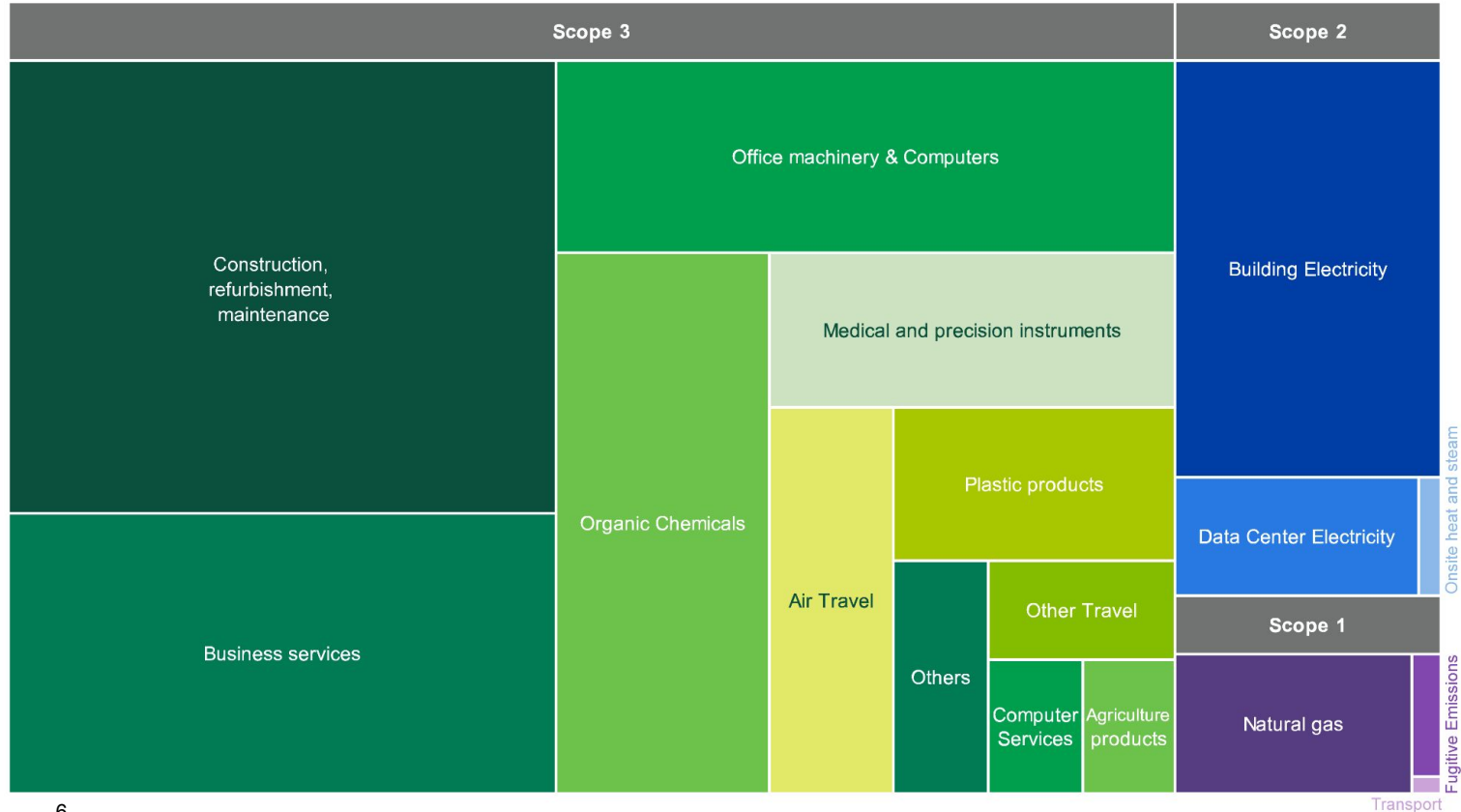
Energy Intensity

How much energy do we use per square meter of campus, number of employees or papers published?
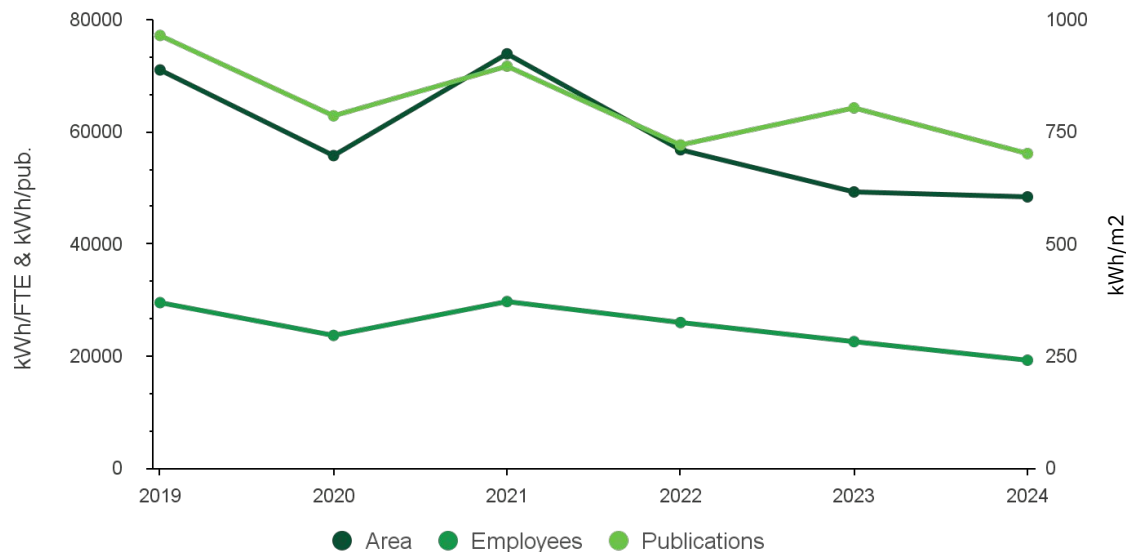
Energy intensity improved by 32%
(based on kWh per m2 of campus, 2024 vs 2019)

To account for the organisation's growth, in terms of campus size, number of personnel and number of publications, we monitor energy intensity against these three metrics. All three are on a downward trend.

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Carbon & energy intensity data

			2019	2020	2021	2022	2023	2024
	Area	m^2	51.437	51.437	51.437	57.920	58.584	62.615
	FTE	No.	1.791	1.911	1.945	1.986	1.996	1.968
	Publications	No.	685	720	806	895	701	675
Energy Reporting	Total Energy (inc. Data centers)	kWh	53.907.347	45.256.689	57.795.138	51.605.793	45.053.956	46.287.168
	Total Energy (exc. Data centers)	kWh	46.686.241	35.829.002	47.512.963	41.129.820	36.074.675	37.890.373
	Energy Intensity	kWh/m$_2$	888	697	924	710	616	605
		kWh/FTE	29.526	23.685	29.718	25.985	22.572	19.253
		kWh/pub.	77.190	62.857	71.706	57.660	64.271	56.134
Carbon Reporting	Scope 1	tCO$_2$e	3.251	2.803	4.360	2.874	2.381	2.649
	Scope 2	tCO$_2$e	10.648	8.533	10.486	9.593	7.786	8.015
	Scope 3	tCO$_2$e	55.775	46.099	36.468	44.305	40.625	48.149
	Total	tCO$_2$e	69.674	57.435	51.314	56.772	50.792	58.813
	Carbon Intensity	tCO$_2$e/m^2	1,35	1,12	1,00	0,98	0,87	0,94
		tCO$_2$e/FTE	39	30	26	29	25	30
		tCO$_2$e/pub.	102	80	64	63	72	87
Reduction previous year	Energy Intensity	%		-19%	33%	-23%	-13%	-2%
	carbon Intensity	%		-18%	-11%	11%	-10%	16%
Reduction to 2019 (baseline)	Energy Intensity	%		-22%	4%	-20%	-31%	-32%
	carbon Intensity	%		-18%	-26%	-28%	-36%	-31%

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Business travel

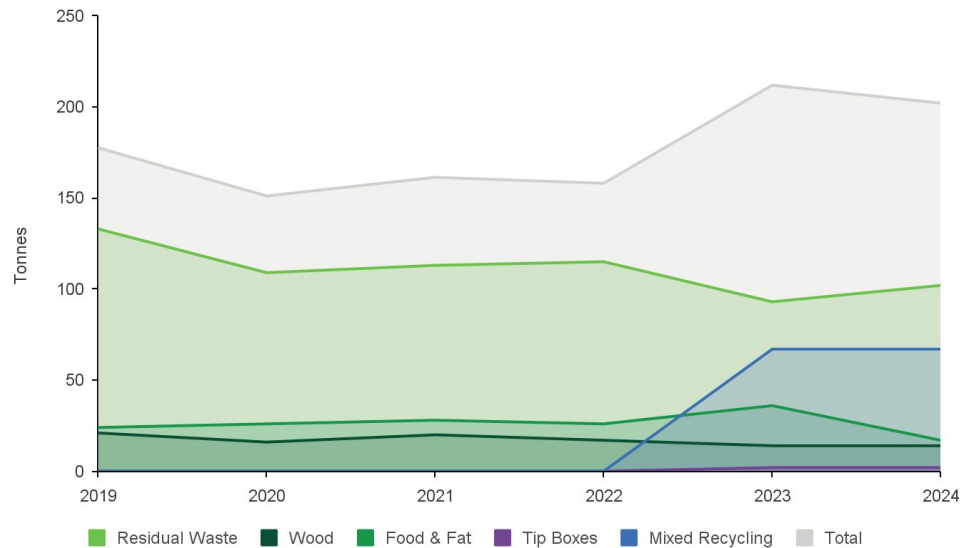Our target is a 50% reduction by 2030 against a 2019 baseline
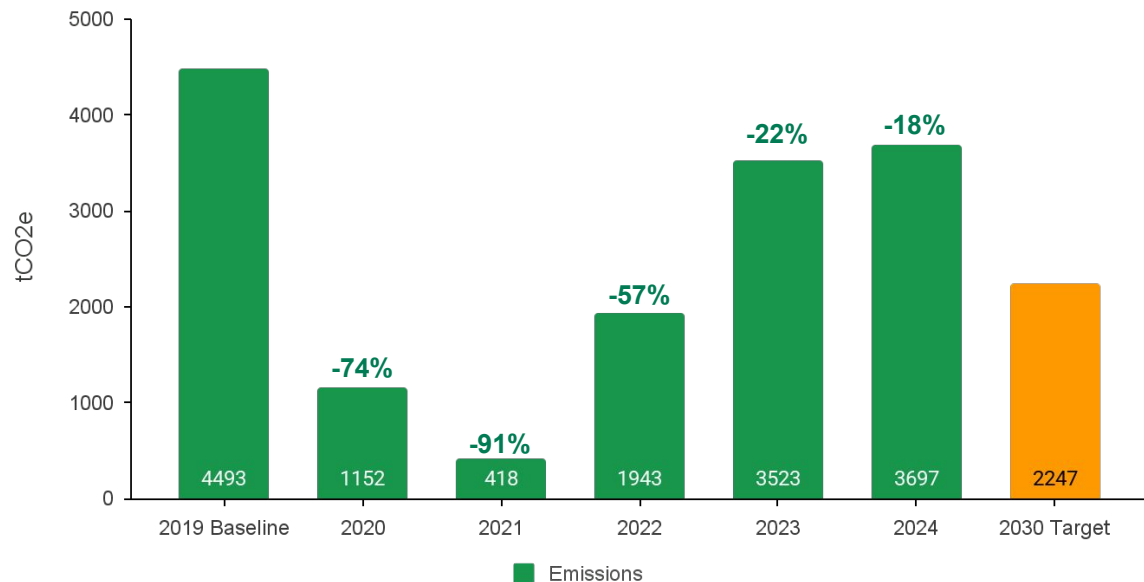
Saving: -18%
(2024 vs 2019)

The pandemic caused an almost complete stop on business travel in 2020 and 2021. Business travel has increased since the pandemic and is now only 18% below 2019's level and we are missing the reduction target.
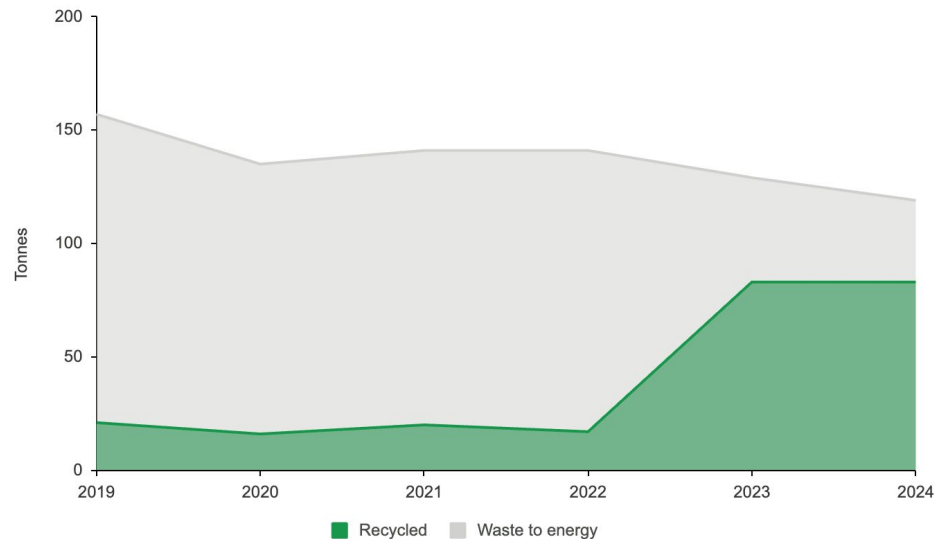
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Waste management

295% increase in recycling
(2024 vs 2019)

Waste Streams

Legend: Residual Waste | Wood | Food & Fat | Tip Boxes | Mixed Recycling | Total

Waste Disposal

Legend: Recycled | Waste to energy

10

2024 Awards

Lab Programs and Initiatives Overall Awards