Carbon Footprint Report 2022

Greenhouse gas emissions resulting from EIB Group internal operations

European Investment Bank | Group

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The power of nature is awesome. Throughout history, people have feared its storms, its floods, droughts and eruptions. At this critical time, we realise that we must instead be in tune with nature and harness its power, if we are to beat the climate change that our own actions have caused. More than half the European Investment Bank's investments are now in climate action and environmental sustainability. Our priority is to finance the green transition to renewables powered by nature, from geothermal energy to hydroelectricity and wind power. That is why we are putting these natural forces right on the covers of our major reports this year.

The EIB wishes to thank the following promoters and suppliers for the photographs illustrating this report.

For further information on the EIB's activities, please consult our website, www.eib.org.
You can also contact info@eib.org. Get our e-newsletter at www.eib.org/sign-up.

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About this Report

This report provides a detailed and comprehensive breakdown of the European Investment Bank (EIB) Group's greenhouse gas emissions arising in 2022 from the EIB Group's head office operations in the Kirchberg district of the city of Luxembourg. It also provides a comparative analysis of performance in relation to data from the previous year and from the baseline year of 2018.

This report has been prepared following a review of internal and external documentation, interviews with key EIB Group personnel and an interrogation of source data and data collection systems. All data collected and analysed in this report follow the World Resources Institute Greenhouse Gas Protocol principles of relevance, completeness, consistency, transparency and accuracy.

In line with reporting best practice, two emissions totals are disclosed — gross emissions and net emissions. The reporting primarily focuses on "net" emissions, which classify consumption from renewable energy as zero direct emissions. In reporting "gross" emissions, the report aims to compare performance for items considered as zero emissions in the EIB Group's "net" emission totals, such as electricity in buildings and for data centres. To calculate "gross" emissions, national average conversion factors — an approach that better enables benchmarking — are used, independently of the EIB Group's market initiatives (renewable energy certificates).

The EIB Group

The EIB Group is the European Union's long-term financing institution. It provides finance and technical assistance to achieve sustainable and inclusive development through two complementary entities, the European Investment Bank (EIB or Bank) and the European Investment Fund (EIF).

The **European Investment Bank** — the EU bank — is owned by the EU Member States. The EIB is the world's largest multilateral borrower and lender. The finance and assistance the EIB provides support the European Union's values and objectives as laid down in EU policies. The EIB also operates globally as a multilateral development bank following the establishment in 2022 of a dedicated arm called EIB Global.

The **European Investment Fund** is dedicated to achieving EU objectives, notably with the aim of providing better access to finance for small and medium-sized enterprises and mid-caps through the design, promotion and implementation of risk-capital and risk-sharing instruments, including support for entrepreneurship, growth, innovation, research and employment.

The EIB Group's environmental management system and climate programme

The EIB Group aims to lead by example in managing its environmental performance and disclosing the impact of its internal operations. The EIB Group implements an environmental management system in accordance with the European Union's Eco-Management and Audit Scheme (EMAS) Regulation.[1] The Eco-Management and Audit Scheme provides all EIB Group services responsible for internal operations with a robust structured framework to implement programmes and initiatives, but also to monitor, evaluate, report and continually improve its internal environmental performance in a holistic manner.

As the EU climate bank, in 2020 the EIB Group endorsed the Climate Bank Roadmap 2021-2025 to support the European Green Deal and the European Union's increased level of ambition of reducing greenhouse gas emissions to at least 55% below 1990 levels by 2030. As well as setting ambitious Paris Agreement-aligned requirements and eligibility criteria for its projects and counterparties, the EIB Group has also committed to walking the talk and leading by example with its internal operations.[2] Among others, the Climate Programme led by Group Corporate Services aims to support the objectives of the Climate Bank Roadmap 2021-2025. The Climate Programme set a carbon emissions-abatement pathway using a science-based methodology to guarantee the long-term alignment of its internal operations with a global temperature rise limit of 1.5°C. The Climate Programme's yearly action plan to reduce the EIB Group's internal environmental and carbon footprint is structured around three key areas of intervention:

- the way we travel;
- the way we work;
- the way we do business.

1. Regulation (EU) 1221/2009, updated by Regulations (EU) 2017/1505 and (EU) 2018/2026.
2. Internal operations refer to all activities related to the way in which the EIB Group is structured to facilitate various business activities, for example workspace availability, security and safety services, business travel, IT and data management. The objective can be found in the Climate Bank Roadmap 2021-2025, pages 64 and 65.

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EXECUTIVE SUMMARY

"Between 2022 and the 2018 baseline, the EIB Group reduced its annual gross emissions by over 35% and its net emissions per employee (intensity) by 40%"

	Gross emissions (tCO_2e)	Net emissions (tCO_2e)	Total employees[3]	Intensity per employee (tCO_2e)
	17 353	15 329	4 475	3.43
vs. 2021	+125%	+252%	+1.4%	+247%
vs. baseline	–36.4%	–31.6%	+14.9%	-40.4%

The EIB Group has seen carbon emissions increase in many areas since 2021. The COVID-19 pandemic led to a significant decrease in emissions during 2020 and 2021. This effect is no longer present, as restrictions ended in 2022, resulting in a 125% increase in total gross emissions in 2022 compared with 2021, and a 36.4%[4] decrease compared with the base year emissions (2018).

Despite the fact that emissions increased sharply between 2021 and 2022 owing to exceptional circumstances linked to the post-pandemic recovery, the EIB Group remains aligned with its decarbonisation trajectory and is on track to meet its reduction targets for 2025.

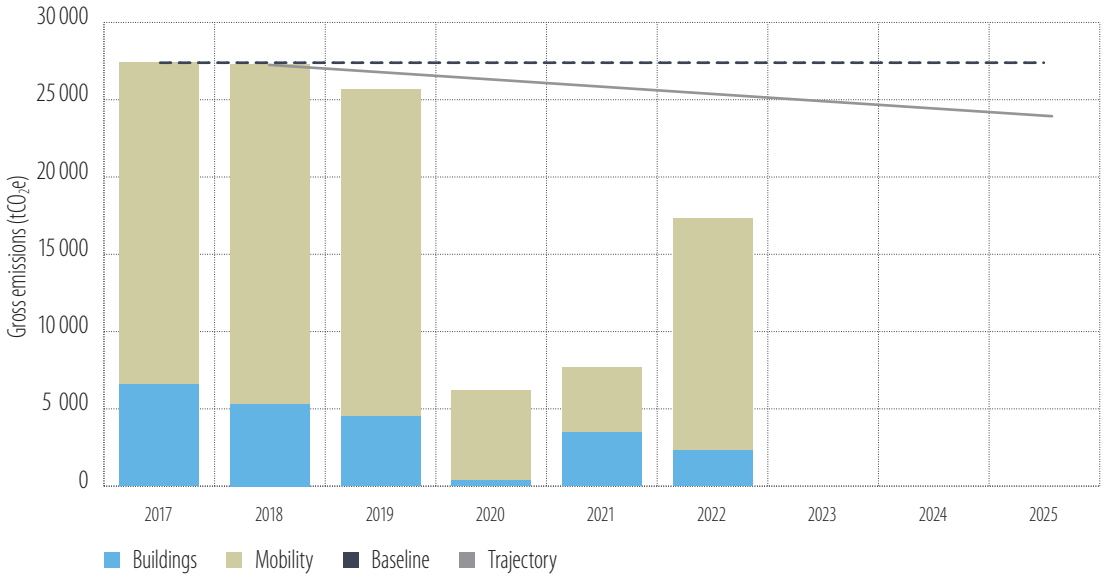

Figure 1: The EIB Group gross emissions performance and trends

3. In this report, the number of "employees" refers to the number of full-time equivalent employees.
4. Applying a strict approach to the scope of activities measured in 2018 (leaving homeworking emissions out of scope), EIBG achieved an absolute gross emission reduction of 44% compared to the base year 2018.

EIB Group actions and initiatives in 2022

The EIB Group has been reporting on its environmental impact since 2007. During this time, numerous actions and initiatives to improve disclosure and performance have been implemented. Selected initiatives undertaken in 2022 include the following:

Buildings-related energy consumption
BREEAM In-use: "excellent" certification obtained
New building design and construction (ongoing)
Adjustment of temperature settings in the office to 21°C in winter and 25°C in summer
Adjustment of air flow rates of the ventilation system to reflect real occupancy
Reduction of operating hours for heating, ventilation and air-conditioning (HVAC) systems to 12 hours during working days
Adjustment of lighting and HVAC parameters for unoccupied periods
Adjustment of temperature conditions in information technology (IT)/server rooms
Technology
Inclusion of the energy-efficiency performance of IT devices as a high-priority decision factor in the procurement process
Deployment of mobile applications to make it easier to connect, collaborate and work remotely, and deployment of Microsoft Teams for working from home
Improvement of teleconferencing tools to help alleviate travelling where possible, and introduction of Microsoft Surface Hub rooms
Decommissioning of landline phones
All electricity for third-party data centres sourced from renewable energy
Reducing consumption and waste
Donation of 1 000+ computers every year to schools and charities to ensure technology has a second life and to reduce both waste and production of more IT
Recycling of electronic equipment wherever possible, or destruction and disposal of equipment responsibly under waste and waste electrical and electronic equipment (WEEE) regulations
Implementation of a food-sharing app called Phenix for cafeteria leftovers and differences in portion sizes
Single-use dry-cleaning plastic covers replaced with reusable covers
Staff mobility
Improved bicycle parking facilities and installation and expansion of repair stations
Free "vel'OH!" card for all staff, promoting the use of bicycles instead of cars
Replacement of the fossil-fuel shuttle bus in Luxembourg with an electric shuttle bus
Creation of a shuttle bus service from Luxembourg to Brussels together with other EU institutions

2022 performance: key highlights and drivers

Owing mainly to the end of COVID-19 and the resumption of business travel, total net emissions rose by 252% in 2022.

Drivers for the increase of greenhouse gas emissions

In 2020 and 2021, the social restrictions linked to the COVID-19 pandemic significantly disrupted the daily lives of people and the business operations of organisations all over the world. This was no different for us at the EIB Group, as emergency measures were implemented to protect staff and prevent the spread of COVID-19 while maintaining business operations.

In 2022, the gradual decline in severity of the COVID-19 pandemic meant that, overall, operations increased (as people left their houses to go to the office or on business travel). However, the EIB Group continued to implement health-related restrictions: for example, until 2023, the EIB Group required employees to fly business class instead of economy class for health protection reasons.

As national and international travel restrictions gradually came to an end, business travel — which is essential to the EIB Group's activity — resumed and the EIB Group's emissions increased significantly compared with 2020 and 2021. In 2022 air travel was again the main contributor to the EIB Group's greenhouse gas emissions, constituting 66% of gross emissions.

In addition, with the end of travel restrictions, although the EIB Group partially enabled employees to continue teleworking, employees gradually began working in the office again. From the second quarter of 2022 onwards, EIB Group staff were encouraged to return to the office again for at least 60% of their working hours.

Finally, the organic growth in staff is also a driver for increased corporate greenhouse gas emissions for most sources within the reporting boundary. In 2022 the EIB Group's personnel increased by 1.4% to 4 475 employees (full-time equivalent), from 4 412 employees in 2021.

Decrease in energy consumption and emissions linked to EIB buildings and data centres

In 2022, buildings-related electricity consumption (kWh) remained stable compared with 2021 (+1%) but decreased by 14% compared with 2018 (pre-COVID-19 pandemic). This stable period between 2021 and 2022 is primarily explained by the combined effect of two factors: the resumption of office activity (while maintaining the increased ventilation requirements), resulting in an increase in energy consumption, and an energy sobriety plan following guidance from the European Commission (adopted by the government of Luxembourg) to reduce gas consumption by 15% in the winter of 2022/2023. Thus, efforts to reduce energy consumption were balanced by the expected increase in consumption due to the resumption of office activity.

The use of thermal energy decreased by 25% compared with 2021. This can be explained by the energy conservation measures applied owing to the current energy crisis.

Overall, Scope 2[5] emissions decreased by 33.4% to 2 154 tonnes of carbon dioxide equivalent (tCO_2e). This decrease can be attributed to several factors. First, the emission factor for electricity decreased between 2021 and 2022 for the same level of consumption (further details are available in Appendix II).

5. For a definition of the different scopes, see Annex I on page 27.

Second, steam consumption decreased by 25%, resulting in an overall decrease in Scope 2 emissions between 2021 and 2022.

Natural gas consumption and therefore gas-related emissions drastically decreased in 2022, as from mid-2021 the EIB Group stopped using the crèche building, which was heated with natural gas. However, building temperatures were kept at a minimal level for maintenance reasons.

Emissions from the use of third-party data centres decreased from 177 tCO_2e to 96 tCO_2e following the decommission of an old data centre in September 2021. The EIB Group had two data centres until May 2020, when a new data centre was commissioned. For over a year, the EIB Group had three data centres (during the migration period). From September 2020, the EIB Group started deploying new hardware and by May 2021 the EIB Group had completed the transfer of most services to the new data centre. Finally, the old data centre was decommissioned in September 2021. Over the course of 2022 there was an increased demand for computation resources, as staff numbers increased. However, electricity consumption linked to data centres remained lower than pre-2020 years as the new hardware is more energy-efficient (there are more systems but less electricity is consumed).

Data centre electricity is entirely sourced from hydroelectricity, so this is recorded as zero in the EIB Group's net Scope 3 emissions.

Increase in flights and commuting

All emissions related to travel increased drastically compared with the previous year, primarily owing to the end of COVID-19 travel restrictions in early 2022. In 2021, travel increased only in Q4, and then stopped again. In March 2022 business travel increased again and consistently kept growing until the summer. There was a slight decrease in the summer months, then volumes rose again and remained stable until year-end. In 2022 we also recommenced missions in locations requiring long-haul flights, hence the increased number of kilometres for business flights.

Gross emissions related to mobility increased overall by 255%, with emissions related to air travel up from 1 313 tCO_2e in 2021 to 11 385 tCO_2e in 2022. Despite this increase, the EIB Group recorded a significant decrease in its air-travel emissions from its baseline (–40% compared with 2018).

Working from home

From the start of the pandemic in March 2020 until the end of 2021, EIB Group staff were required to work from home. In 2022, EIB Group staff gradually returned to the office, which led to a decrease in homeworking emissions of 2% compared with 2021. Working from home was estimated to generate 2 156 tCO_2e in 2022, a decrease from 2 204 tCO_2e in 2021. Despite a lower rate of teleworking in 2022 than in 2021, the decrease in associated emissions was partly absorbed by an increase in staff numbers.

Reducing emissions intensity

The EIB Group's net emissions intensity per employee fell by 40% since the 2018 base year emissions.

Between 2018 and 2022 there have been several refinements to the reporting methodology.[6]

6. Further information regarding the impact of methodological changes can be found in Appendix II: Methodology.

Compensation of residual emissions

Between 2014 and 2020, the EIB Group compensated for its residual emissions annually by purchasing high-quality Voluntary Emissions Reductions (VERs) (carbon-offsetting credits) generated by the Kasigau Corridor REDD+[7] project, which prevents deforestation and forest degradation, helping to protect wildlife and promote biodiversity in 500 000 acres of highly endangered Kenyan forest.

The EIB Group remains committed to offsetting its residual greenhouse gas emissions annually. However, in the rapidly evolving voluntary carbon credit market and changing landscape in respect of quality standards, the EIB Group is reviewing its selection criteria and processes to ensure that its support to climate finance through the purchase of carbon credits remains both agile and relevant.

In 2022, the EIB Group also symbolically purchased for the first time 3 119 kilograms of sustainable aviation fuel[8] through Lufthansa Group and Compensaid. This results in an emission mitigation of at least 9 323 kilograms CO_2e in comparison to conventional fossil jet fuel based on a well-to-wheel assessment.

7. REDD+ projects are voluntary initiatives aimed at reducing greenhouse gas emissions originating from deforestation and forest degradation in developing countries.
8. This fuel has not been derived from palm oil or palm fatty acid distillates. The fuel manufacturer is certified according to ISCC EU and complies with the requirements of the Renewable Energy Directive (RED).

CARBON FOOTPRINT

Carbon emission reduction targets

The European Investment Bank (EIB) Group has been calculating and reporting on its carbon footprint since 2007. Having surpassed the European Union's target of 20-30% carbon emission reduction by 2020 from the baseline in 2007, the EIB Group has defined a target to comply and ensure a long-term alignment of its internal activities with the goals of the Paris Agreement. Therefore, **the EIB Group aims to reduce absolute gross greenhouse gas emissions by about 30%**, compared with a business-as-usual scenario in 2025. This corresponds to an absolute reduction of its annual gross greenhouse gas emissions of 12.4% by 2025 compared with the emissions reported in 2018 (base year). The EIB Group's emission reduction pathway is illustrated in Figure 1, with emissions expressed as tonnes of carbon dioxide equivalent (tCO_2e).

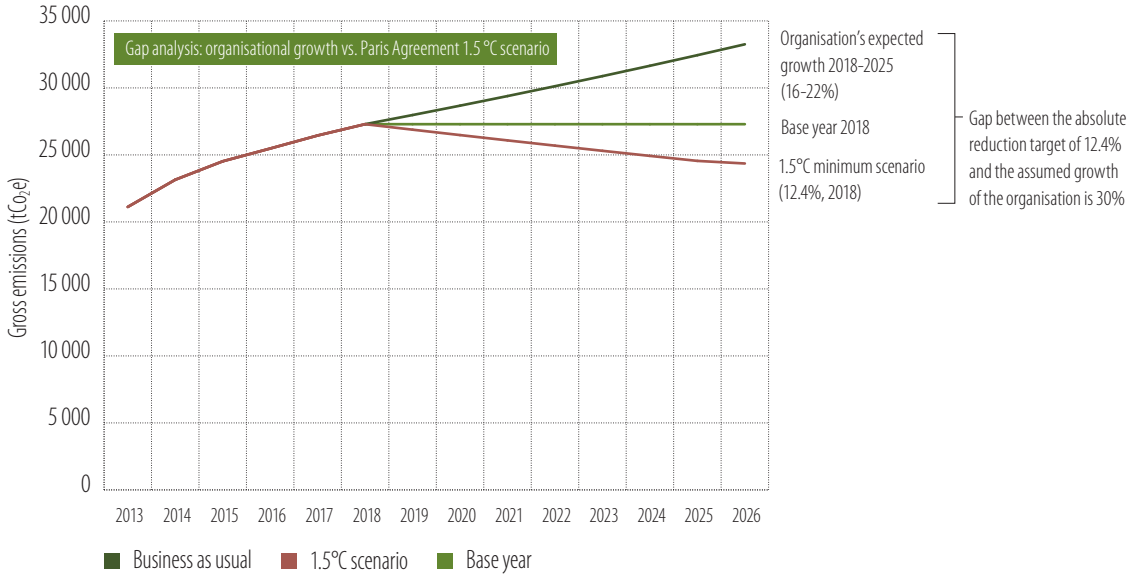

Figure 2: The EIB Group's emission reduction pathway

2022 performance summary

	Net emissions (tCO_2e)	Total employees	Net intensity per employee (tCO_2e)
	15 329	4 475	3.43
vs. 2021	+252%	+1.4%	+247%
vs. baseline	–31.6%	+14.9%	–40.4%[9]

Owing to the end of restrictions linked to COVID-19, the EIB Group's net emissions intensity increased by 247% compared with 2021 to 3.43 tCO_2e per employee in 2022.

9. Applying a strict approach to the scope of activities measured in 2018 (leaving homeworking emissions out of scope), EIBG achieved an absolute gross emission reduction of 44% compared to the base year emissions in 2018.

Although EIB Group employee numbers increased by 14.9% between 2022 and the base year of 2018, emissions intensity decreased significantly (40.4%) in the same period. Net emissions also decreased between 2018 and 2022 by 31.6% to 15 329 tCO_2e.

	2018	2019	2020	2021	2022	vs. 2021	vs. baseline 2018
Total net emissions (tCO_2e)	22 415	21 434	5 958	4 356	15 329	+251.9%	–31.6%
Employees	3 896	3 964	4 092	4 412	4 475	+1.4%	+14.9%
Net emissions per employee (tCO_2e)	5.75	5.41	1.46	0.99	3.43	+247.0%	–40.4%

Figure 3: EIB Group net emissions over time (tCO_2e) — total emissions and relative emissions per employee

Air travel is the largest source of emissions for the EIB Group on both a gross and a net basis, constituting a significant portion of the Group's carbon-intensive activities and accounting for 75.8% of gross emissions.

Buildings-related energy consumption is also a large source of emissions on a gross basis[10], making up 13% of overall emissions. However, all EIB Group-purchased electricity is covered by green Guarantees of Origin. Therefore, purchased electricity is reported as producing zero emissions and net emissions relating to buildings usage account for only 2% of the overall carbon footprint.

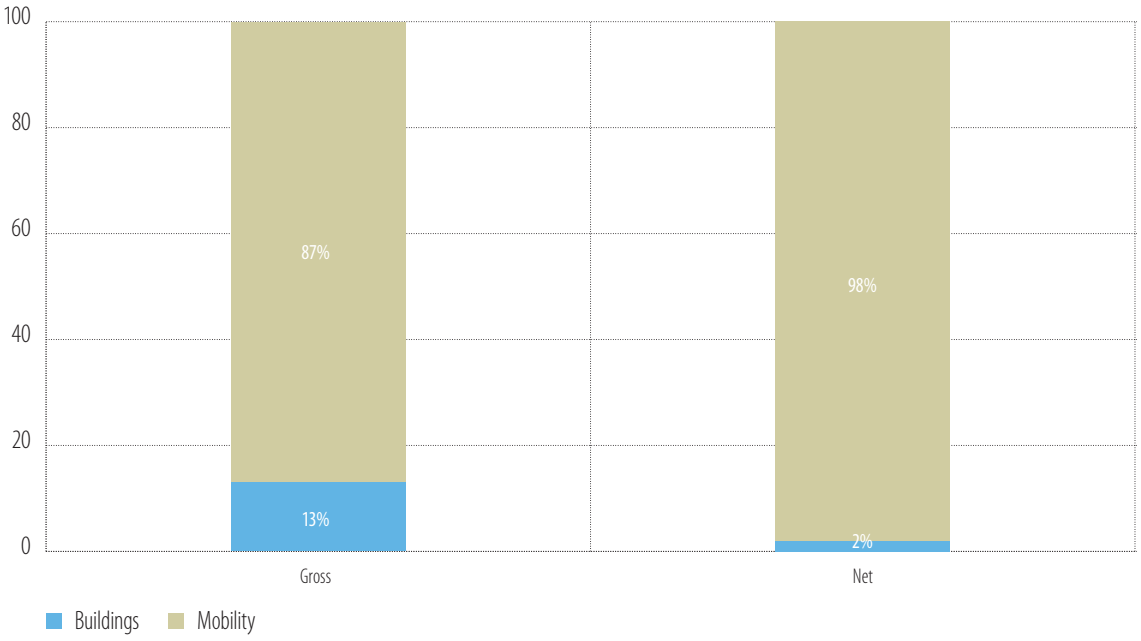

Figure 4: Percentage breakdown of net and gross emissions in 2022 (tCO_2e)

Mobility emissions

	Distance travelled (thousand km)	vs. 2021	Net emissions (tCO2e)	vs. 2021	vs. baseline (2018)
Mobility	37 795	+357%	14 993	+257%	–32%

Mobility emissions accounted for 98% of total net emissions in 2022.

Given the EIB Group's role as a global financier, business travel is an unavoidable part of its business. Therefore, business air travel (flights) accounts for a large proportion of net mobility emissions at 76%. Commuting emissions account for 9% of net mobility emissions.

In 2022, for the third year, the EIB Group estimated the impact of its staff working from home. Working from home is categorised as "commuting" under the Greenhouse Gas (GHG) Protocol Scope 3 methodology, so it is included in this section on mobility. This model estimates that working from home accounted for 14% of total net mobility emissions in 2022.

10. For target calculation, gross emissions are used to support and measure improvements in energy consumption and energy efficiency.

Company car travel accounts for just 0.1% of net mobility emissions. Other mobility emissions sources are not significant, with rental car travel and minibus emissions combined accounting for just 0.4% of net mobility emissions. Emissions from couriered shipments contribute just 0.2% of emissions on a gross basis but, as these emissions are offset by the courier company, they are treated as zero emissions on a net basis.

The EIB Group has put in place the necessary digital and video-conferencing infrastructure to incentivise alternatives to travel whenever compatible with business interest. Staff are also encouraged to use sustainable means of transport in their daily commute, such as cycling to work or using public transport, through awareness-raising initiatives.

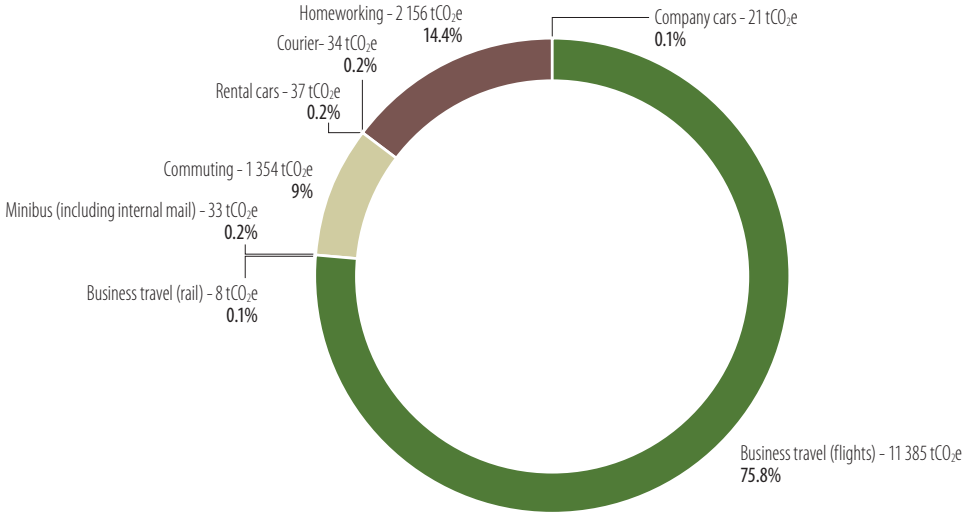

Figure 5: Breakdown of 2022 gross mobility emissions by source

Air travel

	Distance travelled (thousand km)	vs. 2021	Net emissions tCO_2e	vs. 2021	vs. baseline (2018)
Air travel	30 210	+705%	11 385	+767%	–40%

Air travel figures rose significantly in 2022 compared with 2021, with 30.2 million kilometres travelled by EIB Group staff (an increase of 705% from 2021). Associated emissions from air travel increased by 767%. Most of this increase is related to the gradual ending of COVID-19 travel restrictions. From Q1 2022 onwards, the EIB Group's travel restrictions eased, although health-related measures were still implemented until early 2023.

Compared with the emissions data for the baseline year (2018), air travel net emissions have decreased by 40%, for two main reasons. First, for some of 2022, the EIB Group still had travel restrictions implemented. Second, post COVID-19, a behavioural shift has been observed in the increased utilisation of digital tools to organise meetings.

Most air travel emissions (86%) are attributable to long-distance business class flights, with a smaller proportion (8%) arising from short-distance flights (business and economy) and the remaining emissions resulting from long-distance economy class flights (premium economy flights account for just 0.4% of air travel emissions). These results are partially explained by the fact that during the entirety of 2022 the EIB Group required employees to fly business class instead of economy class for health protection reasons.

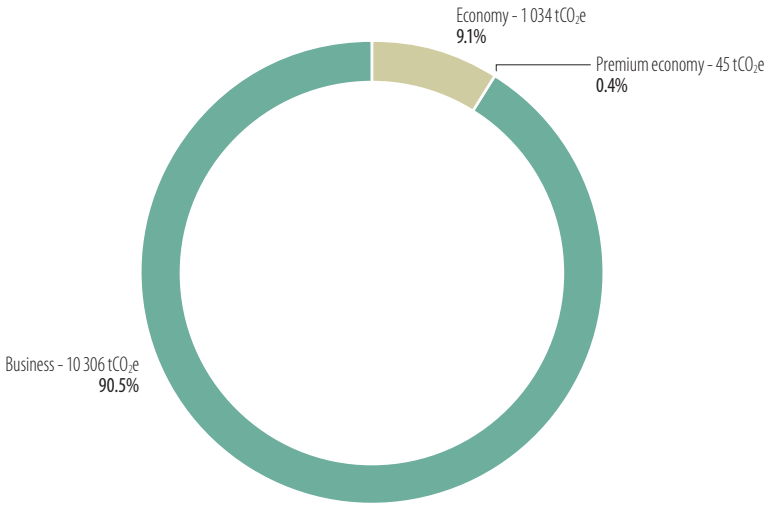

Figure 6: Air travel emissions by travel class 2022

Working from home

	FTE employees	vs. 2021	Net emissions (tCO_2e)	vs. 2021
Working from home	4 475	+1.4%	2 156	–2.2%

Net emissions for working from home are equal to gross emissions.

In 2022, 57% of the time worked by all EIB Group full-time equivalent (FTE) staff was considered to be time worked from home. The emissions calculation model used estimates that this generated 2 156 tCO_2e in 2021. These emissions are modelled using the percentage of EIB Group staff working from home each month during the entirety of the reporting year. The reporting of homeworking emissions was extended from the EIB to the EIB Group, resulting in a substantial increase in the number of FTE employees concerned (roughly 800 more employees).

The pandemic necessitated teleworking arrangements for the majority of 2020 and 2021. As a result of this change in working arrangements, the importance of calculating homeworking emissions was acknowledged. In 2022, homeworking was still largely in place for EIB Group staff; therefore, it was decided to continue to account for homeworking emissions in the EIB Group's 2022 greenhouse gas emissions.

To calculate homeworking emissions, we applied the average household energy consumption estimates produced by Luxembourg's Ministry of the Environment, Climate and Sustainable Development to produce as accurate a calculation as possible. We used the methodology described in a white paper produced by EcoAct in partnership with Lloyds Banking Group and NatWest Group. Further details of the calculation methodology and a link to the white paper can be found in Appendix II. The EIB Group will fine-tune its calculations in line with future teleworking policies, as appropriate.

Car travel

	Distance travelled (thousand km)	vs. 2021	Net emissions (tCO_2e)	vs. 2021	vs. baseline (2018)
Commuting by car	6 227	+248%	1 354	+120%	–52%
Company cars	315	+10%	21	–30%	–59%
Rental cars	172	+494%	37	+473%	–29%

Due to the COVID-19 pandemic in 2020 and 2021, and the resulting travel restrictions and lower building occupancy, operational consumption and emissions decreased significantly during these years and therefore increased again in 2022. Net emissions for car travel are equal to gross emissions.

Car travel, comprising commuting by car, company cars and rental cars, is the third most significant source of mobility emissions, following flights and homeworking. Car travel accounts for 9% of the EIB Group's total net mobility emissions, most of which relate to employee commuting. **Commuting emissions increased by 120% in 2022, with most of this increase related to the return to the office during 2022 and the increase in the number of FTE employees.**

The EIB Group strives to enhance the coverage and transparency of its disclosure wherever possible, and 2022 is the seventh year in which we have included emissions from rental cars used for business travel. Although they account for a small proportion of overall net emissions, the inclusion of rental car emissions provides a more complete disclosure of emissions from car travel. The EIB Group continues to work with its suppliers to improve the quality of data received and we record the distance travelled in both diesel and petrol cars.

The previous year showed a relatively significant increase in the number of kilometres driven by company vehicles (+10%). Nevertheless, the vehicles used in 2022 were on average 36% less emissive than those used in 2021; therefore, the associated emissions decreased by 30%. This can be explained by an increase in the share of hybrid/electric vehicles in the company fleet.

Other mobility emissions

	Consumption	vs. 2021	Net emissions (tCO_2e)	vs. 2021	vs. baseline (2018)
Courier[11]	6 274 shipments	–8%	0	+4%	–45%
Minibus	65 000 km	+14%	33	+17%	–45%
Train	806 000 km	n/a	8	n/a	n/a

Minibus and train net emissions are equal to gross emissions. This is not the case for courier emissions. (n/a = not applicable).

Other mobility emissions (courier, minibus and rail travel) account for just 0.5% of gross mobility emissions.

Rail emissions rose significantly in 2022, with 806 000 km being travelled by EIB Group staff and related emissions increasing significantly from almost zero in 2021 to 8 tCO_2e in 2022. Rail travel was included in business travel in 2018 (baseline year); therefore, it is not possible to compare 2022 data with the baseline year.

11. Couriered shipments are offset and are treated as zero emissions on a net basis. On a gross basis, they emitted 34 tCO_2e.

Furthermore, minibus travel increased by 14% in 2022 to 65 000 kilometres, with related emissions increasing by 17%. It is, however, important to note that minibus emissions for Q4 2022 are zero, as the minibus contract was ended in September 2022 and replaced by the rental of electric vans (accounted for in the company cars category). Minibus emissions decreased by 45% between 2018 (baseline year) and 2022, and they will no longer be recorded in the future as the minibus contract has ended.

Courier shipments slightly increased in 2022 compared with 2021, although these shipments are offset by the contracted courier company (EIB's courier contract with DHL includes their GoGreen service) and are treated as zero emissions on a net basis. Although there was an increase in the sending of express mail, which is essential to the needs of the business, the roll-out of electronic signatures (end-Q1 2021) means that increased employee numbers probably contributed more to the rise in courier emissions than any increases in express mail deliveries. Courier emissions decreased by 45% in 2022 as compared to base year emissions.

Hotel stays

	Hotel nights booked	vs. 2021	Net emissions (tCO2e)	vs. 2021
Hotel stays	12 718	+308%	339	+276%

In 2022, emissions from hotel stays drastically increased as COVID-19 travel restrictions ended and business travel increased. Therefore, the number of hotel nights booked increased by 308% to 12 718, and gross emissions increased by 276% compared with 2021, reaching 339 tCO2e in 2022.

In 2019 the EIB Group started calculating and reporting hotel stays internally, and continued to do this in 2020 and 2021 as the impact of the pandemic became apparent. However, hotel stays are reported separately from the EIB Group 2022 footprint, as they were not included in the baseline footprint and the reporting of overnight stays is optional in the GHG Protocol.

Buildings emissions

"All EIB Group buildings' electricity supplies are procured from 100% renewable sources".

Buildings-related energy usage represents 13% of the EIB Group's gross emissions, with electricity consumption (81%) and purchased steam (11%) responsible for most of the buildings-related gross emissions. Since 2009, all EIB Group-purchased electricity is from renewable sources covered by green Guarantees of Origin and is therefore reported as zero emissions on a net basis.

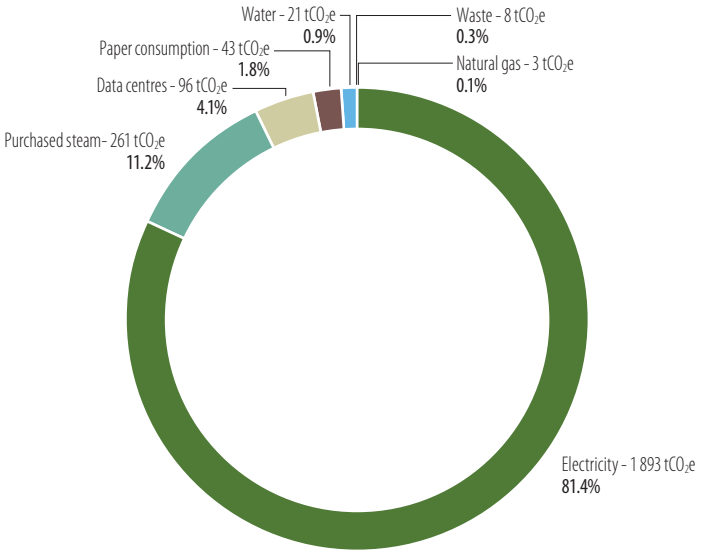

Figure 7: Breakdown of buildings-related gross emissions by source (tCO_2e)

Electricity in offices

	Consumption (MWh)	vs. 2018	Gross emissions (tCO2e)	vs. 2018
Electricity	17 355	–14%	1 893	–55%

Electricity consumption in office buildings constitutes the largest proportion of buildings-related gross emissions. It remained stable in 2022 in comparison with 2021 (+1.3%) and strongly decreased compared with the base year emissions in 2018. While the crèche building was removed from the EIB Group's boundary as of Q4 2022, the LHO[12] building was expanded in 2022.

12. See Appendix IV for a glossary of EIB Group buildings.

Building	2020	2021	2022	Change from 2021 to 2022
WKI	7 189	6 610	6 430	–2.7%
EKI	4 178	4 639	5 018	+8.2%
IAK	1 659	2 047	2 183	+6.6%
PKI	1 497	1 550	1 161	–25.1%
LKI	1 027	972	1 004	+3.3%
LHO	1 150	1 284	1 366	+6.4%
BKI[13]	185	4	185	+4 019%
Crèche	51	19	8	–60%
Total[14]	**16 935**	**17 126**	**17 355**	**+1.3%**

Table 1: Electricity consumption by building (MWh)

Purchased steam

	Consumption (MWh)	vs. 2018	Gross emissions (tCO_2e)	vs. 2018
Purchased steam	14 431	–2%	261	–61%

Purchased steam used for heating is the second-largest buildings-related emissions source, contributing 261 tCO_2e, or 11% of gross buildings-related emissions, in 2022. The substantial decrease in emissions is partly explained by the change in energy sources for district heating (which influences the emission factor used). EIB Group buildings are connected to the Kirchberg district heating network, which in 2022 uses a 58% biomass cogeneration, 3% gas cogeneration and 39% fossil (gas 38% and fuel 1%) mix to provide the purchased steam.

In contrast to 2021, reported net and gross emissions in 2022 for purchased steam are the same. For 2022, the contribution of biomass cogeneration is reflected directly in a lower emissions factor ($kgCO_2e/kWh$). By contrast, in 2021 the share of district heating by renewable cogeneration was deducted from the gross emissions for purchased steam to determine the related net emissions.

13. Major discrepancies were discovered between BKI's 2021 and 2022 electricity consumption. Given that the 2021 carbon footprint has been published, the EIB Group has chosen to keep these input data in order to maintain consistency. However, for 2022, the EIB Group has chosen to use 2020 input data as the electricity consumption data for the BKI building in 2022 (the data for 2020 are correct and consistent). This modification therefore leads to a large increase in electricity consumption compared with 2021.
14. Totals differ from the sum of each building's consumption owing to rounding.

Other buildings-related emissions

	Consumption	Net emissions (tCO_2e)	vs. 2018
Paper	58 tonnes	43	–67%
Water	49.865 Ml[15]	21	–70%
Natural gas	18.5 MWh	3.4	–86%
Waste	436.3 tonnes	7.8	–54%

Net emissions for paper, water, natural gas and waste are equal to gross emissions.

Paper represents the largest other buildings-related emissions source on a net basis at 13%, with waste and water combined accounting for the remaining 8%. The EIB Group continues to identify initiatives to improve disclosure and reduce paper and water consumption.

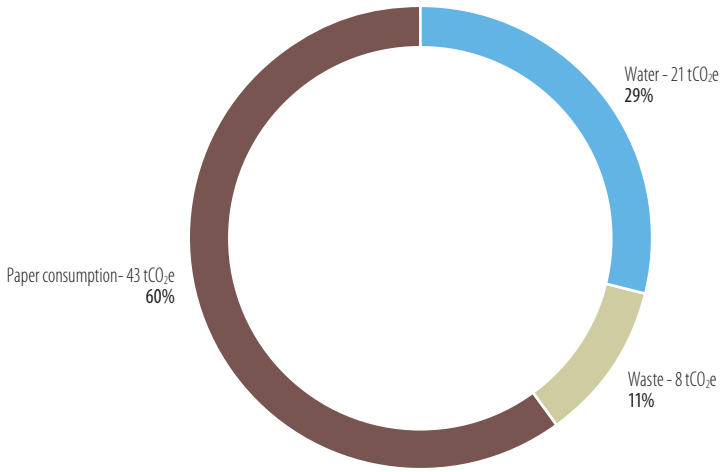

Figure 8: Breakdown of other buildings-related net emissions by source

Paper

The EIB Group has undertaken several measures to reduce paper consumption in recent years: the EIB Group has not had individual printers for the past five years, "follow-me" printing enables users to print to a shared print queue/device, and jobs are automatically deleted if not released within 24 hours. Paper consumption in 2022 increased compared with 2021 (58 tonnes), which can be explained by the increase in office activity due to employees returning to the office. Therefore, paper emissions increased to 43 tCO_2e. However, the emissions linked to paper consumption have drastically decreased (–67%) since the base year.

15. Since 2020, the way "water use" is measured has changed from m^3 to mega litres (Ml) to align with the reporting units required by the Global Reporting Initiative.

Water

Overall water consumption across office locations increased by 10 500 m^3 (10.5 Ml) (an increase of 26% from 2021). One of the main reasons why usage was comparatively low in 2021 was because, for most of the year, EIB Group staff were working from home. With employees returning to the office in 2022, water consumption — and therefore emissions — rose. Catering, with meals cooked for staff in our head office, typically represents 45% of water consumption in buildings.

Natural gas

Natural gas consumption and therefore related emissions drastically decreased in 2022, as from mid-2021 the EIB Group stopped using the crèche building, which was the only EIB Group building heated with natural gas.

Waste

In 2018, waste data were improved so that they could be collected and reported for each individual campus building, rather than simply providing total volumes across the campus.

The total volume of waste, including hazardous and waste electrical and electronic equipment, disposed of in 2022 decreased by 19% compared with 2021.

Type	Treatment	Volume (tonnes)	Emissions (tCO2e)
Mixed	Incineration	140.5	3
Organic	Compost	118.2	1.1
Paper	Recycled	113.2	2.4
Glass	Recycled	10.8	0.2
Plastic	Recycled	18.5	0.4
Metal	Recycled	3.9	0
Wood	Recycled	31.1	0.7
Total		**436.3**	**7.8**
Hazardous waste, electrical and electronic equipment, and construction waste		*56.8*	*n/a**

** Not applicable*

Table 2: Waste emissions and activity data

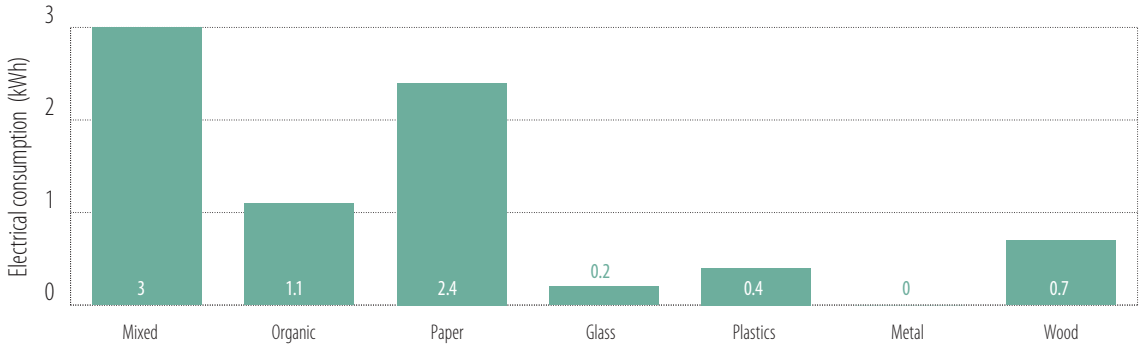

Figure 9: Total emissions by waste type (tCO_2e)

Data centres

	Consumption (MWh)	vs. 2021	Gross emissions (tCO_2e)	vs. 2021
Data centres	881	–21%	96	–46%

Emissions from data centres fall under Scope 3 emissions, as the data centres are not owned or operated by the EIB Group but include data associated with EIB Group activities. In 2022, the electricity consumption of data centres decreased by 21% compared with 2021. This decrease is explained by the ending of a migration phase between two data centres in August 2021, during which three data centres were operating in parallel instead of two. In 2022, only two data centres were in operation. Power consumption increased overall in 2022, corresponding to the increase in staff headcount. Despite this growth, electrical consumption remains lower than in previous years, as the new hardware is more efficient.

Figure 10: Electricity consumption of EIB Group data centres (kWh)

The EIB Group's data centre energy is entirely sourced from hydroelectricity, so the net emissions associated with the use of data centres are zero.

Case study: commitment in the EIB Group to the European Union's "Save gas for a safe winter" plan

The ongoing energy crisis is impacting energy supplies and prices, especially in Europe, which is still highly dependent on imported energy. The need to further reduce our dependence on fossil fuels and accelerate our contributions to fighting climate change is critical. To accomplish this, EU Member States agreed last summer to voluntarily reduce their gas consumption by 15% over the autumn and winter.

EIB Group commitment

Starting in September 2022, we intensified our efforts to reduce buildings-related energy usage through the implementation of energy conservation measures, which have achieved relevant energy savings in our buildings located in Luxembourg.

What were these measures?

These measures were swiftly implemented and included, among other things, the following:

- the buildings' ventilation air flow rates and schedules were adjusted to reflect real occupancy, while maintaining a supply of 100% fresh air to preserve COVID-19-related safety in line with guidance provided by the EIB Group medical service;
- the indoor temperature was set to 21°C for the central heating in office areas across all buildings;
- lighting schedules and planning were modified at the campus in line with staff's onsite presence and business needs.

Main achieved results

Heating consumption in 2022 decreased by 4% compared with the period 2017-19, and by 26% compared with 2021. Over November and December 2022 alone, overall heating savings reached 28%. Electricity consumption is more sensitive to building occupancy rates than heating. Electricity consumption in 2022 was very similar to 2021, given that the average occupancy rate increased from 17% in 2021 to 31% in 2022.

After adjusting for differences in weather conditions, overall electricity and heating savings in 2022 compared with average consumption over the past five years totalled 1 400 MWh, which represents 5.6% of the EIB Group's equivalent gas consumption.

ENVIRONMENTAL INDICATORS

Emissions by scope

	Emissions source	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Scope 1	**Natural gas**	3	12	10	20	24	28	28	24	0	297	399	433	329	464	743
	Company cars	21	30	32	58	51	62	70	58	69	75	96	103	112	107	99
Scope 2	**Electricity**	1 893	2 372	2 689	3 495	4 226	5 344	5 245	5 717	5 693	6 765	6 876	7 061	7 111	7 367	7 454
	Purchased steam	261	861	731	653	660	743	798	421	354	485	459	390	502	490	374
	Cold supply	0	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Scope 3	**Business travel** (flights and rail)	11 393	1 313	3 084	18 228	18 905	17 736	15 972	14 724	13 677	11 163	9 168	12 131	11 413	10 858	13 489
	Minibus (including internal mail)	33	28	17	54	60	46	38	32	27	56	52	141	130	130	270
	Commuting	1 354	617	758	2 755	2 838	2 874	2 735	2 638	2 701	2 042	6 190	6 369	6 369	4 407	4 363
	Courier	34	33	37	61	62	72	74	70	70	70	-	-	-	-	-
	Rental cars	37	6	13	58	52	45	92	-	-	-	-	-	-	-	-
	Water	21	17	45	69	70	62	58	50	47	50	-	-	-	-	-
	Waste	8	8	6	15	17	10	11	11	13	10	–6	–2	–4	0	–1
	Paper consumption	43	31	37	98	130	109	107	105	73	106	83	115	146	120	227
	Data centres	96	177	152	139	189	277	290	405	422	-	-	-	-	-	-
	Homeworking	2 156	2 204	1 876	-	-	-	-	-	-	-	-	-	-	-	-
Totals	**Total Scope 1**	**24**	**41**	**42**	**78**	**75**	91	98	82	69	372	495	536	441	570	842
	Total Scope 2	**2 154**	**3 232**	**3 420**	**4 148**	**4 886**	6 087	6 042	6 137	6 047	7 249	7 335	7 451	7 613	7 857	7 857
	Total Scope 3	**15 174**	**4 434**	**6 025**	**21 476**	**22 319**	21 231	19 375	18 035	17 030	13 496	15 488	18 755	18 055	15 515	18 348
	Total gross emissions	**17 353**	**7 708**	**9 487**	**25 702**	**27 280**	27 408	25 515	24 254	23 146	21 118	23 317	26 741	26 109	23 943	27 047
	Electricity (green tariff)	–1 990	–2 549	–2 841	–3 634	–4 226	–5 344	–5 245	–5 717	–5 693	–6 765	–6 876	–7 061	–7 111	–7 367	–7392
	Purchased steam (biomass)	0	–770	–651	–574	–577	-	-	-	-	-	-	-	-	-	-
	Courier	–34	–33	–37	–61	–62	–72	–74	–70	–70	–70	0	0	0	0	0
	Total net emissions	**15 329**	**4 356**	**5 958**	**21 434**	**22 415**	21 993	20 197	18 468	17 383	14 283	16 441	19 681	18 998	16 576	19 656
	Annual variation	251.9%	–25.9%	–72.2%	–4.4%	1.9%	8.9%	9.4%	6.0%	21.7%	–13.1%	–16.5%	3.6%	14.6%	–15.7%	9.6%
Intensity	**Employees**	**4 475**	**4 412**	**4 092**	**3 964**	**3 896**	3 682	3 290	2 913	2 556	2 369	2 185	2 175	2 079	1 906	1 769
	Net emissions per employee	**3.43**	**0.99**	**1.46**	**5.41**	**5.75**	5.97	6.14	6.34	6.8	6.03	7.52	9.05	9.14	8.7	11.11

Table 3: EIB Group historic emissions by scope (tCO_2e)

Emissions by type

To provide further transparency on the EIB Group's carbon impact, a series of emissions intensities is presented to illustrate emissions per employee and to demonstrate that while the EIB Group's carbon footprint has increased in absolute terms, this is to be expected given the substantial growth in business over the last ten years. However, by looking at emissions intensity per employee, the EIB Group's relative impact has reduced considerably over the past ten years, and the EIB Group remains on track to achieve a 12.4% absolute reduction of its gross emissions by 2025 as compared to base year emissions in 2018.

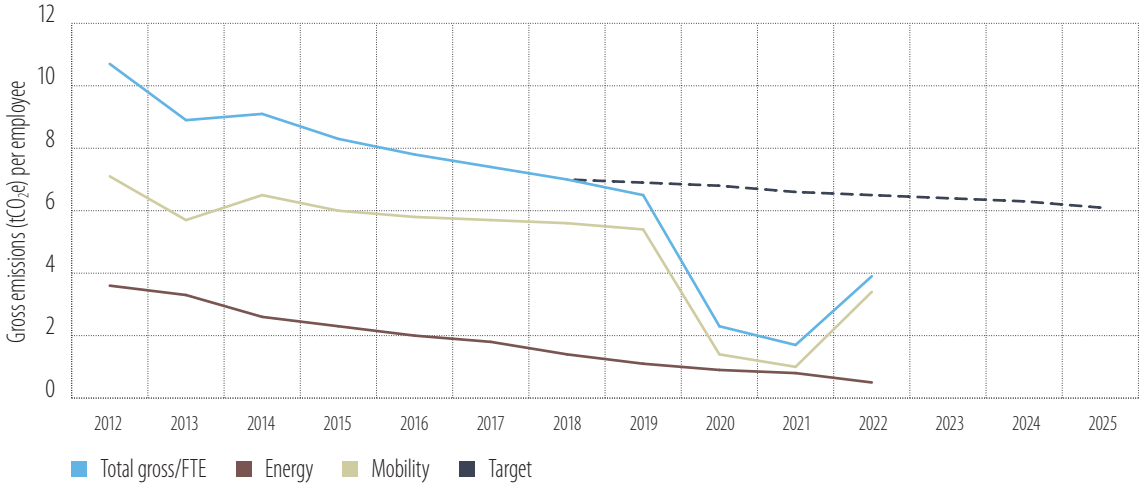

Figure 11: Gross emissions intensities (tCO_2e) per employee — mobility and energy

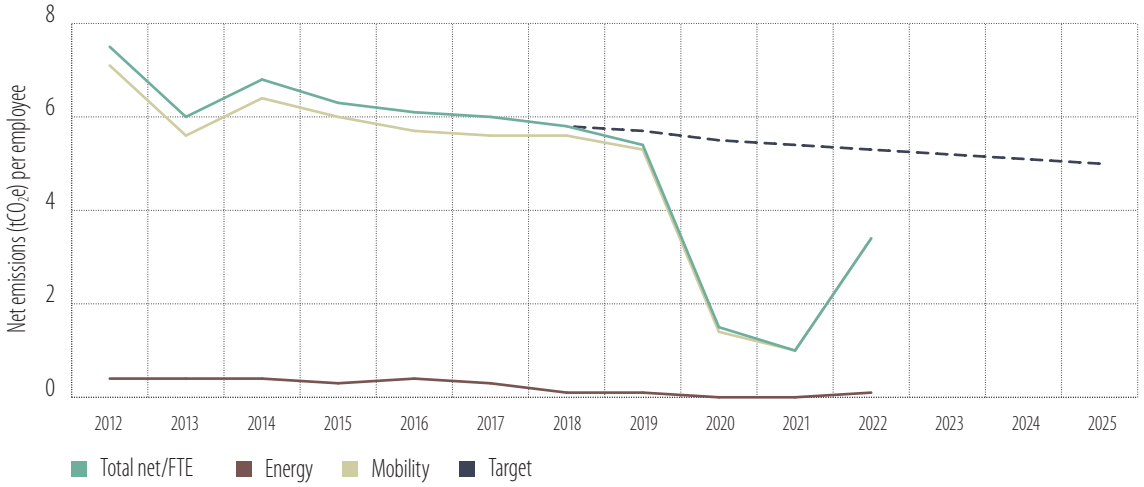

Figure 12: Net emissions intensities (tCO_2e) per employee — mobility and energy

As for similar financial and professional services organisations, the EIB Group's buildings-related emissions are restricted to office-based consumption and the principal determinant of its overall footprint is its mobility emissions. In subsequent reporting years, the EIB Group will seek to introduce additional metrics that can be used to assess its environmental performance and focus its efforts on delivering initiatives which will avoid, mitigate or reduce the impacts associated with its business.

APPENDIX I: ORGANISATIONAL AND OPERATIONAL BOUNDARY[16]

Organisational boundary

The organisational boundary defines the businesses and operations that constitute the company for the purpose of accounting for and reporting greenhouse gas emissions. Companies can choose to report either the emissions from operations over which they have financial or operational control (the control approach) or from operations according to their share of equity in the operation (the equity share approach).

The EIB Group defines its carbon footprint using the operational control approach. Therefore, it includes the Group's head office operations in the Kirchberg district of the city of Luxembourg, where several office facilities are located. External offices are not included at this stage because the data provided for these sites are not yet reliable or complete enough. Further efforts will be made in subsequent reporting years to measure the environmental impact of external offices.

Operational boundary

Defining the operational boundary involves identifying the emissions associated with operations and categorising them as either direct or indirect emissions. Companies choose the scope of accounting and reporting for indirect emissions.

The following definitions are used for categorising emissions:

Direct greenhouse gas emissions

- **Scope 1**: Emissions released straight into the atmosphere from sources owned or controlled by the reporting entity.

Indirect greenhouse gas emissions

Indirect emissions result from an organisation's activities involving sources owned or controlled by another entity. These are classified as follows:

- **Scope 2**: Indirect greenhouse gas emissions from the consumption of purchased electricity, heat, steam or cooling.
- **Scope 3**: Indirect greenhouse gas emissions from other activities. A detailed standard sets out the rules for 15 categories of Scope 3 emissions.

16. For more details, see Figure 13: EIB Group organisational and operational boundary.

The operational boundary for the EIB Group's carbon footprint report includes the following:

- **Scope 1**: Transport fuel used to run vehicles owned by the Group. The only source of natural gas combustion is the crèche until September 2022, after which date it was rented out.
- **Scope 2**: Purchased grid electricity (lighting, air conditioning, small power, elevators, etc.) and steam used for heating in the EIB Group's properties.
- **Scope 3**: Transport fuel and power used by air and rail transport operators as well as rental cars for EIB Group business travel; transport fuel and power used by employee-owned vehicles for commuting to and from work or by the outsourced minibus service (ended in September 2022); emissions from couriers due to EIB activity; emissions from water consumption in EIB buildings; emissions from waste management operations due to the incineration or recycling of waste generated by the Group; emissions generated in the production of office paper purchased by the Group; emissions from energy consumption in external data centres that store the Group's data; and emissions from EIB homeworking.

In pursuit of continual improvement, the EIB Group reviews its greenhouse gas inventory boundary annually and regularly looks for opportunities to improve its emissions calculation methodology and expand its scope of reporting, particularly for Scope 3 emissions. This could include emissions from catering, some categories of purchased goods, events and business travel such as conferences, and indirect emissions from recruitment drives.

Reporting period covered

The reporting period was 1 January to 31 December 2022.

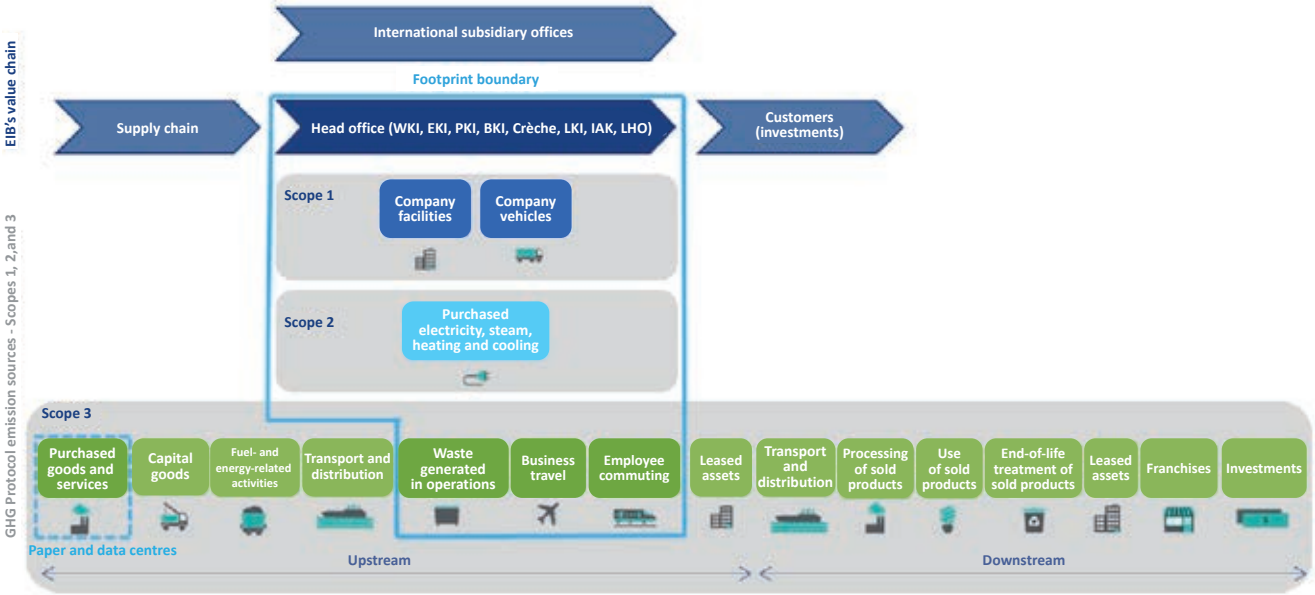

Figure 13: EIB Group organisational and operational boundary

APPENDIX II: METHODOLOGY

The EIB Group carbon footprint analysis in 2022 follows the World Resources Institute GHG Protocol, consistent with the approach adopted in 2018. The GHG Protocol is recognised as the most widely used international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas emissions. It is an international standard used by a broad range of public and private sector organisations, including many in the banking sector, and it is widely accepted as best practice.

To calculate the greenhouse gas emissions inventory, we identified all relevant greenhouse gas emissions sources, collected activity data from the relevant Group services and applied the emissions factors, calculating emissions from each source. These data were then aggregated to create the EIB Group's total carbon footprint. The following sections describe the details of the process followed.

Emissions sources and activity data

Scope	Emissions source	Units	Resolution
Scope 1	Owned vehicles	km	Monthly by vehicle
	Natural gas for heating	kWh	Monthly by site
Scope 2	Purchased electricity	kWh	Monthly by site
	Purchased steam	kWh	Monthly by site
Scope 3	Business travel: air[17]	Passenger km	Quarterly by journey, including class and distance
	Business travel: rail	Passenger km	Quarterly by journey, including class and distance
	Employee commuting	FTEs[18]	Estimation model developed by EcoAct
	Couriers	Shipments	Quarterly figure
	Water	Ml	Monthly by site
	Waste	Kg	Monthly by site, type and disposal method
	Paper consumption	Quantity[19]	Monthly by paper size and type
	Data centres	kWh	Monthly by data centre
	Rental cars (since 2016)	km	Biannual distance and expenditure by supplier
	Working from home	FTEs	Estimation model developed by EcoAct
	Hotel stays	Room nights	Monthly by country

Table 4: EIB Group activity data

Activity data are a quantitative measure of activity that results in greenhouse gas emissions. Table 4 shows the activity data provided by the EIB Group for each emissions source. These are mainly primary data, such as the amount of electricity purchased or the distance travelled by air; however, commuting and homeworking data were calculated using an estimation model.

The activity data are also used as environmental impact indicators, as required by the Global Reporting Initiative (GRI) reporting framework.

17. For air travel, emission factors used for "international" and "long-haul" flights differed between the ones used in the fourth quarter of 2022 (Q4 2022) and the ones in previous quarters of 2022. In Q4 2022, the "international" flight emission factor is slightly lower (5%) as compared to previous quarters, while the "long-haul" flights emission factor used was more conservative, in line with GHG Protocol best practices.
18. The model based its calculation on the proportion of FTEs at the EIB Group. See "Emissions inventory calculation" for further information.
19. The quantity is measured using two methods: number of printed paper sheets (from EIB Group printers) and total kilograms of paper (ordered by the EIB). See "Emissions factors" for more information.

Emissions factors

Emissions factors are calculated ratios relating greenhouse gas emissions to a measure of activity at an emissions source. They are used to convert activity data to carbon emissions. Consistent with prior years, the emissions factors represent carbon dioxide equivalent (CO_2e), wherever possible. They convert the impact of each of the six greenhouse gases covered by the Kyoto Protocol — carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6) — into a common unit of tonnes of CO_2e based on their global warming potential (GWP). GWP is a measure of how much heat the respective gas retains in the atmosphere over a given period of time, based on the Intergovernmental Panel on Climate Change (IPCC)'s 100-year GWP coefficients. For all Scope 3 fuel emissions factors, the emissions factors include emissions from direct combustion and upstream emissions of producing fuels (mining, excavation and transportation).

Emissions from paper use are calculated from the weight of paper used. Local printer data show the number of pages printed or copied by paper size and these data are split into different categories of paper in order to derive associated paper weights. Copy centre paper data are provided in total number of sheets and paper size, from which the paper weight can be calculated. The sum of all paper weights is multiplied by an emissions factor to calculate total greenhouse gas emissions.

Emissions source	2022 emission factor	Change vs. 2021	Data source
Natural gas	**0.183** $kgCO_2e/kWh$	-	UK government conversion factors for company reporting 2022
Owned vehicles	**0** (for electric vehicles) to **0.182 $kgCO_2$/km**	-	EIB Group
Electricity			International Energy Agency (IEA) 2021
Purchased steam	**0.019** $kgCO_2e/kWh$ (non-LKI gross) **0.019** $kgCO_2e/kWh$ (LKI)	–56% –71%	Ville de Luxembourg
Business travel: air	**0.141** to **0.591** $kgCO_2e$/passenger km	-	UK government conversion factors for company reporting 2022
Business travel: rail	**0.0355** $kgCO_2e$/passenger km (national) **0.0045** $kgCO_2e$/passenger km (international)	- -	UK government conversion factors for company reporting 2021
Outsourced minibus	**2.65** $kgCO_2e$/litre	-5%	EIB Group
Employee commuting	**0.1701** $kgCO_2e$/km (car) **0.0965** $kgCO_2e$/km (bus) **0.0355** $kgCO_2e$/km (national rail) **0.0281** $kgCO_2e$/km (light rail and tram)	–0.47% –5.64% - -	UK government conversion factors for company reporting 2022
Courier services	**5 473** $kgCO_2e$/shipment	13.3%	DHL GoGreen 2022
Water	**0.421** $kgCO_2e/m^3$	-	UK government conversion factors for company reporting 2021
Waste	**21.29** $kgCO_2e$/tonne **8.95** $kgCO_2e$/tonne (organic recycled) **0.989** $kgCO_2e$/tonne (metal recycled)	- - -	UK government conversion factors for company reporting 2022
Paper consumption	**739.4** $kgCO_2e$/tonnes	-	UK government conversion factors for company reporting 2022
Hotel stays	**4.7** to **152.2** $kgCO_2e$/room night	–18% (average)	UK government conversion factors for company reporting 2022

Table 5: Annual change in emissions factors by source

Emissions inventory calculation

An inventory of greenhouse gas emissions by source was calculated by applying the emissions factors to the relevant activity data and aggregating the results to calculate the EIB Group's absolute carbon footprint. A relative footprint was also calculated using employee numbers. Since 2014, the methodology for calculating numbers of employees has changed from the total number of contracted employees (also known as "headcount") to a full-time equivalent (FTE) basis. Since 2019, in addition to presenting aggregated results by scope in accordance with the GHG Protocol, we have also distinguished between "mobility" and "buildings-related" emissions to support the communication of their comparative weight within the total emissions.

Homeworking methodology

A brief description of the methodology for calculating homeworking emissions is explained below. For an in-depth description of the methodology, see the white paper.

To calculate homeworking emissions, all energy use from office equipment (equipment provided by the EIB Group for use while teleworking) and home heating/cooling that would not have been required in an office-working scenario needs to be accounted for. This is referred to as incremental energy. For all elements considered, the base-case calculation method was used. The base case for office equipment calculations accounts for 100% of colleagues known to be working from home through the stated estimation methodology. The base case for heating (natural gas, electricity or other combustion fuel) and cooling (air conditioning, where regionally appropriate) accounts for a typical home's heating and cooling energy requirements as noted within the country of operation.

In calculating homeworking emissions, it is also necessary to determine the hours during which incremental energy must be calculated. A five-day, 40-hour week (eight hours per day) was assumed. From this base calculation of working hours, an expected 28 days (four weeks) of annual leave entitlement was deducted.

Emissions from staff commuting to and from work

In 2020, the methodology to calculate commuting emissions was changed, as the previous count based on the number of parking spaces was significantly impacted by the social restrictions around the COVID-19 pandemic.

The commuting emissions estimation tool uses the number of EIB Group FTEs to calculate the annual distance travelled by employees using different modes of transport. Assumptions were made on the proportions of car, bus, rail and tram/metro journeys taken based on transport data from the European Commission. The appropriate emissions factor for each mode of transport was then applied to calculate total emissions.

Emissions from equipment provided by the Bank to be used at home: base case

The equipment considered for this methodology was typical office equipment provided by the Bank for use at home by employees. When calculating the base case of office equipment emissions, the power consumption of laptops, secondary screens, printers and lighting needs to be accounted for. However, the power consumed by these different types of devices can vary considerably. For workstation power consumption, we used an average "in-use" power load per desk of 140 W, following the *Chartered Institution of Building Services Engineers' Guide F: Energy efficiency in buildings (2012)*. For the use of lighting in home offices, we assumed an allowance of 10 W for the year.

These assumptions were then used to determine the total electrical energy used for office equipment using the following equations:

- 140 W × number of homeworking FTEs × WHpcm*/1 000 = workstation kWh;
- 10 W × number of homeworking FTEs × WHpcm*/1 000 = lighting kWh;
- Workstation kWh + lighting kWh = total office electricity.

* WHpcm : Working Hours per month

After calculating the total electrical energy consumed, this was multiplied by the appropriately sourced emissions factors for the corresponding country's grid average factors in line with location-based methodology to calculate the emissions produced.

Heating energy emissions: base case

When calculating the base case for heating energy emissions, the homeworking tool assumes that heating cannot generally be restricted to a small working area and that time spent at home during the heating season requires the whole heating system to be active.

Using the typical domestic consumption values of the UK Office of Gas and Electricity Markets (Ofgem) (updated in 2020), we adopted a reliable "medium" expectation of 12 000 kWh per year for domestic gas usage, of which 77% is attributable to heating. We also assumed an average of ten hours of heating per day, as suggested by UK energy suppliers. The calculation of heating demand is restricted to the widely recognised northern hemisphere heating season of October to March (six months/182 days). To calculate heating demand, we used a monthly calculation approach:

- 182 days × 10 hours heating = 1 820 hours;
- (12 000kWh × 77%)/1 820 hours = c. 5 kWh per hour.

Using 5 kWh per hour as a base, we were able to calculate incremental heating energy using the following formula:

- 160 WHpcm × 5kWh = 800kWh of incremental heating consumption per homeworking FTE per heating month;
- 800kWh × (FTE × homeworking %) = total incremental gas consumption per heating month.

Once total heating energy has been calculated, it is possible to determine emissions by multiplying the appropriately sourced emissions factors in line with typical heating energy usage.

Data quality and completeness

Scope	Emissions source	Activity data	Assumptions applied
Scope 1	Owned vehicles	Primary data	Fuel efficiency conversion based on manufacturer's data.
	Natural gas	Primary data	-
Scope 2	Purchased electricity	Primary data	-
	Purchased steam	Primary data	-
Scope 3	Business travel: air	Primary data	-
	Business travel: rail	Primary data	-
	Outsourced minibus	Primary data	Fuel efficiency conversion based on manufacturer's data.
	Employee commuting	Modelled using EcoAct homeworking and commuting tools	Average daily distance = 35 km × 220 days per year
	Couriers	Primary data	-
	Water	Primary data	-
	Waste	Primary data	All general waste is incinerated with heat recovery.
	Paper consumption	Primary data	Local printer data show the number of pages printed rather than the number of sheets. Since 2019, the percentage of simplex and duplex volumes are also shown.
	Data centres	Primary data	-
	Rental cars (new)	Primary data	Data quality differs by provider.

Satisfactory: could be improved Good: no change required

Table 6: Data quality and assumptions by source

Impact of methodological changes

Methodological changes since emissions were first reported in 2007 have resulted in minor variations. We present below the methodological changes since 2010 for ease of read.

Scope	Emissions source	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Scope 1	Natural gas													
	Company cars													
Scope 2	Electricity[20]													
	Purchased steam													
Scope 3	Air travel[21]													
	Train travel													
	Minibus[22]													
	Commuting[23]													
	Courier[24] *(since 2013)*													
	Rental cars[25] *(since 2016)*													
	Water[26] *(since 2013)*													
	Waste													
	Paper[27]													
	Data centres *(since 2014)*[28]													

Gross emissions reduced Gross emissions increased

Table 7: Impact of EIB Group methodological changes on gross emissions by source

20. The IEA electricity emissions factor used does not consider trade adjustments and is therefore an underestimate compared with reality. This methodological change had no impact on EIB Group net emissions.
21. The use of the UK Department for Environment, Food & Rural Affairs (Defra) international flights emissions factors in 2016 resulted in a slight increase in reported emissions that year. In 2017, the methodology was further refined to ensure the correct apportionment of flights emissions factors linked to origin and destination, either to or from the United Kingdom, or internationally.
22. There was a minor increase in minibus emissions due to the addition of vehicle emissions for internal mail distribution. Since late 2022, old diesel vehicles have been replaced with electric vehicles and will therefore be counted as producing zero emissions on a net basis.
23. Emissions from commuting include emissions from both private and public transport, and from EIB Group staff both working from the office and working from home (particularly in 2020 and 2021 due to the COVID-19 pandemic); however, the overall result for 2022 is an increase in commuting emissions despite a decrease in emissions related to working from home. Homeworking emissions did not decrease significantly between 2021 and 2022 as the scope of employees considered was greatly expanded in 2022.
24. The inclusion of courier shipments has increased EIB Group gross emissions by approximately 70 tCO_2e per annum since 2013, although these are offset and therefore considered zero on a net basis.
25. Rental car emissions were first reported in 2016, increasing EIB Group net emissions by 92 tCO_2e (0.5% of the overall net footprint). The data quality was improved in 2017 by using distance travelled rather than cost data.
26. The introduction of water emissions in 2013 has increased EIB Group net emissions by approximately 50 tCO_2e per annum over and above baseline emissions.
27. The inclusion of paper types and sizes in 2016 has required the restatement of previous emissions over the years. Furthermore, greater understanding of single- and double-sided printing has allowed us to improve the methodology for paper reported from 2016 to 2019, which was holistically updated in 2019.
28. As for electricity, if data centre emissions in 2015 had been calculated using IEA factors directly rather than being sourced via Defra, they would have been 88 tCO_2e lower than the 405 tCO_2e reported.

Exclusions

For EIB Group external offices, only air travel (booked through the central system) is included within the scope of reporting. All other emissions sources for these offices are currently excluded because the required data are not available. Further efforts will be made in subsequent reporting years to measure the environmental impact of international subsidiary offices. Hazardous waste, construction waste, and waste electrical and electronic equipment are also excluded due to these waste streams being measured by volume (m^3) or other measurements instead of weight (kg), which is needed to calculate emissions. Again, emissions from these waste streams are likely to be very small as their total waste constitutes only 0.2% of the total net carbon footprint. Lastly, emissions from hotel stays are not added to the EIB total carbon footprint as they were not included in the baseline footprint.

The EIB Group is committed to continually improving the quality of reported data, wherever possible, and continuing to fine-tune its methodology to improve the coverage and transparency of its disclosure.

APPENDIX III: GRI STANDARD INDICATORS

GRI Standard 302-4: Reduction of energy consumption

Energy savings due to conservation and efficiency improvements have resulted in a 21.0% decrease in the fuel and energy purchased by the EIB Group per employee since 2018, as shown in Table 8.

Energy source	2022	2018	Change (MWh)	Percentage change
Natural gas (MWh)	19	130	–111	–85.8%
Electricity (MWh)	17 355	20 240	–2 885	–14.3%
Steam (MWh)	14 431	14 673	–534	–1.6%
Total (MWh)	**31 805**	**35 044**	–3 239	–9.2%
Number of employees	4 475	3 896	+579	+14.9%
Energy per employee (kWh)	**7 107**	**8 995**	–1 888	–21%

Table 8: Energy consumption per employee

Within existing buildings, the EIB Group continues to conduct various technical optimisations to minimise energy wastage. These optimisations include the following:

- regulation and distribution of heating and cooling systems (adapting consumption to demand in real time);
- lighting management;
- ventilation systems management;
- maintenance of the Quality Label from SuperDrecksKëscht® fir Betriber for the EKI and WKI buildings (since 2007);
- incorporation of carbon-reduction initiatives ("Green IT") across the Group's data centres;
- setting the indoor temperature to 21°C for heating in the office areas across all buildings (see the case study in section 2).

GRI Standard 305: Reduction of greenhouse gas emissions

In addition to the energy-saving measures described in the preceding section, the EIB Group has continued to maintain initiatives to further reduce its greenhouse gas emissions.

With the aim of achieving carbon neutrality for its energy supplies, the EIB Group has been buying 100% renewable electricity (hydropower and wind) from its electricity supplier, Leo SA.

GRI Standard 306: Waste by type and disposal method

The EIB Group disposes of waste through the Luxembourg municipal authorities. Waste is sorted in-house as far as possible so that it can ultimately be recycled. All unsorted waste is incinerated as part of an energy recovery system. Details of the quantities of waste by official categorisation are shown in the table below.

The Luxembourg SuperDrecksKëscht® fir Betriber green label was first awarded to the Bank for its internal waste recycling practices in 2007 and has been renewed annually ever since for the EKI and WKI buildings in Kirchberg. The criteria for obtaining the label are as follows:

- motivation of all participants;
- transposition of all measures for waste prevention;
- visible and accessible collection sites;
- safe and environmentally correct storage;
- waste collection according to type;
- high-quality and transparent waste recycling and disposal;
- environmentally correct management.

The SuperDrecksKëscht® fir Betriber label is certified in accordance with the internationally accepted International Organization for Standardization (ISO) Standard 14024:2000. This certificate includes the control procedures and requirements the inspectors must satisfy; therefore, waste management in the certified businesses fully meets ISO 14024 requirements.

The table below presents the EIB Group's waste in 2022 broken down in accordance with the European Waste Catalogue, pursuant to European Commission Decision 2000/532/EC of 3 May 2000.

CED code[29]	Official description of waste	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
04 02 22	Wastes from processed textile fibres	2 215	758	125	98	0	-	-	-	-	-
07 01 04*	Other organic solvents, washing liquids and mother liquors	0	0	0	0	0	-	-	-	-	-
08 01 11*	Waste paint and varnish containing organic solvents or other hazardous substances	300	383	632	606	499	162	-	-	203	n/a
08 03 17*	Waste printing toner containing hazardous substances	1 996	582	1 775	12 517	818	12 270	6 569	-	4 800	5 700
11 01 07*	Pickling bases	0	50	0	20	0	-	-	-	-	-
13 02 08*	Other engine, gear and lubricating oils	0	0	0	0	116	-	19	-	29	61

29. European Waste Catalogue

CED code	Official description of waste	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
13 05 07*	Oily water from oil/ water separators	0	0	5 080	0	2 660	0	0	0	0	-
14 06 03*	Other solvents and solvent mixtures	0	0	0	253	52	0	0	0	0	-
15 01 01	Paper and cardboard packaging	17 752	11 078	10 809	27 469	45 312	44 849	33 115	23 740	22 847	80 076
15 01 02	Plastic packaging	2 648	2 023	1 996	4 087	5 462	4 194	2 573	1 358	1 721	1 335
15 01 04	Metallic packaging	152	-	-	-	-	-	-	-	-	-
15 01 05	Composite packaging	0	-	-	-	-	-	-	-	-	-
15 01 03	Wooden packaging	2 897	1 295	1 458	1 580	1 577	2 405	-	-	-	-
15 01 06	Mixed packaging	0	-	0	0	0	-	-	322	233	5 967
15 01 07	Glass packaging	10 806	5 239	4 830	16 120	15 035	14 765	18 812	26 875	62 250	38 897
15 01 10*	Packaging containing residues of or contaminated by hazardous substances	768	446	385	934	1 212	926	542	-	532	917
15 02 02*	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	871	954	1 013	1 042	1 030	1 030	34	-	96	1 363
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	815	1 734	1 714	1 064	191	395	218	-	404	n/a
16 01 14*	Antifreeze fluids containing dangerous substances	0	-	-	0	0	-	-	-	-	-
16 01 18	Non-ferrous metal	86	667	0	0	114	0	0	0	0	-
16 01 20	Glass	0	-	0	0	1	0	9	527	67	-
16 02 14	Discarded equipment other than that mentioned in 16 02 09 to 16 02 13	512	321	0	88	0	19	652	728	-	215

CED code	Official description of waste	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
16 02 15*	Hazardous components removed from discarded equipment	0	-	0	0	0	0	0	0	80	-
16 02 16	Components removed from discarded equipment other than in 16 02 15	0	-	0	30	208	140	-	-	-	-
16 05 04*	Gases in pressure containers (including halons) containing dangerous substances	64	48	72	335	174	141	-	-	-	-
16 05 06*	Laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals	33	216	14	433	66	0	0	0	0	-
16 06 01*	Lead batteries	70	115	790	0	0	-	459	63	55	145
16 06 02*	NiCd batteries	0	-	0	0	30	-	52	-	60	n/a
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	1 991	3 187	3 446	4 349	3 161	1 602	-	-	-	-
17 02 01	Wood	26 524	40 232	758	977	8 082	42	-	-	-	-
17 02 03	Plastic	190	262	79	43	78	38	-	-	-	-
17 04 05	Iron and steel	2 280	-	0	0	0	-	529	-	1 510	8 m^3
17 04 07	Mixed metals	0	-	0	0	0	47	-	-	-	-
17 04 11	Cables other than those mentioned in 17 04 10	5	335	18	32	90	34	25	37	21	-
17 05 04	Soil and stones other than those mentioned in 17 05 03	0	-	0	0	0	20	1 212	-	-	9
17 06 04	Insulation materials other than those mentioned in 17 06 01 or 17 06 03	476	560	233	536	94	57	1 813	2 886	3 168	1 891
17 06 05*	Construction materials containing asbestos	0	1 200	0	0	0	0	6	0	0	
17 08 02	Gypsum-based construction materials other than those mentioned in 17 08 01	kg	-	0	0	36	23	-	-	-	-

CED code	Official description of waste	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
17 09 03*	Other construction and demolition wastes (including mixed wastes) containing dangerous substances	0	-	0	0	0	-	-	-	-	-
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	52 690	57 401	26 260	58 720	65 140	9 020	13 723	3 379	1 659	5 097
18 01 03*	Waste whose collection and disposal is subject to special requirements in order to prevent infection	0	-	18	0	0	50	50	-	5	n/a
19 08 09	Grease and oil mixture from oil/water separation containing only edible oil and fats	4 820	16 040	23 000	104 000	97 120	0	0	0	0	
19 09 06	Solutions and sludges from regeneration of ion exchangers	0	-	0	72	0					
19 12 01	Paper and cardboard	0	-	0	0	0	32	-	-	-	-
19 12 04	Plastic and rubber	0	-	0	0	0	20	-	-	-	-
20 01 01	Paper and cardboard	95 480	56 291	51 608	92 055	252 868	153 312	212 683	145 505	96 950	84 165
20 01 08	Biodegradable kitchen and canteen waste	75 833	79 048	115 883	441 016	414 657	314 860	246 830	283 750	232 400	181 700
20 01 13*	Solvents	0	-	0	0	0	-	8	-	24	n/a
20 01 14*	Acids	0	-	0	0	0	0	21	0	0	
20 01 15*	Alkaline	0	-	0	0	0	0	35	30	0	
20 01 19*	Pesticides	0	-	0	0	0	-	-	-	-	-
20 01 21*	Fluorescent tubes and other mercury-containing waste	373	222	207	213	117	206	-	-	-	-
20 01 23*	Discarded equipment containing chlorofluorocarbons	0	-	0	0	32	0	0	0	0	
20 01 25	Edible oil and fat	2 359	1 417	659	3 191	4 726	1 870	345	2 390	2 040	2 170

CED code	Official description of waste	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
20 01 28	Paint, inks, adhesives and resins other than those mentioned in 20 01 27	0	-	0	0	0	0	114	74	49	
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing said batteries	368	1 238	398	521	265	1 310	197	-	407	437
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33	0	-	0	0	0	0	0	119	0	
20 01 35*	Discarded electrical and electronic equipment other than that mentioned in 20 01 21 and 20 01 23 containing hazardous components (commercial)	1 093	5 990	42	89	38	-	156	396	516	n/a
20 01 36	Discarded electrical and electronic equipment other than that mentioned in 20 01 21, 20 01 23 and 20 01 35	1 492	2 004	314	0	800	200	-	-	-	-
20 01 37*	Wood containing hazardous substances	1 686	1 872	1 364	2 166	4 788	260	-	70	180	n/a
20 01 38	Wood other than that mentioned in 20 01 37	0	-	0	0	300	519	-	-	-	-
20 01 39	Plastics	8 173	3 892	2 169	2 652	4 839	3 574	2 920	2 164	2 408	1 554
20 01 40	Metals	3 668	7 300	1 863	2 486	2 488	1 563	2 259	2 103	2 118	1 893
20 01 99	Other fractions not otherwise specified	4 920	4 320	3 577	9 030	8 657	6 145	-	-	-	-
20 02 01	Biodegradable waste	40 000	56 000	28 000	19 000	0	16 380	23 200	50	100	n/a
20 03 01	Mixed municipal waste	120 277	135 915	80 349	194 957	208 004	153 808	169 183	214 331	331 900	137 550
20 03 07	Bulky waste	2 682	6 745	1 470	2 071	0					

CED code	Official description of waste	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Other	Due to changes in waste volumes through restatements at the end of the year, minor deviations exist between the final GRI categories and footprint waste values, represented by this category	207	34 422	11 970	125 850	–67 288	0	–15 670			

Table 9: EIB Group waste (kg) in each category of the European Waste Catalogue, 2013–2022

Any waste marked with an asterisk (*) is considered as hazardous waste pursuant to Directive 2008/98/EC, unless Article 20 of that Directive applies. (n/a, not applicable).

APPENDIX IV: GLOSSARY OF EIB GROUP BUILDINGS

BKI — BHK Building

Crèche — Crèche Building

EKI — East Building

IAK — IAK Building

LHO — LightHouse One Building

LKI — BLB Building

PKI — President Building

WKI — West Building

Carbon Footprint Report 2022

Greenhouse gas emissions resulting from EIB Group internal operations

European Investment Bank | Group

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