



EUROPEAN CENTRAL BANK  
EUROSYSTEM

# 2020 update of the ECB's Environmental Statement



GREEN ECB

# Contents

<b>Foreword</b>	<b>2</b>
<b>1 Environmental management at the ECB</b>	<b>3</b>
1.1 Overview of the environmental management system (EMS) and relevant changes	3
1.2 Compliance obligations	4
1.3 Context of the organisation	5
1.4 Environmental communication, engagement and awareness-raising activities	6
<b>2 The year in figures</b>	<b>11</b>
<b>3 Environmental aspects and impact of the ECB's activities</b>	<b>14</b>
3.1 Energy efficiency	17
3.2 Material efficiency	21
3.3 Water and waste water	28
3.4 Waste and recycling	31
3.5 Biodiversity	35
3.6 Banknotes	36
3.7 Green public procurement	38
3.8 Travel activities	39
<b>4 CO<sub>2</sub> emission reduction</b>	<b>41</b>
<b>5 Conclusions</b>	<b>47</b>
<b>6 Technical information</b>	<b>48</b>
6.1 Environmental management programme	52
<b>7 Environmental verifier's declaration</b>	<b>57</b>

## Foreword



The past year was marked by a global push for a greener and cleaner future. Leaders, organisations, companies and individuals around the world actively incorporated sustainability principles and promoted their integration into decision-making processes and long-term strategic planning. Young people in particular led the way, raising their collective voice to foster awareness of climate change and to demand meaningful climate action.

Amid these global developments, this year the ECB celebrates a tenth anniversary of certification under the European Eco-Management and Audit Scheme (EMAS). Over the past decade, we have demonstrated our strong commitment to environmental protection and have succeeded in significantly reducing our carbon footprint. I feel that it is important to acknowledge that our achievements are the result of the strong and thriving network of individuals and cross-organisational teams, who monitor and directly address environmental issues and are eager to drive change within and beyond their areas of influence. We must be very proud of all of our colleagues who actively incorporate sustainability into their ways of working and living.

In 2019 the ECB took important steps towards further improving its environmental performance. We participated for the first time in the European Week for Waste Reduction and took part in the European Mobility Week and WWF Earth Hour for the ninth consecutive year. In addition, we initiated various other small-scale activities to raise awareness of relevant environmental issues, facilitate the exchange of information and best practices, and build-up internal networks. We also entered into an interinstitutional partnership with the European Parliament to offset our collective residual greenhouse gas emissions for 2018, while continuing our close cooperation on environmental issues with other European institutions and national central banks.

At the time of writing, the global coronavirus (COVID-19) pandemic is affecting our private and professional lives. The recovery measures related to this crisis will also have to include climate protection and sustainability principles as a means of resolving ecological imbalances and facilitating the transition to a green economy. The Paris Agreement and the European Green Deal propose concrete frameworks and pathways that will guide our common work. They will also steer the ECB in taking environmental protection to the next level. Looking ahead we are planning to pursue opportunities to further incorporate sustainability principles into our daily operations, foster biodiversity on our premises and continue fruitful interinstitutional cooperation.

I look forward to continuing our shared work and to marking further meaningful achievements for sustainability at the ECB.

A handwritten signature in black ink, appearing to read 'M. Diemer', written in a cursive style.

Michael Diemer  
Chief Services Officer

# 1 Environmental management at the ECB

## 1.1 Overview of the environmental management system (EMS) and relevant changes



This environmental statement contains environmental data relating to the buildings occupied by the ECB in 2019: the main building, the Eurotower and the Japan Center. Following a gradual increase in workplaces over the past years, the ECB has extended its operations to all three buildings and has occupied the entire office space in the three premises since 2018. The number of workplaces at the ECB stabilised in 2019, showing a 1.3% decrease from the previous year.

The varying operational scope of the ECB's EMS with different building occupancy intervals and duration in the past as well as the different age and construction standards of the three buildings need to be considered when evaluating the development of environmental aspects. These particularities also make it difficult to draw meaningful comparisons between the environmental performance of each building. Therefore, as in previous years, the environmental data in this statement have been aggregated for the rented buildings located in the city centre (i.e. the Eurotower and the Japan Center), while the data for the main building are presented separately.

In order to align the ECB's EMS with the ECB business strategy cycle, plans to shorten the current three-year interval of the EU Eco-Management and Audit Scheme (EMAS) under which the ECB's EMS operates (i.e. 2019 – 2022) by one year are currently under consideration. Consequently, the ECB may prepare and publish a consolidated environmental statement one year earlier than initially planned so as to start a new EMAS cycle in 2021. This year's environmental statement provides a scheduled update of the ECB environmental statement 2019.

The ECB's environmental policy outlines the ECB's overall intentions and direction in relation to its environmental performance and objectives. In line with the latest EMAS regulation and ISO 14001 updates and terminology, an editorial change was included in the ECB's environmental policy in 2019. As a result, the organisational commitment towards "*continuous* environmental improvement" was edited to state "*continual* environmental improvement", thereby emphasising the cyclical nature of the EMS.

## Environmental policy

The European Central Bank is committed to continual improvement of its environmental performance and to minimising its ecological footprint, by:

- Complying with applicable environmental legal regulations;
- Taking measures to reduce carbon emissions of daily operations and using resources efficiently and responsibly;
- Stimulating sustainable behaviour change of all internal and external staff and subcontractors through training, information and awareness-raising actions;
- Increasingly integrating environmental considerations into procurement procedures, further developing the sustainable procurement guideline and training purchasers;
- Promoting transparent communication and dialogue regarding its environmental performance with all internal and external interested parties.

## 1.2 Compliance obligations



The EMAS regulations, together with the relevant German and municipal environmental legislation, define the requirements to be met by the ECB and its EMS. Therefore, the ECB keeps a register for its premises in Frankfurt am Main containing all relevant legal obligations. The register is revised and updated by legal experts on a regular basis. Relevant amendments to the legal framework are directed to the respective business areas and stakeholders who define and implement the measures necessary to meet compliance requirements. The majority of the environmental regulations at the ECB are related to the operation and maintenance of the premises as well as to contracted services, such as catering and cleaning. The ECB's legal compliance is assessed on an annual basis during the internal environmental verifications. To date, no deviations from the legal framework have been identified during these verification checks.

**Table 1****Relevant areas of environmental legislation and related facilities/activities**

Most relevant area of environmental legislation	Relevant facilities/activities
Water regulations	Storage of diesel, storage of cleaning agents, use of oil traps, cooling, waste water discharge into sewerage system
Pollution regulations governing small and medium-sized heating systems	Heating system (natural gas)
Regulations on climate protection and refrigerants	Cooling installations containing coolants characterised by more than 5 tonnes of global warming potential (GWP) expressed in tonnes of CO2 equivalent
Regulations on energy efficiency of buildings	Energy certification, building insulation, energy-efficient technologies
Energy efficiency regulations	Energy audit requirements fulfilled by EMAS
Regulations on health and safety and hazardous materials	Risk assessment, fire prevention, requirements for use of hazardous substances (e.g. acids, lye)
Waste regulations	Separation/recycling/disposal of various types of waste

The ECB has committed to further environmentally relevant obligations which go beyond the legal framework, such as developing sustainable procurement guidelines, setting environmental business objectives and raising awareness on environmental topics. Furthermore, the ECB recognises the challenges posed by climate change and, within its mandate, commits to contributing to addressing them, for example, via supporting market participants, legislators and standard-setters as they work towards identifying climate change-related risks.

Read more about [climate change and the ECB](#).

Beyond its organisational boundaries, the ECB actively engages in interinstitutional collaboration with the Groupe Interinstitutionnel de Management Environnemental (GIME) and the Environmental Network of Central Banks (ENCB) to exchange environmental best practices, discuss shared topics of interest related to environmental management and coordinate joint participation in environmental awareness-raising events.

## 1.3 Context of the organisation



Given that the ECB's environmental performance is influenced by internal and external factors and developments, the ECB regularly reviews its organisational context in relation to its EMS and examines internal as well external aspects associated with it. As ECB President Christine Lagarde has stated, the challenges that come with climate change present both risks and opportunities.<sup>1</sup> By reviewing its organisational context and environmentally relevant aspects, the ECB can achieve a better understanding of

<sup>1</sup> [Speech of Christine Lagarde](#) at the launch of the COP26 Private Finance Agenda: "Climate change and the financial sector", London, 27 February 2020.

current and future dynamics as well as related risks and opportunities, and could therefore adjust its EMS to effectively respond to relevant developments. The ECB also evaluates the needs and expectations of its stakeholders on a regular basis. The review of the organisational context and stakeholders is part of the implementation and maintenance of the EMS and an important step towards establishing environmental objectives and corresponding measures.

## 1.4 Environmental communication, engagement and awareness-raising activities



### Objectives Environmental communication, engagement and awareness-raising activities

Type of objective and timeline	Objective and status 2019
Short-term: 2020	Gaining commitment of all ESCB national central banks (NCBs) to participate in interinstitutional collaboration on environmental management by 2020
	Status 2019: 14 NCBs



## Measures Environmental communication, engagement and awareness-raising activities

Measure	Status
60 engaged and active Environmental Representatives in all ECB business areas	Completed
Approximately 40 presentations on environmental topics given by the Green ECB team and Environmental Representatives	Completed
Enhance engagement of staff through launching activities focused on new/different topics, such as participation in the European Waste Reduction Week	Completed
Enhance collaboration and exchange of best practices on environmental topics between NCBs	Completed
Continue efforts to promote environmentally friendly alternatives to business travel and commuting to and from work	Completed
Set up regular update and coordination meetings with Environmental Representatives	In progress
Pilot a green event or conference at the ECB and build a case study for the organisation	In progress
Assess further opportunities to improve environmental data collection and analysis	In progress
Improve and clarify waste recycling instructions across buildings	In progress
Develop together with key stakeholders an ECB guideline for the implementation of green events or conferences at the ECB	In progress

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



Throughout 2019, the ECB successfully engaged in various environmental communication and awareness-raising activities. These included internal and external events such as joint activities and meetings with interinstitutional collaboration networks, workshops and information sessions. By means of these activities, the ECB fostered collaboration with different stakeholders including employees, contractors, European institutions and bodies, national central banks and other external parties.

As in previous years, the ECB participated in the WWF Earth Hour in March 2019 together with millions of people and numerous organisations around the world by symbolically switching off non-essential lights in its buildings to demonstrate its commitment to climate protection. The ECB also organised information sessions during which ECB staff had the opportunity to dive into the science of climate change, its current and expected future impacts and possible ways they can reduce their personal carbon footprint.

In September 2019, the ECB again participated in the European Mobility Week. In order to increase employee awareness regarding the environmental impacts of different modes of transport, the ECB organised a variety of activities related to environmentally friendly mobility. The Green ECB team used information stands to inform staff about the environmental impact of different means of transportation as well as options for more sustainable commuting and business travel. Furthermore, the ECB organised information sessions on online collaboration tools to further reduce emissions from business travel, as well as expert talks and a panel discussion on the topics of electric mobility, cycling culture and the use of space in urban areas. As in

previous years, ECB staff had the opportunity to participate in bicycle safety inspections. During the European Mobility Week, the ECB also launched a commuting survey to be able to better estimate emissions from staff commute and investigate opportunities to further promote environmentally friendly modes of transportation.

In November 2019, the ECB participated in the European Week for Waste Reduction for the first time. The official theme of the event, “Change your ways, reduce your waste!”, highlighted the importance of reducing and properly recycling waste. During the event week, ECB staff had the opportunity to learn more about waste avoidance, recycling and treatment options at dedicated information stands. Moreover, a zero-waste workshop revealed innovative avenues to avoid and reduce waste in everyday life. On the occasion of the European Week for Waste Reduction, the ECB launched a deposit-based system for reusable beverage cups, replacing the remaining single-use cups across its premises and thereby further contributing to waste reduction on site.

In collaboration with relevant stakeholders, the Green ECB team has also initiated the development of an internal guideline for making events and conferences more environmentally friendly. The guideline will assist staff in planning and running events, conferences and meetings at the ECB in a sustainable and resource-efficient way. While a green event pilot that was initially scheduled to take place in May 2020 had to be postponed due to the outbreak of the coronavirus (COVID-19) pandemic, a high-level green event pilot is planned for 2021 in order to set a benchmark for sustainable event organisation and implementation.

The Environmental Representatives, who are delegates of their business areas, also support EMS-related activities alongside the Green ECB team. In their role as direct contact persons for environmental issues in their business areas, the Environmental Representatives foster horizontal and cross-organisational communication on environmental topics and support the Green ECB team in promoting internal environmental initiatives and events. Their involvement is thus essential for the increase of environmental awareness and for the reach of internal environmental communication activities and events. Furthermore, Environmental Representatives independently launch own local initiatives such as drafting newsletters or holding presentations on environmental topics in their respective business areas. Given their active engagement, the Environmental Representatives make a valuable contribution to the success and improvement of the ECB's EMS.



In 2019 the ECB facilitated two meetings of the Environmental Network of Central Banks

The exchange of expertise and environmental best practices via interinstitutional networks is an integral part of the ECB's approach to environmental management. At present, the ECB collaborates with other European institutions and national central banks through the GIME and the ENCB networks. The GIME is composed of a growing number of European institutions and bodies. Its aim is to promote best practices and facilitate the exchange of information regarding EMAS and environmental management in general.

Read more about [EMAS in the European Institutions](#).

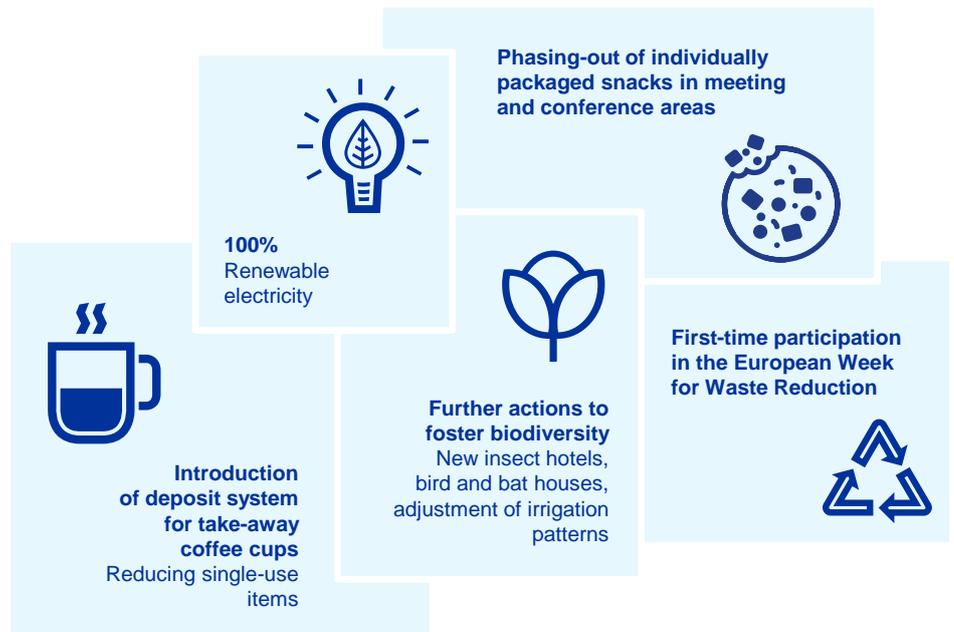
The ENCB currently consists of 14 ESCB NCBs aiming to build a network for sharing best practices and experiences on environmental management as well as jointly participating in environmental awareness-raising events, such as the WWF Earth Hour.

In 2019 the ECB entered into collaboration with the European Parliament in order to compensate their collective residual greenhouse gas (GHG) emissions for the year 2018. A joint public tender procedure has been successfully awarded and the proposed projects are Gold Standard-certified and contribute to numerous Sustainable Development Goals. A new joint tender is planned to be launched in 2020 for the compensation of the residual GHG emissions for the year 2019, again with the participation of additional European institutions in a joint approach. While the

compensation of residual emissions is an important measure that contributes to alleviating the ECB's impact on the environment, the avoidance and reduction of emissions remain the ECB's strategic priority.

## 2 The year in figures

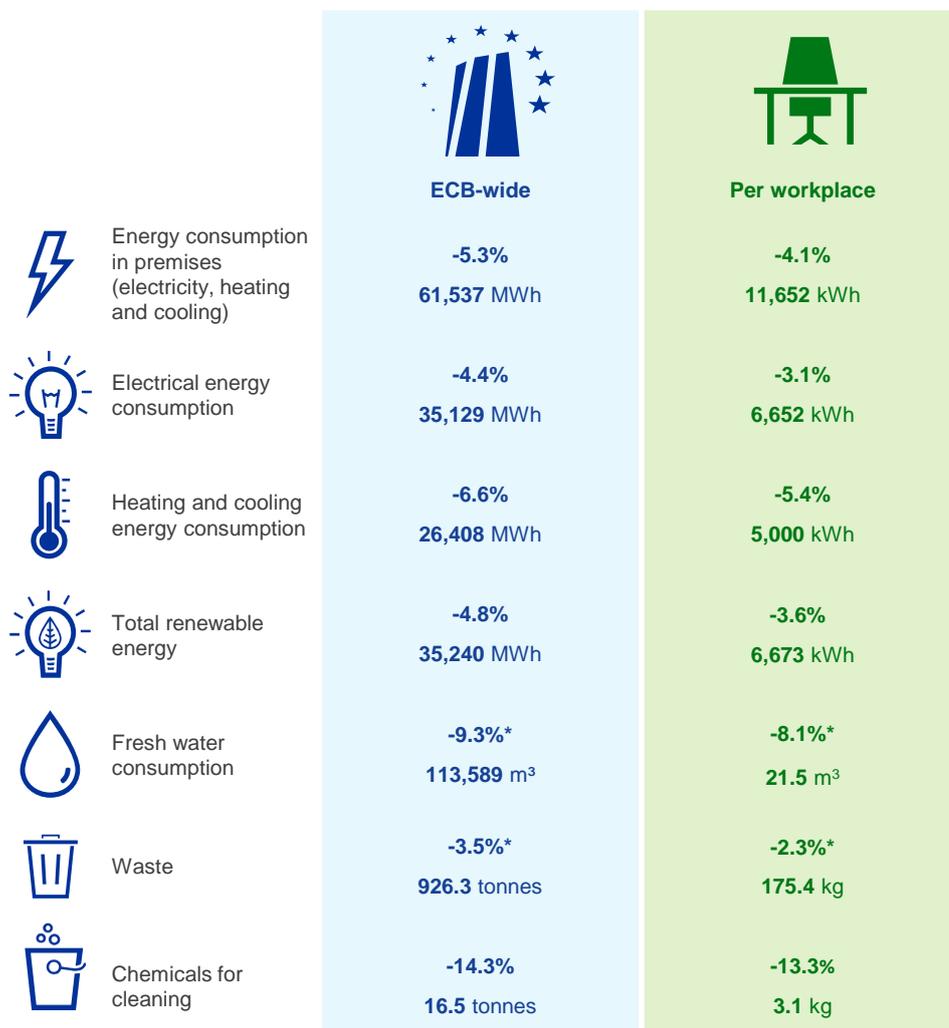
**Figure 1**  
2019 highlights



Source: ECB.

**Figure 2**  
2019 in figures

(percentage change from 2018 to 2019)



Source: ECB.

Notes: \* Owing to retrospective corrections of non-technical water and organic waste figures for 2018, the indicated decrease may not match the values reported in the 2019 ECB Environmental Statement. The adjusted figures and further information can be found in [Chapter 3.3 – Water and waste water](#), [Chapter 3.4 – Waste and recycling](#) and [Chapter 6 – Technical Information](#).

Figure 2 provides an overview of the ECB's environmental performance indicators in 2019. The reported percentages indicate the difference between the 2018 and 2019 environmental data.



5.3% decrease in total energy consumption

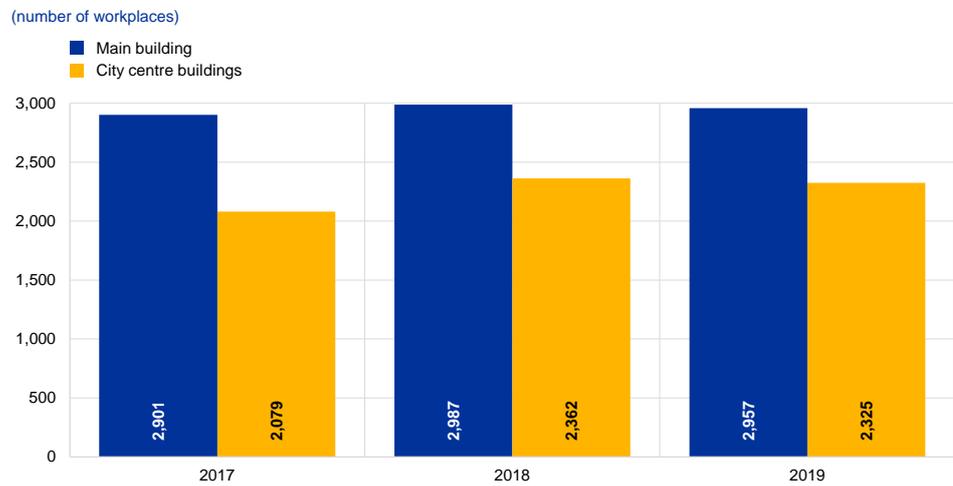
In 2019 the total energy consumption of the ECB decreased by 5.3%. The consumption of electrical energy as well as heating and cooling energy also declined by 4.4% and 6.6% respectively. The trend of declining energy consumption figures is also evident in the energy consumption levels per workplace (i.e. energy: -4.1% per workplace; electrical energy: -3.1% per workplace; heating and cooling: -5.4% per workplace). The reduction of energy consumption at the ECB was facilitated by various factors, such as the optimisation of cooling facilities, the implementation of indirect free cooling of the data centre as well as the further installation of LED lighting.

The ECB's geothermal energy system had been activated in 2018 and continued to operate in 2019. Total renewable energy consumption, covered by electrical and geothermal energy, accounted for 57% of the energy consumption on ECB premises in 2019.

The usage of cleaning agents decreased substantially compared with the previous year (-14.3% in total; -13.3% per workplace). In addition, further reductions could be noted for fresh water consumption (-9.3% in total; -8.1% per workplace) as well as waste generation (-3.5% in total; -2.3% per workplace).

A more detailed description of these and other environmental data developments can be found in [Chapter 3 – Environmental aspects and impact of the ECB's activities](#).

**Chart 1**  
Workplace overview



Source: ECB.

## 3 Environmental aspects and impact of the ECB's activities



The ECB monitors the environmental aspects of its activities and evaluates their impact and development over time. The ECB's environmental aspects were first identified in 2007. They are reviewed on an annual basis in order to adapt to potential changes within and beyond the ECB. This applies specifically to the aspects that have a significant direct or indirect environmental impact.

Close collaboration and exchanges with all relevant business areas take place to ensure legal compliance, avoid environmental risks and further reduce the ECB's environmental impact. In addition, for the rented city centre premises, quarterly reports are submitted that include data related to the operation of the premises as well as aspects related to employee activity, such as energy and water consumption, emissions and waste generation in order to monitor and ensure data quality. Moreover, aspects such as the environmental performance of service providers, purchased goods, business travel, staff commuting and related CO<sub>2</sub> emissions are also monitored and actively managed.

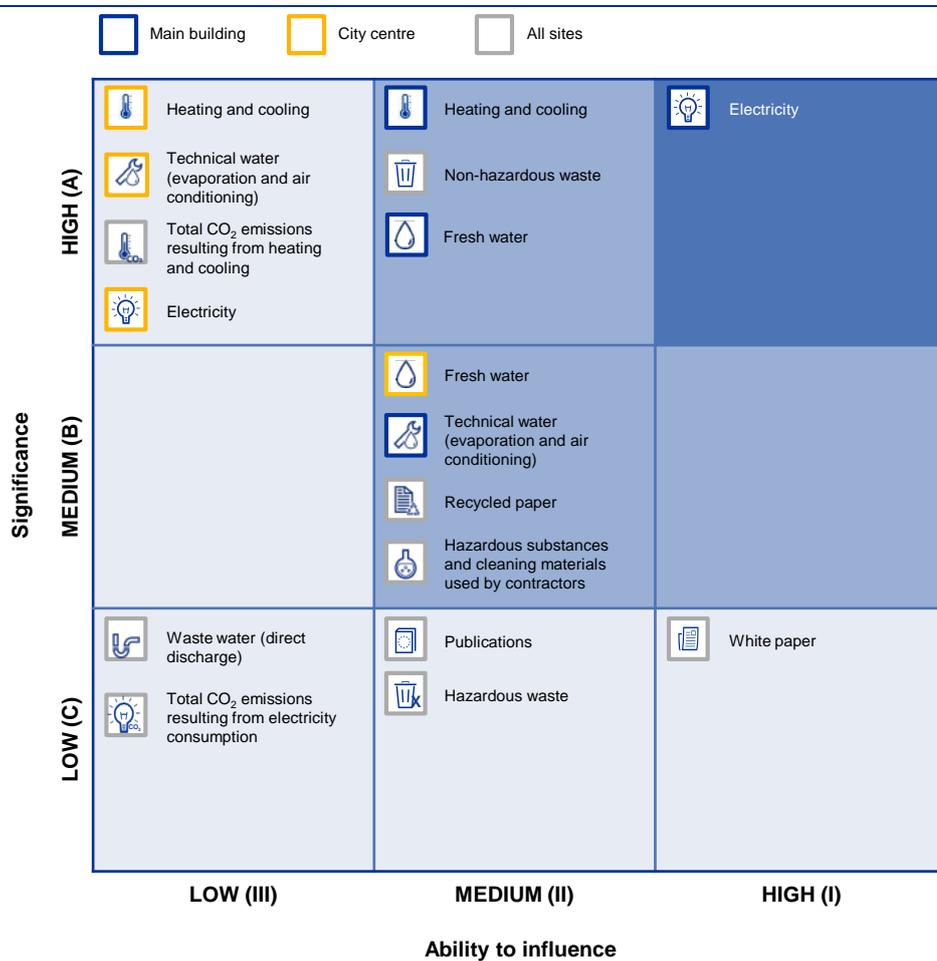
Environmental data are collected and compiled in an environmental inventory to be used in an annual monitoring and analysis of the impact of the ECB's activities. The analysis of the data and environmentally relevant developments forms the basis for defining new measures for the enhancement of the environmental programme. The Green ECB team collaborates with all relevant teams to assess possibilities for further influencing the development of environmental aspects and implementing new environmental objectives and measures.

### Assessment of the environmental aspects

Direct and indirect environmental aspects are regularly evaluated based on two criteria: the possibility to influence them (x-axis) as well as their significance for the ECB's environmental performance (y-axis). The result of the most recent evaluation is presented below. Following the assessment of the ECB's direct environmental aspects, fresh water at the main building has been changed from medium to high significance given that the collection of 2019 water consumption data revealed that although overall water consumption decreased in 2019, closer monitoring of these data is required. More detailed information on water consumption developments can be found in [Chapter 3.3 – Water and waste water](#).

**Figure 3**

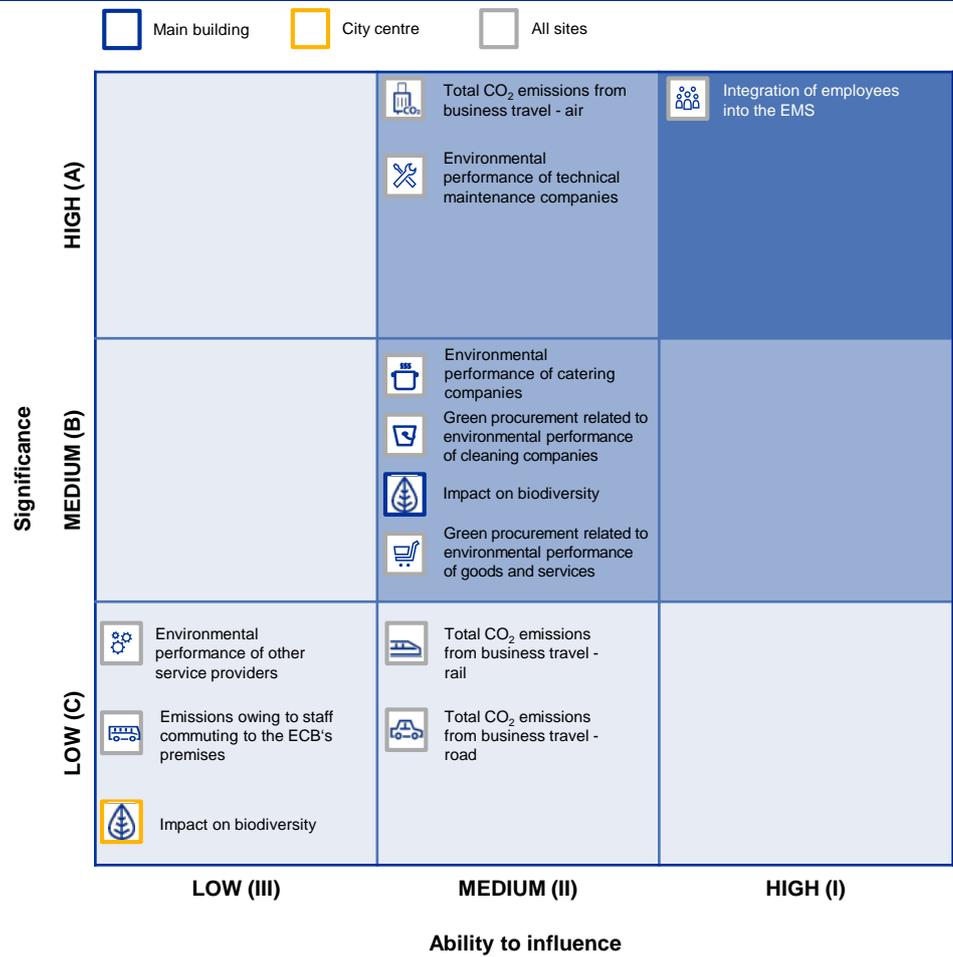
**Assessment of the ECB's direct environmental aspects**



Source: ECB.

**Figure 4**

**Assessment of the ECB's indirect environmental aspects**



Source: ECB.

## 3.1 Energy efficiency



### Objectives Energy efficiency

Type of objective and timeline	Objective and status 2019
<b>Short-term: 2023</b>	Reduce electricity consumption at the main building by 3% (baseline 2018)
	<b>Status 2019: 4.9% reduction compared with 2018</b>
<b>Long-term: 2030</b>	Optimise energy consumption of ECB premises: reduce total energy consumption per workplace by 20% (baseline 2018)
	<b>Status 2019: 4.1% reduction compared with 2018*</b>

Notes: \*The measures below have been adjusted to exclude efficiency measures for the city centre premises as current resource planning does not foresee budget allocation in this direction. Given that the main building is a new building, expected additional efficiency gains here are unlikely to be sufficient to cover for the city centre premises. Energy consumption in the city centre premises also influences the ECB's overall CO<sub>2</sub> emissions (e.g. through natural gas consumption) and the corresponding objective



## Measures Energy efficiency

Measure	Status
Adjust operating hours in the main building: assess feasibility of automatically switching off lights in the main building earlier in the evenings and more frequently during weekends	Completed
Change lighting hours on upper technical floors	Completed
Reuse waste heat from data centres	Completed
Reduce number of electrical flow heaters for warm water in the Eurotower	Completed
Adjust flow temperatures for warm and cold water in the Eurotower	Completed
Adjust temperature limit for defrosting the parking ramp at the main building	Completed
Introduce daytime cleaning for the office areas so office lights do not need to be turned on outside business hours	Completed
Participate in an energy efficiency network for data centres	Completed
Conduct an in-depth analysis of available energy data from the main building to identify further improvement measures	Completed
Assess feasible opportunities to reduce energy consumption of cooling facilities	Completed
Implement free cooling for the data centre	Completed
Assess further opportunities to optimise the operation of parking ramp anti-icing system	Completed
Ensure requirements for environmental gains are included in specifications for new (tenders for) technical equipment, maintenance work, services, etc.	In progress
Evaluate adherence to the European Code of Conduct on Data Centre Energy Efficiency (ECA recommendation)	In progress
Reduce the number of lighting fixtures in the underground parking of the main building and, in the long term, gradually replace them with LEDs	In progress
Further expand data collection and optimise analysis of energy consumption in data centres and at the main building	In progress
Assess possibilities for further reducing the operating times of non-essential technical installations	In progress
Gradually replace lights with LEDs in the main building	In progress
Evaluate possibilities to expand the electric vehicle charging facilities at the main building in line with increased demand	In progress
Gradually implement an automatic overnight and weekend power-off schedule for new coffee machines	In progress
Conduct lighting assessments to evaluate lighting needs and technical setup	Pending

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



## Overview of energy efficiency at the ECB

Total energy consumption at the ECB premises decreased by 5.3% in 2019 compared with the previous year. Reductions in both electrical energy consumption and heating and cooling energy consumption contributed to this decline. Energy consumption per workplace further decreased by 4.1% in 2019.

The outlined developments have been achieved through the continuous improvement of energy monitoring, which provides new insights into energy flows and helps to identify opportunities for further enhancing energy efficiency. Throughout the past year, different energy efficiency measures were already implemented that significantly contributed to the decline in energy consumption:

- cooling of the data centre was improved;
- cooling facilities of the main building and its cooling network were optimised;
- lighting was further substituted with LED lamps;
- further adjustments to lighting hours in different areas were made.

The developments in 2019 positively contribute to the achievement of the ECB's long-term objective to reduce energy consumption per workplace by 20% by the end of 2030.



Total electricity consumption in the main building steadily decreased from 2015 to 2017, stabilised in 2018, and decreased in 2019 by 4.9% compared with the previous year. The positive trend in 2019 is also reflected in electrical energy consumption per workplace (-3.9%), which has been steadily declining since 2015.

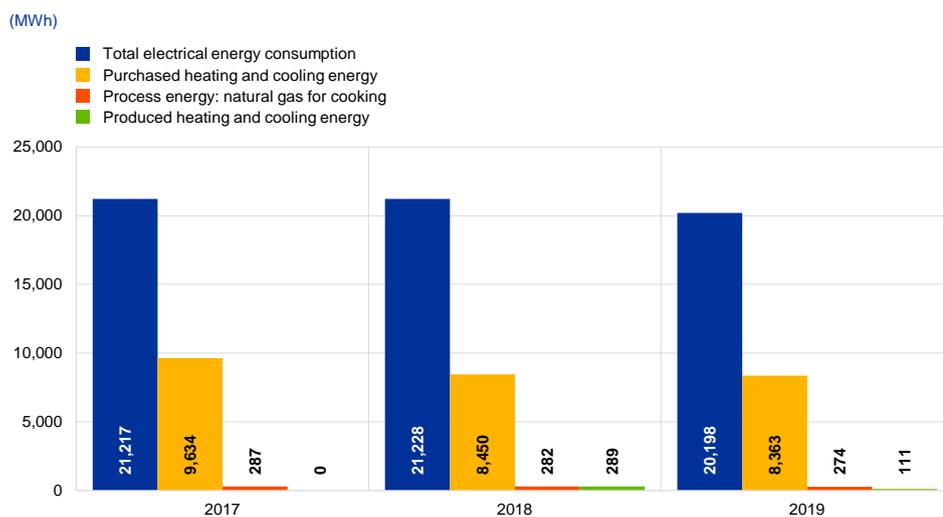
In terms of energy used for heating and cooling in the main building, consumption levels decreased by 3% in 2019. Since 2018, the ECB has been using geothermal energy, which contributes to the heating and cooling demand of the building and consequently reduces the amount of conventional heating and cooling energy purchased.



In the city centre buildings, refurbishment in the years prior to 2018 had been causing varying occupancy periods and levels which resulted in fluctuating energy consumption shares. After having reached a peak in 2018, when the ECB occupied the entire office space of the Japan Center for the first time, electricity consumption on the city centre premises decreased by 3.7% in 2019. Furthermore, heating and cooling energy consumption decreased by 8.2% in 2019 compared with the previous year. These developments are mainly related to finalising remodelling activities which started in 2018 and which allowed energy consumption to be regulated to a standard operating level. The technical environment surrounding the operation of the cogeneration plants resulted in a further decrease in the amount of electricity generated in 2019, and measures to evaluate the situation have been initiated. Despite a decrease in produced electricity, the share of purchased electrical energy decreased by 1.8%.

**Chart 2a**

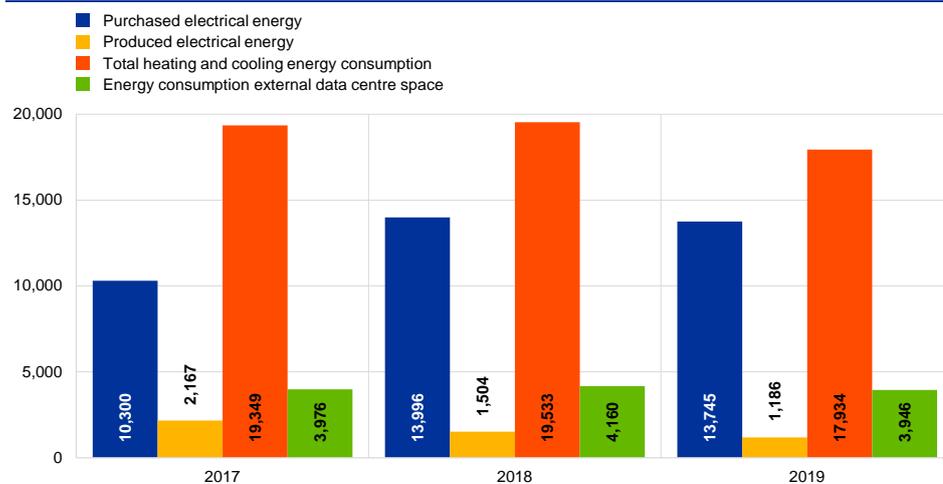
**Energy consumption – Main building**



Source: ECB.

**Chart 2b**

**Energy consumption – City centre buildings**

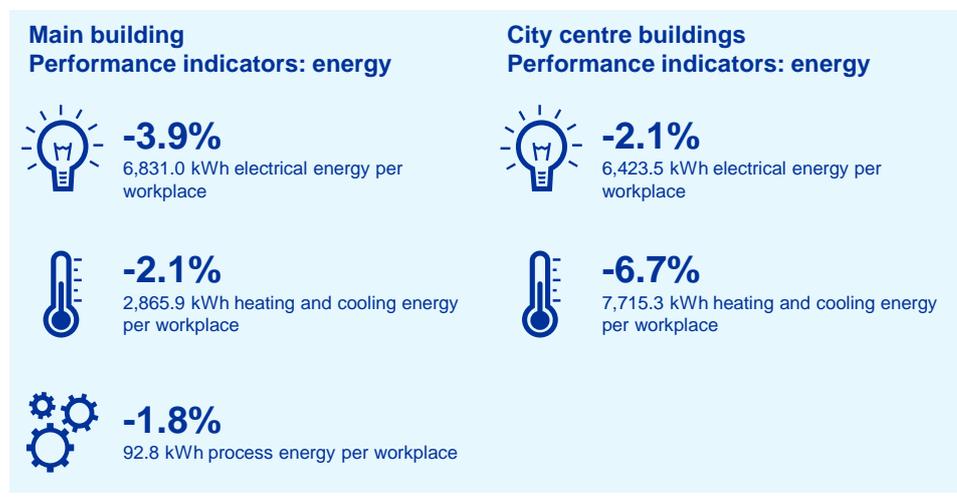


Source: ECB.

In relation to the number of workplaces, energy consumption in the main building and the city centre buildings decreased in 2019 compared with the previous year. It can therefore be concluded that the implemented energy efficiency measures are showing positive effects.

**Figure 5**  
Performance indicators: energy

(percentage change from 2018 to 2019)



Source: ECB.

## 3.2 Material efficiency

  <b>Objectives Material efficiency</b>	
Type of objective and timeline	Objective and status 2019
Short-term: 2023	Increase eco-friendly stationery to 42% of all stationery <b>Status 2019: 37.1%</b>
Short-term: 2020	Reduce single printers in offices to a maximum of 0.5 printers per 10 workplaces <b>Status 2019: 0.8 printers per 10 workplaces</b>
Long-term: 2030	Assess opportunities and gradually pursue feasible possibilities to eliminate disposable plastic items from all customer-facing catering outlets <b>Status 2019: in progress</b>



## Measures Material efficiency

Measures	Status
Transform dedicated supplier's cleaning process to use only non-chemical, 99.9% biodegradable substances in all premises	Completed
Introduce recycled paper towels and tissues in sanitary facilities in all premises	Completed
Implement dosing process that enables the continuous reuse of the same spray bottles to avoid packaging waste from cleaning products	Completed
Implement an internal stationery catalogue for the reuse of surplus stationery	Completed
Introduce online submission and processing of invoices	Completed
Launch app in order to gradually eliminate the use of physical tokens that generate security codes for teleworking access	Completed
Eliminate plastic straws from catering outlets across all buildings	Completed
Convert all conventional markers to markers made from recycled plastic	Completed
Assess the feasibility of implementing a returnable coffee cup scheme across all buildings, which is also harmonised with the existing local scheme in Frankfurt	Completed
Assess possibilities to extend the lifecycle of end-user IT equipment	Completed
Convert conventional laundry detergents to microbiological alternatives to the extent possible	Completed
Gradually replace existing paper towel dispensers with alternatives made from recycled Tetra Pak cartons	Completed
Pilot the use of floor cleaning pads made from recycled plastic	Completed
Identify feasible opportunities to further avoid individually portioned products in conference areas and office kitchenettes	In progress
Request electronic learning materials in training tenders to reduce paper consumption	In progress
Assess further opportunities to adjust availability of supplies and stationery in line with business needs in various areas of the buildings	In progress
Assess opportunities to develop an online collaboration platform that could support document-sharing for events and conferences with external participants	In progress
Ensure the integration of environmental and sustainability criteria in upcoming procurement procedures for office supplies, give-aways and branded merchandise in order to increasingly expand the availability of products and supplies with environmental credentials	In progress
Develop and introduce electronic purchase orders to reduce the amount of printed documents	In progress
Further pursue opportunities to strengthen and extend non-chemical cleaning processes	In progress
Promote possibilities to unsubscribe from unnecessary physical mail and newsletters	In progress
Introduce regular monitoring and yearly reporting for the share of environmentally friendly cleaning products used in catering operations with the aim of identifying possibilities to expand their use	In progress

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



## Overview of material efficiency at the ECB

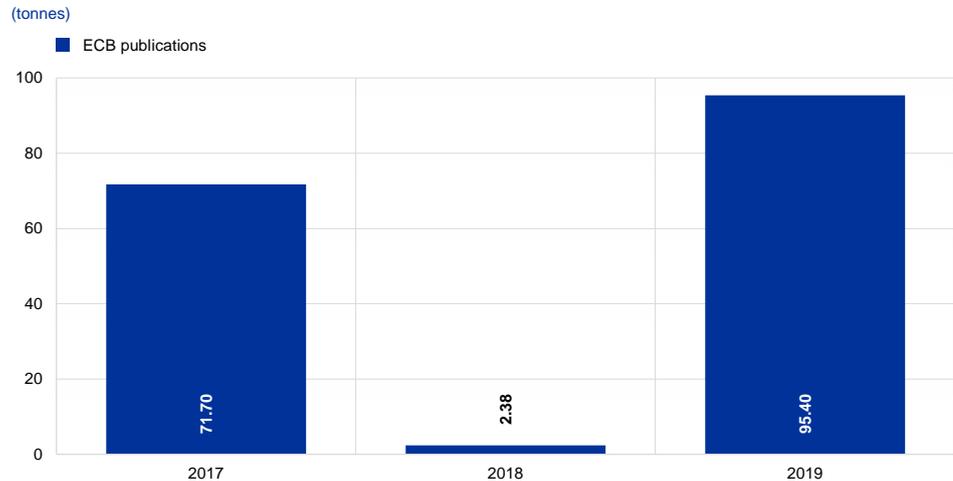
### Publications



Paper consumption for official publications is subject to fluctuations due to the irregular nature of external communication campaigns. As pre-announced in last year's environmental statement, the completion of the Europa series of banknotes that introduced the new €100 and €200 banknotes during 2019 stimulated a rebound of paper consumption for official publications. The printed material consisted mostly of information in all EU languages covering the entire series of banknotes. Overall, paper consumption for official publications at the ECB amounted to 95.4 tonnes in 2019.

#### Chart 3

##### Paper consumption for official publications



Source: ECB.

### Office paper



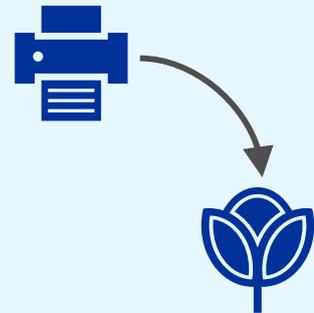
A positive development could be observed concerning office paper consumption which decreased by 57.0% in 2019 compared with the previous year. Office paper

consumption per workplace decreased by 56.4% compared with 2018. The amount of recycled paper in the total office paper consumption was 94.5% and only a small amount of non-recycled paper is still used for printing high-quality materials.

The decrease in office paper consumption is the result of the focus on further promoting and enabling the digitalisation of processes, such as the handling of contracts in public procurement procedures. In 2019 an application was introduced that enables ECB staff to remotely and flexibly access meeting documentation from their ECB mobile devices. The steady reduction of office paper consumption also demonstrates that awareness-raising initiatives such as the “Plants for printers” campaign are showing an effect in sensitising ECB employees to the efficient and careful use of resources.

#### Plants for printers campaign

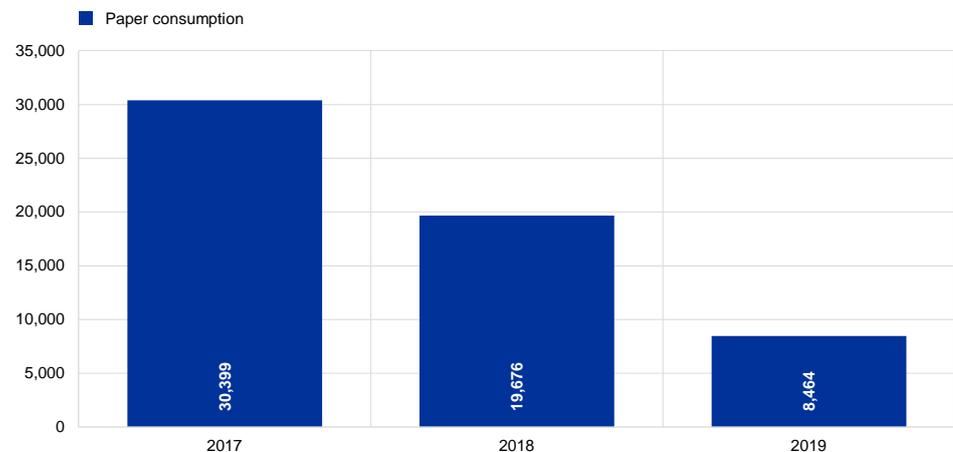
Since 2012 this campaign has aimed at centralising printing activities. It encourages ECB staff to exchange their individual printer for an office plant. After having reduced the number of printers to one printer per ten workplaces by 2018, the ECB is now aiming for a new target in 2020: 0.5 printer per ten workplaces.



See [Chapter – 3.7 Green public procurement](#) for additional information.

**Chart 4**  
Office paper consumption

(thousands of sheets (A4 equivalent))



Source: ECB.



Introduction of a deposit system for reusable coffee cups across all ECB premises to reduce single-use items

Various other activities were carried out in 2019 which contributed to enhancing material efficiency in the ECB's daily operations. One notable change was the replacement of all disposable coffee cups for take-away beverages with a reusable cup deposit scheme across all ECB premises. The deposit system enabled a considerable reduction in single-use items, and staff can also take advantage of the system in participating coffee shops.

Several additional measures were taken to further reduce waste in catering outlets and service areas. For example, individually wrapped snacks were phased out in conference and meeting areas and replaced with bulk alternatives offered in glass jars, single-use cutlery was removed from meal sets, and vending machines and catering outlets now offer refreshments and snacks in reusable jars. However, as a result of strict hygiene requirements related to the COVID-19 pandemic, it is expected that the usage of disposable items will increase again in 2020.

## Cleaning agents

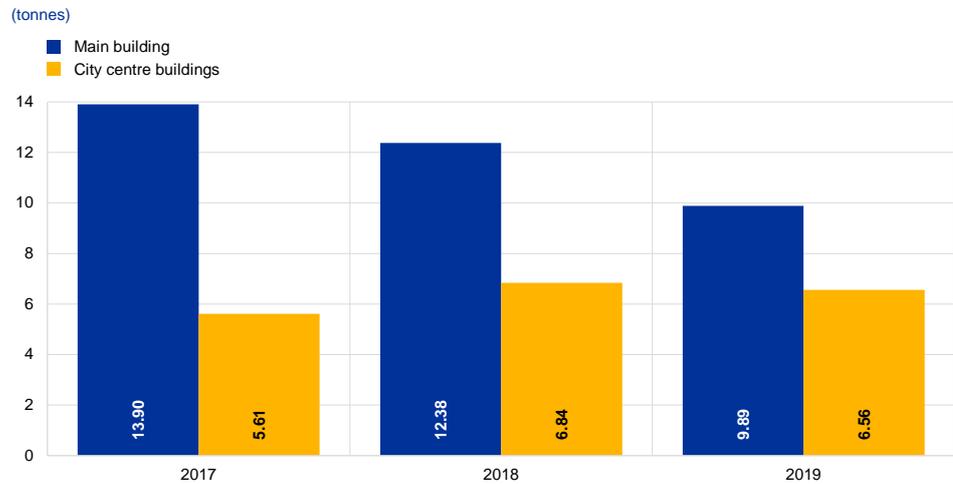


In 2019, the ECB continued using microbiological detergents which are 99.9% biodegradable. The dosing process of cleaning agents and refilling and reusing spray bottles enables the ECB to reduce packaging waste. Moreover, the use of mechanical cleaning methods, such as a floor cleaning machine with a self-cleaning water tank, saves water in day-to-day cleaning. Daytime cleaning furthermore ensures social fairness and contributes to energy savings.

From 2018 to 2019, the use of cleaning agents in the main building decreased by 20.1% compared with the previous year as a result of constant efforts from the ECB's cleaning services. This was achieved by dosing the detergents on site and the service providers' staff gaining more experience with the use of microbiological detergents and the required amounts. In the city centre premises, cleaning agent amounts decreased by 4.0% compared with the previous year. The decline in the city centre buildings is not as pronounced since the cleaning services provider mainly doses cleaning agents in the main building.

In 2019, the introduction of washing bags for microfiber cloths helped prevent microfibers from entering the wastewater stream during the washing process. In addition, non-hazardous laundry detergents and aqueous ozone, an eco-friendly disinfecting solution, were introduced to further reduce the environmental impact of cleaning.

**Chart 5**  
Cleaning agents consumption



Source: ECB.

## Office supplies



The ECB helps staff to easily identify eco-friendly office supplies by highlighting environmental labels and credentials and continuously increasing their share in the ECB stationery catalogue. Eco-friendly office products can be easily filtered in the supply catalogue by keywords such as “planet” or “eco” and can be identified on the basis of the environmental certification labels visible in their description. In 2019 the share of eco-friendly office supplies in the ECB catalogue remained stable at 37.1%.

Moreover, the internal catalogue for reusable stationery is increasingly used within the Bank and has also contributed to a decrease in new external orders. Stationery continues to be handed back to the internal store room and can then be made available for re-ordering from the internal catalogue. Informative material on how to decrease the environmental impact of ordering stationery and office supplies has also been made available to ECB staff.

Moreover, the ECB donates decommissioned IT equipment (i.e. laptops, printers and related accessories) to various charities. Bicycles that are collected during quarterly bicycle parking clearances on ECB premises and remain unclaimed by their owners are also donated to local charities.

## Chemicals for water treatment and cooling agents

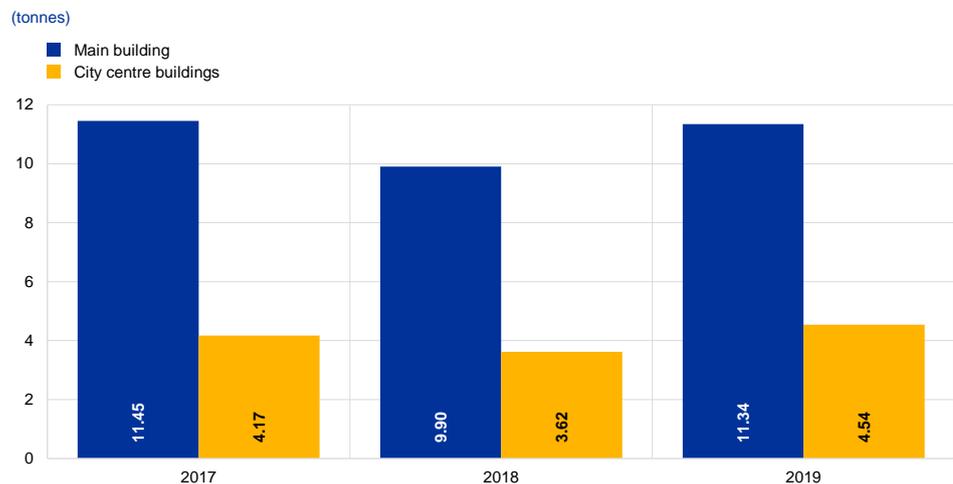


Chemicals used for water treatment and losses of cooling agents are significant environmental aspects that are constantly monitored by the ECB. 11.3 tonnes of chemical substances, mainly composed of salts, were used to soften the water in the technical facilities in the main building in 2019. This represents a 14.5% increase compared with the previous year.

In the city centre premises, an increase of 25.3% in the use of chemicals for water treatment was registered owing to the fact that the automatic dosing system was temporarily out of service, and dosing was consequently carried out manually. In the city centre buildings, the use of chemicals for water treatment amounted to 4.5 tonnes in 2019.

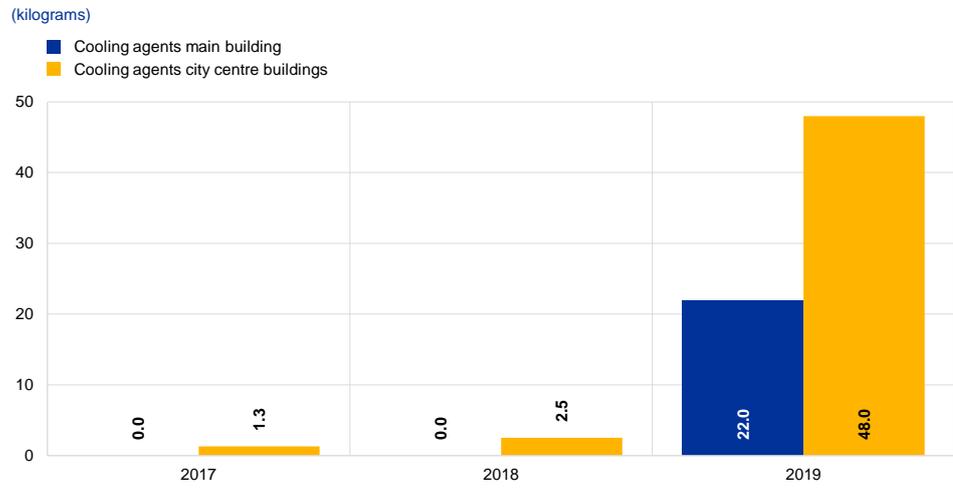
Despite regular maintenance and checks of the cooling installations in the ECB premises, leakages of the cooling systems were nevertheless identified. This resulted in 22 kg and 48 kg of cooling agents having to be refilled in the main building and in the Eurotower respectively in 2019. A detailed assessment of the root causes of the leakages and prevention plans were commissioned in order to avoid similar incidents in the future.

**Chart 6**  
Chemicals used for water treatment



Source: ECB.

**Chart 7**  
Cooling agent losses\*



Source: ECB.

Notes: \* As of 2018 the figures only report losses of cooling agents and not exchanges of cooling agents, as was the case in previous years. This means that no losses were registered in 2017 and 2018 for the main building.

### 3.3 Water and waste water



Water consumption at the ECB consists of technical water, e.g. used for building climate control, and non-technical water, used for sanitary facilities, kitchenettes and the canteens. In the case of the main building, non-technical water also includes water used for irrigating the green areas. The differences in the structure, landscape and number of workplaces of the ECB's premises need to be considered when comparing water consumption figures of the main building and the city centre premises. The charts below show the development of technical and non-technical fresh water consumption of the ECB premises.



Fresh water consumption at the main building declined by 8.5% in 2019 compared with 2018. Technical water consumption in the main building has increased over the past two years due to exceptionally hot summers that required increased cooling of the building. At the same time, non-technical water consumption figures have been fluctuating during the past years. The maintenance of the ECB's green areas, such as meadows, trees, wild flowers and herbs, accounted for a considerable amount of non-technical water consumption. In order to optimise the use of water for the garden, the irrigation patterns have been adapted to the different types of meadows and plants as well as to weather conditions. In addition, the consumption of non-technical fresh water is also reduced as a result of the collection of rain water from the roof of the

Grossmarkthalle. The collected rain water is used for irrigation purposes as well as for sanitary facilities.



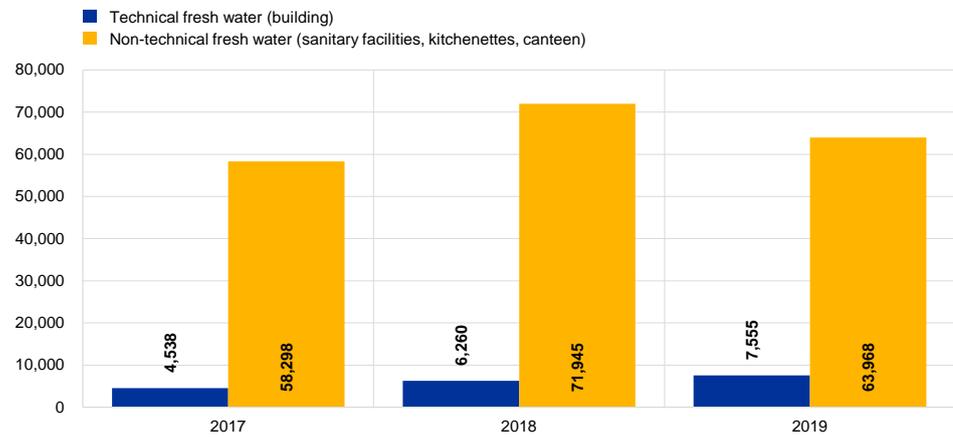
In the city centre buildings, fresh water consumption declined by 10.5%. Technical water consumption has fluctuated over the past years and decreased in 2019, while non-technical water consumption increased. Fresh water consumption per workplace decreased by 9.1% compared with the year 2018.



**Chart 8a**

**Water consumption – Main building\***

(m³)

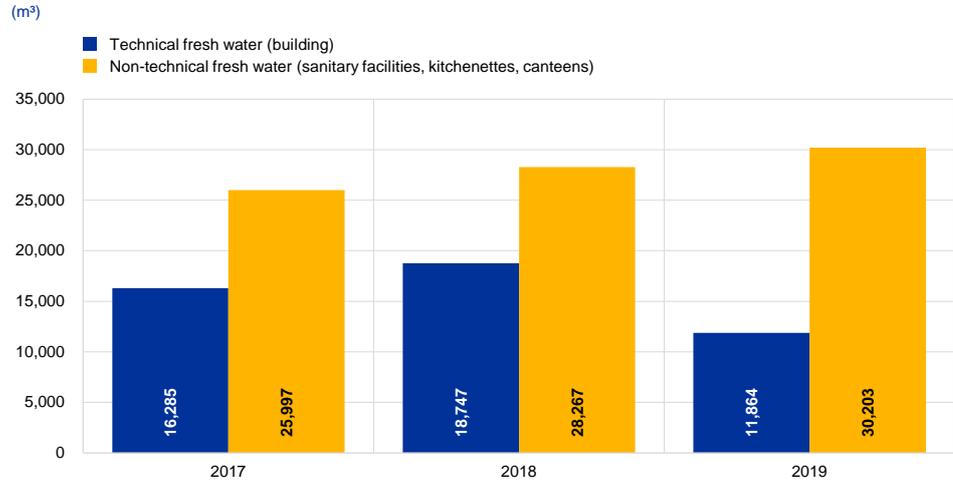


Source: ECB.

Notes: \* The share of non-technical water in 2018 has been corrected on the basis of an improvement in the monitoring and reporting process. It has been changed from 51,678 m³ to 71,945 m³.

**Chart 8b**

**Water consumption – City centre buildings\***



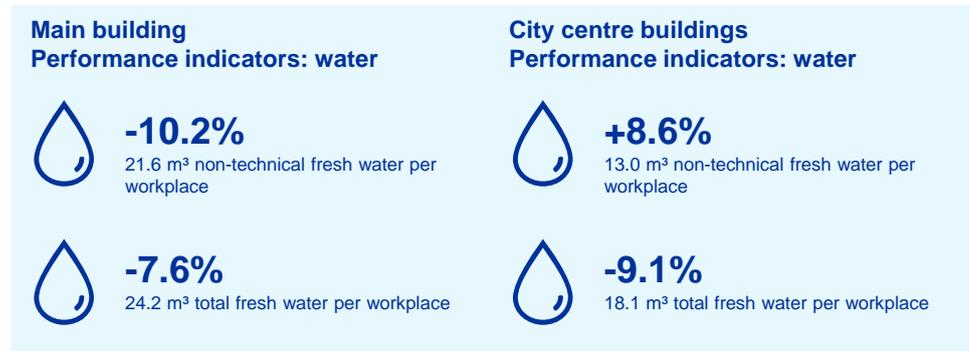
Source: ECB.

Notes: \* The share of non-technical water in 2018 has been corrected on the basis of an improvement in the monitoring and reporting process. It has been changed from 27,785 m<sup>3</sup> to 28,267 m<sup>3</sup>.

**Figure 6**

**Performance indicators: water**

(percentage change from 2018 to 2019)



Source: ECB.

## 3.4 Waste and recycling



### Objectives Waste

Type of objective and timeline	Objective and status 2019
Short-term: 2023	Reduction of the amount of residual waste per workplace by 5% (baseline 2018)
Status 2019: 1.5% increase compared with 2018	



### Measures Waste

Measure	Status
Include provisions for waste collection at building level in rental agreements with new landlords in the city centre buildings, in line with the ECB's waste management concept	Completed
Expand and clarify requirements for separate collection in the latest tender for waste management at the main building	Completed
Replace portioned coffee with coffee beans at the main building, thus reducing the amount of packaging waste	Completed
Enhance overview of waste amounts generated at building level through the launch of quarterly reporting of data from city centre premises	Completed
Identify opportunities to further phase out single-use plastic items	Completed
Assess possibilities to further harmonise the separate collection of recyclable office waste across buildings	In progress
Replace portioned coffee with coffee beans in the city centre premises and thus avoid unnecessary packaging waste	In progress
Expand the separate collection of waste to include dedicated provisions for the used coffee grounds	In progress
Assess opportunities to centralise the collection of the various office waste fractions	In progress
Assess the opportunities to implement a food waste management system to monitor and reduce food waste at each step of the food preparation process	Pending

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



### Overview of waste and recycling at the ECB

Waste reduction, separation and recycling remain important topics within the ECB's environmental management framework. In 2019 approximately 98% of the waste

generated on the ECB's premises was non-hazardous. This waste consisted, among other things, of packaging waste, organic waste, mixed waste, paper and cardboard as well as confidential paper waste, which are all generated on a daily basis. The remaining 2% consisted of 13.5 tonnes of hazardous waste, primarily batteries, and 6.5 tonnes of electronic waste.

In 2018 the ECB set the environmental objective of reducing residual waste by 5% per workplace by 2023. In 2019 the total amount of residual waste remained stable, however residual waste per workplace increased by 1.5%, which can largely be attributed to the decrease in workplaces in 2019.

In order to increase the recycling rate and decrease the amounts of residual waste, the ECB is continuously working on improving and aligning waste management practices and the waste infrastructure across its buildings. Proper and consistent waste separation and related educational and awareness-raising measures remain key to achieving the waste reduction objective.

In 2019 several measures were implemented to raise awareness about best waste management practices and to sensitise staff and stakeholders to the environmental impact of waste. For example, several workshops were held with internal stakeholder groups in order to identify opportunities for improvements to the waste separation system, assess the effectiveness of potential improvement measures and develop new waste labels. In addition, the ECB participated for the first time in the European Week for Waste Reduction, organising different activities for staff, such as a zero-waste workshop and an information stand related to waste management and recycling. Furthermore, a deposit system for reusable coffee cups was introduced in all premises, and disposable plastic items were further reduced in catering outlets as well as in conference and meeting areas. In a further step, the kitchenettes in the main building will be refurbished, adding an organic waste bin to the current waste infrastructure and enabling further improvements in waste management.



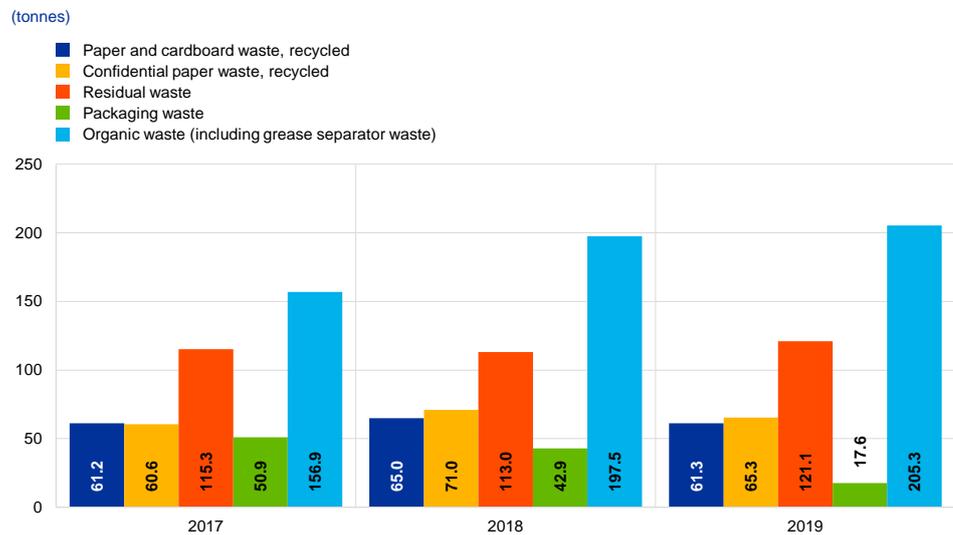
In the main building, the amount of total waste decreased by 7.9% in 2019 compared with the previous year. Waste reductions could be observed in paper and cardboard waste, confidential paper waste and packaging waste. The reduction of packaging waste is related to the improved database provided by a new supplier which allows for a more precise measuring of the amounts collected for recycling. Increases in waste amounts were also noted for residual waste and organic waste, the latter including grease waste resulting from the operations of the staff canteen. When assessing the organic waste amounts, it must be taken into consideration that the canteen service providers at the ECB use fresh fruit and vegetables to prepare meals, which results in high amounts of organic waste from processing the ingredients on site. However, efforts to reduce global food waste are made by sourcing fruit and vegetables that do not make their way into regular supermarkets and grocery chains owing to their non-standard looks, shapes and sizes.



In the city centre buildings, the total generated waste increased by 3.2% compared with the year before. Residual waste and confidential paper waste amounts decreased from the previous year. The slight decrease in residual waste is directly related to the improved separation of individual waste fractions. Moreover, the significant reduction in confidential paper waste (-38.3%) is a positive development linked to different digitalisation measures and the overall reduced need to print sensitive information. Paper and cardboard waste, packaging waste and organic waste amounts increased in 2019 compared with the previous year. Owing to technical issues with the paper and cardboard lifting system during 2019, it was not possible to obtain precise paper and cardboard waste figures for the most part of the year. The paper and cardboard waste figure for 2019 is therefore largely based on estimates. Packaging waste increased by 78.9% (81.8% per workplace). While the packaging waste amounts in the Eurotower remained stable, further improvements in waste separation were implemented in the Japan Center, which led to an increase in packaging waste and a decrease in the residual waste fraction.

The charts below show significant waste fractions and their development in comparison to the previous years.

**Chart 9a**  
Waste and recycling – Main building\*

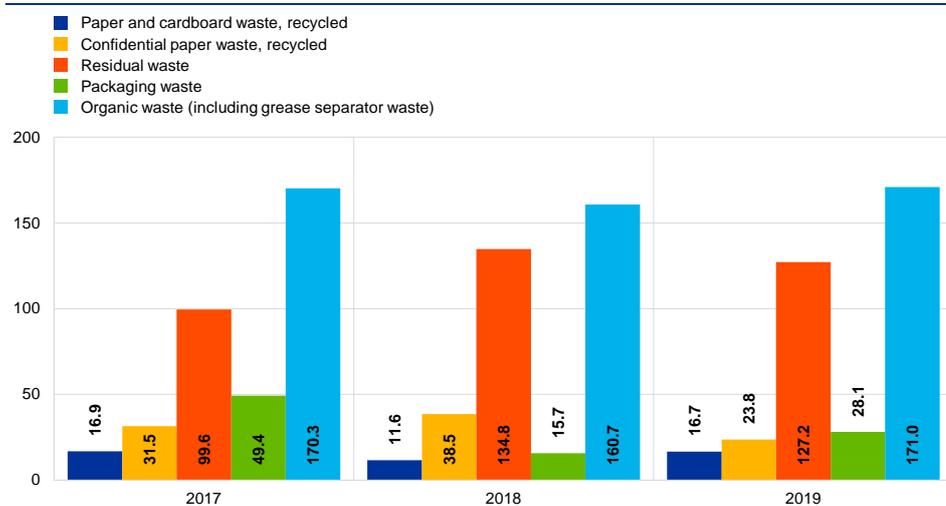


Source: ECB.

Notes: \* The amounts of organic waste for 2017 and 2018 have been corrected on the basis of an improvement in the monitoring and reporting process. They were adjusted from 128.0 tonnes to 156.9 tonnes in 2017 and from 143.7 tonnes to 197.5 tonnes in 2018.

**Chart 9b**

Waste and recycling – City centre buildings\*



Source: ECB.

Notes: \* The amounts of organic waste for 2017 and 2018 have been corrected on the basis of an improvement in the monitoring and reporting process. They were adjusted from 132.1 tonnes to 170.3 tonnes in 2017 and from 122.0 tonnes to 160.7 tonnes in 2018.

**Figure 7**

Performance indicators: waste

(percentage change from 2018 to 2019)



Source: ECB.

## 3.5 Biodiversity



### Objectives Biodiversity

Type of objective and timeline	Objective and status 2019
Medium-term 2023	Evaluate possibilities to further foster biodiversity at the main building, in close collaboration with the landscape architect and other relevant stakeholders
Status 2019: in progress	



### Measures Biodiversity

Measure	Status
Liaise with the European school and kindergarten on biodiversity at the main building	Completed
Increase collaboration with local expert groups working on enhancing biodiversity	Completed
Adjust irrigation patterns to weather to conserve (fresh) water	Completed
Assess possibilities to introduce bee hives on the main building site in order to support declining bee populations	In progress
Support the activities and initiatives of informal staff social groups on urban gardening and beekeeping to the extent feasible	In progress
Assess the possibility to adjust the landscape concept by increasing the variety of insect-friendly plants	In progress

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



### Overview of biodiversity at the ECB

In 2019 the ECB further continued its efforts to foster biodiversity on its premises. Owing to the differences between the ECB's buildings in terms of location and surface area, possibilities to actively foster biodiversity vary between the city centre premises and the main building.

The total area of the main building comprises 11.9 hectares, of which 4.6 hectares (39%) are sealed and 7.3 hectares (61%) are unsealed. Large green areas and water-permeable pathways allow rainwater to infiltrate the ground, minimising the

amount of rainwater discharged into the sewerage system. 6.5 hectares are covered with lawn, meadows and wild flowers.

Rainwater is collected from the roof of the Grossmarkthalle in a storage tank and is used to irrigate the green areas and for some lavatories. As a result, the area effectively discharging rainwater into the municipal sewerage system is reduced to approximately 3 hectares (26% of the total area).

The vegetation at the main building consists of a combination of typical river plants and exotic flora, enhancing the image of a river landscape. Most of the trees are deciduous, adapting to the different seasons. Meadows with widely-spaced trees are interspersed with dense woods, natural hedges, typical riverbank formations and rows of trees reiterating the forms of river valleys. Meadows have been resown in order to promote a bee-friendly mix of wild flowers and herbs. Bird and bat houses as well as insect hotels have been installed to foster biodiversity. They are maintained on a regular basis and promoted internally in order to raise staff awareness about biodiversity protection.

Furthermore, the ECB is evaluating possibilities to install bee hives and additional insect hotels as well as additional bird and bat houses. In collaboration with the newly-established staff-led Ecology Group that consists of ECB staff interested in the environment and sustainability, possibilities to foster biodiversity on site are continuously evaluated and promoted.

Turning to the hardscape, certain areas are paved with cobblestones, which gradually fade into the asphalt or grass areas instead of forming sharp edges. Some of the stones date back to when the Grossmarkthalle still housed Frankfurt's wholesale market. In addition, some of the contoured river valleys are filled with the kinds of stones typically found in such areas.

Read more about the [landscape architecture at the main building](#).

The rented ECB premises in the city centre cover approximately 0.7 hectares, of which 0.5 hectares are considered sealed area and 0.2 hectares are considered green area. Since the city centre of Frankfurt is densely built up, there is no opportunity to create infiltration areas around the rented buildings located there.

## 3.6 Banknotes



The ECB has the exclusive right to authorise the issuance of banknotes within the euro area. At the end of 2019 there were 24.1 billion euro banknotes in circulation.

Since 2002 euro banknotes have been produced jointly by the NCBs of the euro area. Each NCB is responsible for a proportion of the total annual production in one or more denominations.

The ECB seeks to promote good environmental management and to avoid any risk to the health and safety of the general public and the workers involved in the production of euro banknotes. When a manufacturer applies to produce euro banknotes, it must provide the ECB with copies of the ISO 9001, ISO 14001 and OHSAS 1800/ISO 45001 certificates issued by the competent certification authorities. These certificates confirm that the manufacturer's systems conform to the applicable standards at the relevant manufacturing site where the production of euro banknotes is planned to take place.

The ECB's Directorate Banknotes monitors and regulates the banknote production within the euro area. On an operational level, this involves assessing compliance with the ISO 14001 standard and the environmental impact of the production processes of the euro banknotes and their main raw materials. Furthermore, the Directorate also supports further initiatives to reduce the environmental impact of producing euro banknotes.

The ECB's Directorate Banknotes together with the Eurosystem NCBs is implementing policies to minimise the environmental impact of the production of euro banknotes. Policies include increasing the ratio of sustainable cotton in the substrate of the euro notes to 100%.

In 2019 approximately 5,210 tonnes of cotton combers (the main raw material used to produce banknote paper) were used in this process, 57% of which were certified as originating from a sustainable source in environmental and social terms. The ECB is strongly committed to maintaining and improving the sustainability of euro banknotes by gradually increasing the amount of sustainable cotton in euro banknote paper. In this vein, we are also looking at alternative recycling and disposal methods of banknote waste, as well as how to increase the lifespan of banknotes.

As part of our aim to further step up our environmental commitment, we organised a first Environmental Forum, which brought together the ECB, the accredited manufacturers of euro banknotes and the NCBs with the aim of exchanging ideas and best practices on sustainability and environmental topics. Three key areas were identified as topics of focus: waste management and energy efficiency, assessment of the life cycle activities, and sustainable materials. The Forum will continue with the idea to identify potential improvements and solutions regarding sustainable environmental topics within euro banknote manufacturing.

Our ultimate aim in this is to ensure that euro banknotes and their production processes will become more sustainable and environmentally friendly.

Detailed information on the environmental impact of euro banknotes is provided on the [ECB's website](#) under "The Euro" section.

## 3.7 Green public procurement



### Objectives Green procurement

Type of objective and timeline	Objective and status 2019
Medium-term 2023:	Increase the number of procurements including environmental considerations to 8% of the overall number of ECB procurements as an average of the three preceding years
Status 2019: 6.1%	



### Measures Green procurement

Measure	Status
Internal awareness-raising on the sustainable procurement guideline and training of staff on green public procurement	Completed
Introduction of new e-tendering process to reduce paper consumption	Completed
Encourage off-site consulting and similar services through tender requirements aimed at reducing travelling of providers	Completed
Ensure integration of environmental and sustainability requirements for relevant aspects across the value chain of the catering service in upcoming public procurement procedures	In progress
Evaluate the possibilities to carry out specialised training on sustainable procurement for all procurers, regardless of their experience	Pending
Regular revision of the sustainable procurement guideline to include references to products and services covered by the updates of the EU Green Public Procurement (GPP) Handbook and relevant criteria	Pending

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



### Overview of Green procurement at the ECB

The ECB considers environmental impacts when selecting suppliers and purchasing products and services. The Bank designs green procurement criteria in its sustainable procurement guideline, thereby actively working towards increasing the amount of procurements that include environmental considerations. Furthermore, procurement experts provide training to ECB staff in order to inform and raise awareness regarding

sustainability and green procurements and how to design such specifications/tenders. In 2019 these training sessions attracted more than 220 participants.

As external service providers can have an impact on the ECB's environmental performance, they are encouraged to use ecological products and adopt sustainable business practices to deliver services. For instance, cleaning contractors support the ECB's EMS by using eco-friendly and non-hazardous cleaning agents, and by encouraging environmentally friendly practices among their staff. Moreover, catering service providers support the EMS by offering regional, seasonal products, organic, vegetarian and vegan food options and using non-standard sized or shaped fruit and vegetables which would not be sold in grocery stores. Furthermore, continuous efforts are made to gradually reduce the use of plastic in their operations.

In 2019 various measures were implemented to reduce the amount of paper used during procurement processes. These included for instance the full implementation of e-tendering for public tenders above a certain threshold and for certain types of services below that threshold, where offers are submitted electronically. Possibilities are pursued to reduce paper consumption, including for procurement procedures below the above-mentioned threshold. At the other end of the process, invoices are also submitted and processed electronically, drastically reducing the amount of paper and increasing the efficiency of their processing. The ECB procurement team also regularly shares experiences and green procurement approaches in networks and various fora including procurement professionals and counterparts from the NCBs, in order to promote green procurement business practices.

## 3.8 Travel activities



Direct exchange of information and collaboration with the NCBs, national competent authorities and other third parties are key components of the ECB's core business. Participation in international meetings and conferences also requires a certain amount of business travel, which contributes to the ECB's environmental impact in the form of fuel consumption and resulting CO<sub>2</sub> emissions. The ECB's business travel rules and various communication activities encourage ECB staff to favour train over air travel and to substitute business travel with video and telephone conferences whenever feasible. In 2019 total emissions from air travel increased by 8.3%. Emissions from both continental and intercontinental flights increased, while a decrease was noted for emissions from domestic flights. A data analytics project has been initiated to help further refine the collection and monitoring of data related to business travel, raise awareness of the environmental impacts of business travel and support the identification of further possibilities to reduce business travel emissions.



At the beginning of 2018 the ECB launched online collaboration and videoconferencing tools that encourage and enable staff to reduce business travel whenever feasible. In 2019 the Green ECB team organised and implemented several communication and awareness-raising activities via internal channels during the European Mobility Week to sensitise staff to the impact of business travel on the environment and inform them about eco-friendly modes of transportation. As part of the event week, videoconferencing information sessions were offered to further promote their usage. Moreover, a staff survey was launched in order to support the revision of the calculation methodology used for the estimation of emissions from staff commute.



The use of the ECB car fleet is restricted to the members of the Executive Board, the Chair of the Supervisory Board and the Chief Services Officer and is complemented by pool cars for logistical and operational needs. Opportunities to introduce environmentally friendly alternatives in the existing car fleet are continuously assessed in line with market developments.

# 4

## CO<sub>2</sub> emission reduction



### Objectives CO<sub>2</sub> emissions

Type of objective / timeline	Objective and status 2019
<b>Long-term: 2030</b>	Reduction of total CO <sub>2</sub> emissions by 10% (baseline 2018*) <b>Status 2019: 3.3% decrease compared with 2018</b>
<b>Medium-term: 2023</b>	Reduce emissions from business travel by 10% (baseline 2018) <b>Status 2019: 6.9% increase compared with 2018</b>

Notes: \*Due to changes in the ECB's organisational context and reassessment of environmental aspects and impact, it was decided in 2019 to adjust the reference year for objectives and measures to 2018.



### Measures CO<sub>2</sub> emissions

Measure	Status
Improve bicycle parking at the main building and in the Japan Center and introduce regular removals of abandoned bicycles in all buildings to ensure that spaces are available for frequent commuters	Completed
Joint compensation of residual carbon emissions via interinstitutional collaboration with the European Parliament (ECA recommendation)	Completed
Launch CO <sub>2</sub> companion in traveller dashboard showing environmental impact of individual travel activities	Completed
Decrease emissions from commuting by: (i) promoting the environmental benefits of teleworking by eligible staff; (ii) continuing to promote the Job Ticket	Completed
Evaluate opportunities to increase the accuracy in the calculation of staff commute emissions	Completed
Develop a tool that allows meeting organisers to easily calculate the CO <sub>2</sub> savings resulting from conducting meetings online	In progress
Assess possibilities to enhance online collaboration opportunities for external counterparts in the context of high-level meetings and conferences	In progress
Further promote the use and highlight the benefits of online collaboration tools as an option to reduce the need for business travel	In progress
Continue efforts to enhance data granularity related to business travel in order to gain insights into opportunities to reduce travel	In progress
Assess opportunities to further expand the calculation and reporting of emissions from indirect sources such as waste, cleaning agents and water treatment, office supplies or furniture	In progress
Include specifications for an electric alternative in the next tender for the shuttle commute between ECB premises	Pending

Completed = measure completed; in progress = measure in progress; pending = measure still to be implemented.



## Overview of CO<sub>2</sub> emissions at the ECB

The ECB's CO<sub>2</sub> emissions are calculated annually on the basis of the relevant activity data that are collected and compiled in an environmental inventory. Indirect and direct emissions reflected by the data are calculated and allocated to Scopes 1, 2 and 3 in accordance with the Greenhouse Gas Protocol<sup>2</sup>.

Scope	Components
<b>1 – direct emissions</b>	consumption of natural gas consumption of fuel by ECB-owned cars and by the emergency power units loss of cooling agents
<b>2 – indirect emissions</b>	consumption of purchased electrical energy and district heating
<b>3 – indirect emissions</b>	consumption of paper for office use and for ECB official publications and communication materials business travel of ECB staff staff commuting to and from work

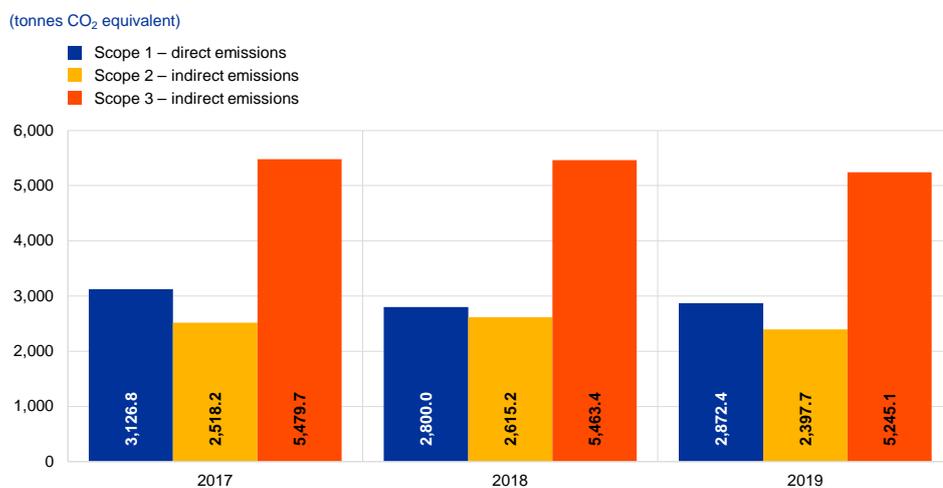
For the calculation of the CO<sub>2</sub> emissions, suitable conversion factors have been defined which are updated on an annual basis. Changes of emission factors in 2019 are displayed in [Chapter 6 – Technical information](#).

The following chart provides an overview of the emission trends related to the ECB's activities.

<sup>2</sup> The [Greenhouse Gas Protocol](#) is one of the most widely used international accounting standards for organisations and businesses wanting to understand, quantify and manage greenhouse gas emissions.

**Chart 10**

**Total CO<sub>2</sub> emissions: Scopes 1, 2 and 3**



Source: ECB.



3.3% reduction  
in total CO<sub>2</sub> emissions

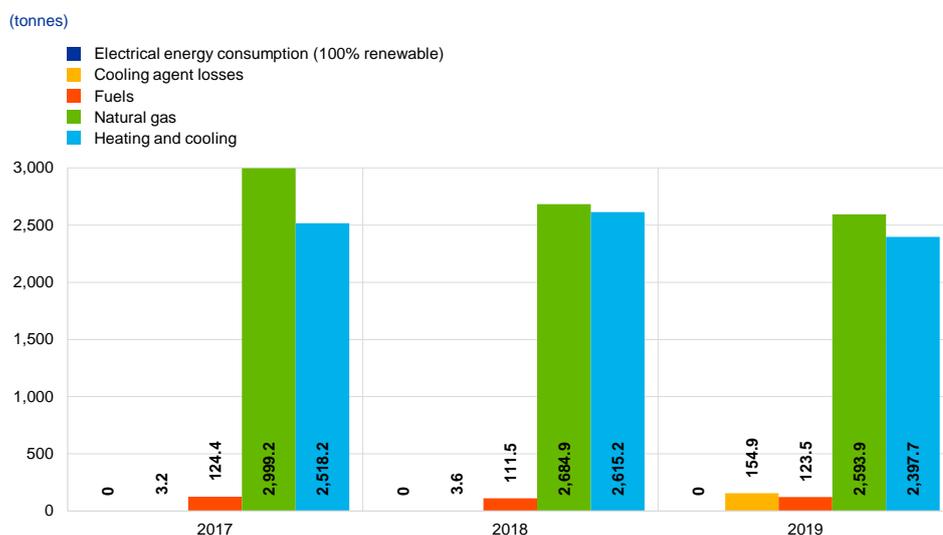
In 2019 total CO<sub>2</sub> emissions related to the ECB's activities declined by 3.3% compared with the previous year. This represents a positive development towards achieving the ECB's objective of reducing its total CO<sub>2</sub> emissions by 10% by 2030, measured at the 2018 baseline. The developments that lead to these outcomes are presented in the following sections.

Scope 1 and Scope 2 emissions together make up approximately half of the ECB's total reported CO<sub>2</sub> emissions. These emissions are directly linked to the operation of the ECB's premises, including for instance the consumption of natural gas, district heating and cooling agent losses. As the ECB has been purchasing 100% renewable electricity since 2016, the reported emissions from electricity consumption equal zero. Nevertheless, reducing overall electricity consumption remains a priority.

The chart below presents the development of Scope 1 and Scope 2 emissions at the ECB.

## Chart 11

### CO<sub>2</sub> emissions: Scopes 1 and 2



Source: ECB.

Notes: Natural gas values for 2017 and 2018 have been marginally adjusted on the basis of an improvement in the monitoring and reporting process from 2,999.0 tonnes to 2,999.2 tonnes in 2017 and from 2,685.0 tonnes to 2,684.9 tonnes in 2018.

Scope 3 emissions include emissions resulting from business travel, staff commuting and paper consumption (in the offices and for external communication). Taken together, these emissions account for approximately half of the ECB's total reported CO<sub>2</sub> emissions.



Business travel is a key aspect in the ECB's EMS and Scope 3 emissions. Here, the largest share of CO<sub>2</sub> emissions stems from air travel, which increased in 2019 as emissions from continental and intercontinental flights grew. Emissions from domestic air travel decreased in 2019. The recent launch of a data analytics initiative is expected to enable deeper insights into business travel activities and their impacts by improving data quality and granularity. In order to raise staff awareness on the climate impact of air travel, the ECB has been making efforts to improve the information provided to users on its travel booking platform to include insights into the environmental impact of travel activities. The platform can also be used as a tool to support the development of awareness-raising events and activities in collaboration with the Environmental Representatives.

With the support of online collaboration tools and the enhanced use of videoconferencing, there is significant potential to enable further reductions in CO<sub>2</sub> emissions by substituting avoidable business travel with web-based communication. Several practical workshops and information sessions on the use of existing online collaboration tools were carried out in 2019 and supported their increased user uptake as recorded at the end of the year.



Approximately 49% of all staff take advantage of the discounted Job Ticket for public transport offered by the ECB

Staff commute to and from work represent another emission source that the ECB actively addresses and reports on. The CO<sub>2</sub> emissions from commuting are estimated on the basis of the results of a survey carried out in 2019 that enabled new insights related to the choices of means of transportation used by ECB staff to commute to and from the office. Compared with the last survey, which formed the basis for previously reported emissions, the 2019 survey revealed an increase in the uptake of environmentally friendly modes of transportation used by staff for their commute. The updated shares for the modes of transportation resulting from the new survey, combined with the slight decrease in workplaces in 2019, resulted in a decline in emissions from staff commute by almost 25%. Nevertheless, as emissions from staff commute are largely based on estimates, this figure should be interpreted with discretion.

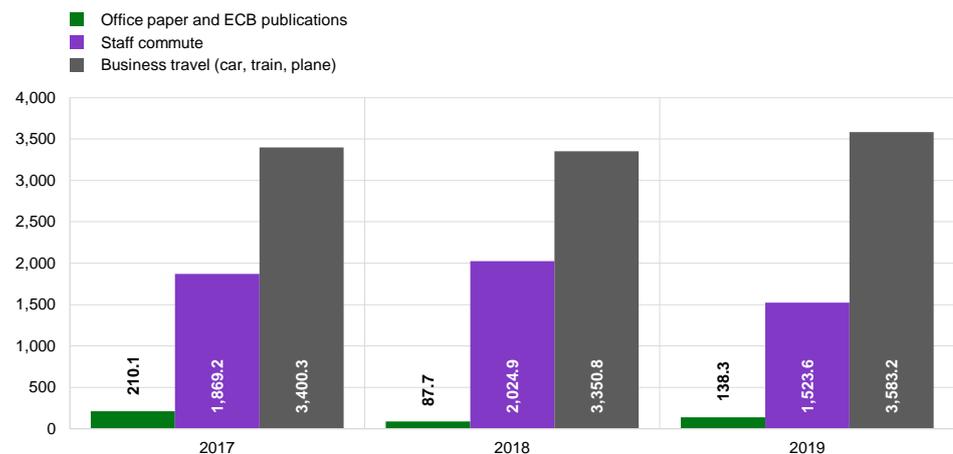
The ECB took the opportunity of its participation in the 2019 European Mobility Week to promote sustainable means of transportation and raise awareness for eco-friendly mobility options among staff.



Finally, emissions from paper used in the offices and for ECB publications and external communication materials are also considered under Scope 3 emissions. While a decrease in CO<sub>2</sub> emissions from office paper consumption could be observed in 2019, emissions from paper consumption for official publications increased compared with 2018. The latter development is related to the publication of information and awareness material for the newly issued euro banknotes, further described in [Chapter 3.2 – Material Efficiency](#).

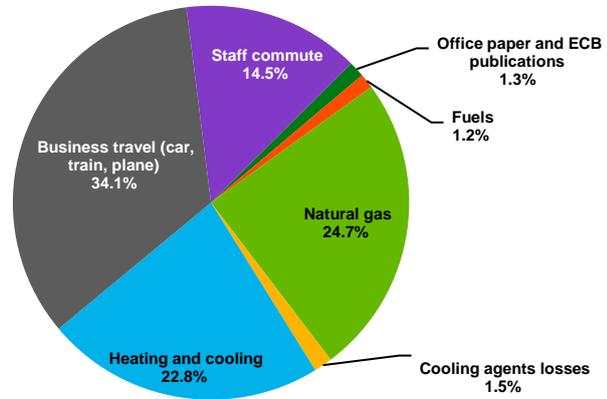
**Chart 12**  
CO<sub>2</sub> emissions: Scope 3

(tonnes CO<sub>2</sub> equivalent)



Source: ECB.

**Chart 13**  
Shares of CO<sub>2</sub> emissions



Source: ECB.  
Notes: Footprint shares amount to 100.1% due to rounding of shares.

In addition to the previously illustrated emissions, the amounts of emitted sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and particulate matter (PM) are also monitored and reported. These specific emissions arise directly from the use of ECB-owned cars, test runs of emergency power units and consumption of natural gas. For the specific figures related to these emissions please refer to [Chapter 6 – Technical information](#).

The ECB continuously assesses and implements measures to avoid and reduce its CO<sub>2</sub> emissions. Furthermore, in 2019 the ECB entered into an interinstitutional partnership with the European Parliament to jointly offset the collective residual CO<sub>2</sub> emissions of the two institutions for 2018. Four additional European institutions intend to join the collaboration for the joint compensation of residual greenhouse gas emissions for 2019.

## 5 Conclusions

The continuous improvement of the ECB's environmental performance and the environmentally relevant developments during 2019 represent an important step towards accomplishing the ECB's environmental objectives and reducing the ECB's overall environmental impact. Some environmental aspects reveal room for improvement, and measures to further limit their negative environmental impacts are being assessed on a constant basis. Overall the ECB's EMS performed well in 2019, and its substantial progress and positive results are also visible in the reported figures.

The positive developments are the result of various environmental improvement measures implemented and of the joint and collaborative efforts of various stakeholders across the Bank that actively contributed to the success of the ECB's EMS. In fact, the achievement of the ECB's environmental objectives and implementation of corresponding measures is highly dependent on the engagement and support of employees and contractors. Their active involvement is essential for achieving further improvement of the ECB's EMS and of its overall environmental performance. Therefore, the collaboration with the Environmental Representatives, contractors and ECB staff together with the sustained support of senior management remain the backbone of the ECB's EMS.

The future development of the ECB's EMS continues to be shaped and challenged by internal and external factors. The outbreak of the COVID-19 pandemic at the beginning of 2020 has caused major changes in the ECB's day-to-day operations and is expected to also influence its EMS. However, the new developments also offer opportunities to implement innovative solutions in adapting to new circumstances which, from an environmental perspective, could enable positive outcomes in the long term. In fact, environmental and sustainability considerations are a key part of discussions and reflections on shaping the "new normal" that take place via various fora at the ECB. This approach, together with the continued efforts of all teams that work towards achieving a sustained reduction of the ECB's environmental impact, signal the ECB's commitment to achieving environmental excellence in its operations.

## 6 Technical information

The previous chapters report and explain the developments and activities of the ECB's most relevant environmental aspects. In line with the requirements of the EMAS regulation, this next chapter aims to provide further details and additional insights regarding the ECB's environmental performance.

The following table shows the variation of the CO<sub>2</sub> emission conversion factors used to calculate the emissions reported in the previous chapters. The difference between the years 2018 and 2019 is based on the latest figures provided by the corresponding sources<sup>3</sup>.

### Conversion factor update

Conversion factor updated	Source	Change 2019/2018
<b>Public transport</b>	TREMOS 6.02	-9.38%
<b>Rail travel, short distance</b>		-3.33%
<b>Rail travel, long distance</b>		-11.11%
<b>Air travel, domestic</b>	2019 Guidelines – DEFRA/DECC's Greenhouse Gas Conversion Factors for Company Reporting	-14.56%
<b>Air travel, short haul</b>		-2.49%
<b>Air travel, long haul</b>		-7.96%
<b>Medium car (petrol – up to a 1.4-2.0-litre engine)</b>		-0.82%
<b>Medium car (diesel – up to a 1.7-2.0-litre engine)</b>		-1.68%
<b>Large car (diesel – 2.0-litre engine and above)</b>		-2.66%

### Other conversion factors

Conversion factor updated	Source	Change 2019/2018
<b>Air emissions – PM Natural gas</b>	GEMIS Database Version 5.0	-1.31%
<b>Air emissions – PM Gasoline</b>		+3.83%
<b>Air emissions – PM Diesel</b>		-0.56%

<sup>3</sup> Conversion factors are provided by: the UK government's Department for Environment, Food and Rural Affairs (DEFRA) and the Department of Energy and Climate Change (DECC); the German Ministry of Environment (Umweltbundesamt); the ECB's energy supplier, Mainova; Deutsche Bahn; the Global Emissions Model for Integrated Systems (GEMIS); and the Institute for Energy and Environmental Research (IFEU Institute).

## Environmental performance indicators (workplace indicators) 2017-2019

Energy consumption	Performance indicators per workplace [kWh/workplace/year]	2017	2018	2019
<b>ECB total</b>	Electrical energy per workplace	6,763	6,867	6,652
	Heating and cooling energy per workplace	5,819	5,286	5,000
	Total energy premises per workplace	12,583	12,153	11,652
<b>Main building</b>	Electrical energy per workplace	7,312.7	7,107.7	6,831.0
	Heating and cooling energy per workplace	3,320.6	2,926.1	2,865.9
	Process energy per workplace	98.9	94.6	92.8
<b>City centre buildings</b>	Electrical energy per workplace	5,996.7	6,562.8	6,423.5
	Heating and cooling energy per workplace	9,306.6	8,270.2	7,715.3

Office paper consumption	Performance indicators per workplace [sheets of A4 equivalent/workplace/year]	2017	2018	2019
<b>ECB total</b>	Office paper per workplace	6,104	3,679	1,603

Water consumption	Performance indicators per workplace [m <sup>3</sup> /workplace/year]	2017	2018	2019
<b>ECB total</b>	Total fresh water per workplace	21.1	23.4*	21.5
<b>Main building</b>	Non-technical fresh water per workplace (sanitary facilities, kitchenettes, canteen)	20.1	24.1*	21.6
	Total fresh water per workplace	21.7	26.2*	24.2
<b>City centre buildings</b>	Non-technical fresh water per workplace (sanitary facilities, kitchenettes, canteen)	12.5*	12.0*	13.0
	Total fresh water per workplace	20.3*	19.9*	18.1

Notes: \*In the ECB Environmental Statement 2019, per workplace water consumption shares for the city centre buildings in 2017 and 2018 had been incorrectly reported as their corresponding 2016 and 2017 values. Furthermore, the shares of non-technical water in the city centre buildings and in the main building in 2018 have been corrected on the basis of an improvement in the monitoring and reporting process, and as a result, total fresh water per workplace figures have been adjusted for the main building, city centre buildings and ECB-wide. For the city centre buildings, non-technical fresh water per workplace was adjusted from 12.0 m<sup>3</sup> to 12.5 m<sup>3</sup> in 2017 and from 12.5 m<sup>3</sup> to 12.0 m<sup>3</sup> in 2018, and total fresh water per workplace was adjusted from 17.8 m<sup>3</sup> to 20.3 m<sup>3</sup> in 2017 and from 20.3 m<sup>3</sup> to 19.9 m<sup>3</sup> in 2018. For the main building, non-technical fresh water per workplace was adjusted from 17.3 m<sup>3</sup> to 24.1 m<sup>3</sup> in 2018 and total fresh water per workplace was adjusted from 19.4 m<sup>3</sup> to 26.2 m<sup>3</sup> in 2018. ECB-wide total fresh water consumption per workplace was adjusted from 19.6 m<sup>3</sup> to 23.4 m<sup>3</sup> in 2018.

Waste generation	Performance indicators per workplace [kg/workplace/year]	2017	2018	2019
<b>ECB total</b>	Non-hazardous waste per workplace	176.1*	176.7*	171.6
	Hazardous waste per workplace	1.13	0.55	2.55
<b>Main building</b>	Paper and cardboard waste per workplace	21.1	21.8	20.7
	Confidential paper waste per workplace	20.9	23.8	22.1
	Residual waste per workplace	39.7	37.8	41.0
	Packaging waste per workplace	17.5	14.4	6.0
	Organic waste (including grease separator waste) per workplace	54.1*	66.1*	69.4
<b>City centre buildings</b>	Paper and cardboard waste per workplace	8.1	4.9	7.2
	Confidential paper waste per workplace	15.1	16.3	10.2
	Residual waste per workplace	47.9	57.1	54.7
	Packaging waste per workplace	23.7	6.7	12.1
	Organic waste (including grease separator waste) per workplace	81.9*	68.0*	73.6

Notes: \*The amounts of organic waste for 2017 and 2018 have been corrected on the basis of an improvement in the monitoring and reporting process. Amounts in the main building were adjusted from 44.1 kg to 54.1 kg in 2017 and from 48.1 kg to 66.1 kg in 2018. Amounts in the city centre buildings were adjusted from 63.5 kg to 81.9 kg in 2017 and from 51.6 kg to 68.0 kg in 2018. As a result, the amounts of non-hazardous waste per workplace changed from 162.6 kg to 176.1 kg in 2017 and from 159.4 kg to 176.7 kg in 2018.

Emissions of CO <sub>2</sub> equivalents	Performance indicators per workplace [kgCO <sub>2</sub> equivalent/workplace/year]	2017	2018	2019
<b>Direct emissions – Scope 1</b>	<b>Direct emissions – Scope 1</b>	<b>627.8</b>	<b>523.5</b>	<b>543.9</b>
	Fuels	25.0	20.8	23.4
	Natural gas	602.2	502.0	491.2
	Cooling agents losses at ECB premises	0.6	0.7	29.3
<b>Indirect emissions – Scope 2</b>	<b>Indirect emissions – Scope 2</b>	<b>505.6</b>	<b>489.0</b>	<b>454.0</b>
	Electrical energy consumption at ECB premises	n/a	n/a	n/a
	Heating and cooling of ECB premises	505.6	489.0	454.0
<b>Indirect emissions – Scope 3</b>	<b>Indirect emissions – Scope 3</b>	<b>1,100.2</b>	<b>1,021.5</b>	<b>993.1</b>
	Business travel (car, train, plane)	682.7	626.5	678.5
	Staff commute to and from work	375.3	378.6	288.5
	Office paper and ECB publications	42.2	16.4	26.2
<b>Total CO<sub>2</sub> emissions</b>	<b>Total CO<sub>2</sub> emissions</b>	<b>2,234</b>	<b>2,034</b>	<b>1,991</b>

Air emissions	Performance indicators per workplace [kg/workplace/year]	2017	2018	2019
<b>Air emissions</b>	SO <sub>2</sub> per workplace	0.005	0.004	0.004
	NO <sub>x</sub> per workplace	0.208	0.172	0.165
	PM per workplace	0.023	0.020	0.019

Air emissions	Total air emissions [tonnes]	2017	2018	2019
Air emissions	SO <sub>2</sub>	0.02	0.02	0.02
	NO <sub>x</sub>	1.04	0.92	0.87
	PM	0.12	0.10	0.10

Biodiversity	Used land [ha]	2017	2018	2019
Land use main building	Total land use	11.9	11.9	11.9
	Sealed area	4.6	4.6	4.6
	Unsealed area	7.3	7.3	7.3
	Nature-oriented area	6.5	6.5	6.5
Land use city centre buildings	Total land use	0.7	0.7	0.7
	Sealed area	0.5	0.5	0.5
	Nature-oriented area	0.2	0.2	0.2

## 6.1 Environmental management programme

### Energy efficiency

Measure	Status	Information
Adjust operating hours in the main building; assess feasibility of automatically switching off lights in the main building earlier in the evenings and more frequently during weekends	Completed	
Change lighting hours on upper technical floors	Completed	
Reuse waste heat from data centres	Completed	
Reduce number of electrical flow heaters for warm water in the Eurotower	Completed	
Adjust flow temperatures for warm and cold water in the Eurotower	Completed	
Adjust temperature limit for defrosting the parking ramp at the main building	Completed	
Introduce daytime cleaning for the office areas so office lights do not need to be turned on outside business hours	Completed	
Participate in an energy efficiency network for data centres	Completed	
Conduct an in-depth analysis of available energy data from the main building to identify further improvement measures	Completed	
Assess feasible opportunities to reduce energy consumption of cooling facilities	Completed	Optimisation of the cooling facilities and network took place with the programming of the building automation system.
Implement free cooling for the data centre	Completed	Indirect free cooling was implemented.
Assess further opportunities to optimise the operation of parking ramp anti-icing system	Completed	Further optimisation possibilities were assessed and would require hardware retrofits to implement further adjustments.
Ensure requirements for environmental gains are included in specifications for new (tenders for) technical equipment, maintenance work, services, etc.	In progress	New technical service provider contract including requirements for environmental management will be in place from July 2020. Spot checks regarding environmental topics such as reporting waste management or hazardous substances will be implemented.
Evaluate adherence to the European Code of Conduct on Data Centre Energy Efficiency (ECA recommendation)	In progress	The ECB remains committed to assess itself against the European Code of Conduct on Data Centre Energy Efficiency and is considering a project for this with timing dependent on prevailing priorities.
Reduce the number of lighting fixtures in the underground parking of the main building and, in the long term, gradually replace them with LEDs	In progress	
Further expand data collection and optimise analysis of energy consumption in data centres and at the main building	In progress	Energy monitoring system has been further developed showing energy consumption details for individual areas.
Assess possibilities for further reducing the operating times of non-essential technical installations	In progress	
Gradually replace lights with LEDs in the main building	In progress	Complete change to LED in the transitional building area and in the restaurant. Planning for Grossmarkthalle still in progress.
Evaluate possibilities to expand the electric vehicle charging facilities at the main building in line with increased demand	In progress	Charging infrastructure will be extended in 2020.
Gradually implement an automatic overnight and weekend power-off schedule for new coffee machines	In progress	
Conduct lighting assessments to evaluate lighting needs and technical setup	Pending	

## Material efficiency

Measure	Status	Information
Transform dedicated supplier's cleaning process to use only non-chemical, 99.9% biodegradable substances in all premises	Completed	
Introduce recycled paper towels and tissues in sanitary facilities in all premises	Completed	
Implement dosing process that enables the continuous reuse of the same spray bottles to avoid packaging waste from cleaning products	Completed	
Implement an internal stationery catalogue for the reuse of surplus stationery	Completed	
Introduce online submission and processing of invoices	Completed	
Launch app in order to gradually eliminate the use of physical tokens that generate security codes for teleworking access	Completed	
Eliminate plastic straws from catering outlets across all buildings	Completed	
Convert all conventional markers to markers made from recycled plastic	Completed	
Assess the feasibility of implementing a returnable coffee cup scheme across all buildings, which is also harmonised with the existing local scheme in Frankfurt	Completed	Deposit system for coffee cups was introduced in all premises.
Assess possibilities to extend the lifecycle of end-user IT equipment	Completed	The lifecycle has been extended for mobile phones and tablets.
Convert conventional laundry detergents to microbiological alternatives to the extent possible	Completed	Eco-friendly laundry washing detergents have been introduced.
Gradually replace existing paper towel dispensers with alternatives made from recycled Tetra Pak cartons	Completed	Dispensers made of recycled Tetra Pak cartons have been installed.
Pilot the use of floor cleaning pads made from recycled plastic	Completed	Pilot use was completed with limited success. The measure will be reconsidered if improved products are available.
Identify feasible opportunities to further avoid individually portioned products in conference areas and office kitchenettes	In progress	Individually wrapped sweets were removed from the conference and meeting areas. Opportunities to phase out further individually portioned items are constantly being assessed.
Request electronic learning materials in training tenders to reduce paper consumption	In progress	
Assess further opportunities to adjust availability of supplies and stationery in line with business needs in various areas of the buildings	In progress	Topic has been addressed via internal communication. On-floor recycling boxes for office supplies and self-service stationery machines are planned to be installed.
Assess opportunities to develop an online collaboration platform that could support document-sharing for events and conferences with external participants	In progress	External access to document-sharing platforms currently in planning.
Ensure the integration of environmental and sustainability criteria in upcoming procurement procedures for office supplies, give-aways and branded merchandise in order to increasingly expand the availability of products and supplies with environmental credentials	In progress	Sustainability criteria are planned to be integrated into tender for office supplies and branded merchandise.
Develop and introduce electronic purchase orders to reduce the amount of printed documents	In progress	
Further pursue opportunities to strengthen and extend non-chemical cleaning processes	In progress	Usage of chemical cleaning agents for cleaning has been phased out.
Promote possibilities to unsubscribe from unnecessary physical mail and newsletters	In progress	Communication via internal channels took place.
Introduce regular monitoring and yearly reporting for the share of environmentally friendly cleaning products used in catering operations with the aim of identifying possibilities to expand their use	In progress	Data are collected on a yearly basis and monitoring of amounts is ongoing. The data collection template has been revised to facilitate analysis.

## Awareness-raising and staff engagement

Measure	Status	Information
60 engaged and active Environmental Representatives in all ECB business areas	Completed	
Approximately 40 presentations on environmental topics given by the Green ECB team and Environmental Representatives	Completed	
Enhance engagement of staff through launching activities focused on new/different topics, such as participation in the European Waste Reduction Week	Completed	European Week for Waste Reduction was implemented at the ECB in November 2019 and accompanied by various staff engagement activities.
Enhance collaboration and exchange of best practices on environmental topics between NCBs	Completed	Regular and ad hoc exchanges take place on topics of common interest, recent developments, challenges and outcomes.
Continue efforts to promote environmentally friendly alternatives to business travel and commuting to and from work	Completed	Various awareness-raising and information sessions took place during the European Mobility Week at the ECB and information on environmentally friendly modes of transport is made available to staff.
Set up regular update and coordination meetings with Environmental Representatives	In progress	One coordination meeting and several workshops related to waste management were carried out in 2019.
Pilot a green event or conference at the ECB and build a case study for the organisation	In progress	Pilot is planned to be implemented in 2021. A concept and proposals for organising and implementing a green event have been developed.
Assess further opportunities to improve environmental data collection and analysis	In progress	Energy monitoring has been further improved and contributes to the achievement of the ECB's energy efficiency targets. Data analytics project has been initiated to help further refine the collection and monitoring of data related to business travel.
Improve and clarify waste recycling instructions across buildings	In progress	New labelling concept for office floor waste bins has been created. Further communication measures are planned.
Develop together with key stakeholders an ECB guideline for the implementation of green events or conferences at the ECB	In progress	Development of guideline for green events and conferences is in progress.

## Waste

Measure	Status	Information
Include provisions for waste collection at building level in rental agreements with new landlords in the city centre buildings, in line with the ECB's waste management concept	Completed	
Expand and clarify requirements for separate collection in the latest tender for waste management at the main building	Completed	
Replace portioned coffee with coffee beans at the main building, thus reducing the amount of packaging waste	Completed	
Enhance overview of waste amounts generated at building level through the launch of quarterly reporting of data from city centre premises	Completed	
Identify opportunities to further phase out single-use plastic items	Completed	Individually wrapped snacks were phased out in conference and meeting areas and replaced with bulk alternatives offered in glass jars. Deposit system replacing single-use coffee cups has been introduced.
Assess possibilities to further harmonise the separate collection of recyclable office waste across buildings	In progress	Remodelling of office kitchenettes to integrate bins for organic waste and coffee grounds is in progress. New waste bin labels have been developed.
Replace portioned coffee with coffee beans in the city centre premises and thus avoid unnecessary packaging waste	In progress	Completed in the Japan Center. Implementation in the Eurotower is currently foreseen for 2020-2021.
Expand the separate collection of waste to include dedicated provisions for the used coffee grounds	In progress	Implementation currently foreseen for 2020-2021.
Assess opportunities to centralise the collection of the various office waste fractions	In progress	Kitchenettes will be refurbished to add bins for organic waste and coffee grounds to the current waste infrastructure.
Assess the opportunities to implement a food waste management system to monitor and reduce food waste at each step of the food preparation process	Pending	

## Biodiversity

Measure	Status	Information
Liaise with the European school and kindergarten on biodiversity at the main building	Completed	
Increase collaboration with local expert groups working on enhancing biodiversity	Completed	
Adjust irrigation patterns to weather to conserve (fresh) water	Completed	Adjustments of the irrigation system based on the type of meadow leading to lower water consumption for gardening green areas.
Assess possibilities to introduce bee hives on the main building site in order to support declining bee populations	In progress	Bee hives will be introduced in 2020.
Support the activities and initiatives of informal staff social groups on urban gardening and beekeeping to the extent feasible	In progress	Planning for raised patches going on; further activities planned for 2020.
Assess the possibility to adjust the landscape concept by increasing the variety of insect-friendly plants	In progress	Dry meadows with bee-friendly natural herbs and wildflowers already created. Additional large insect hotel has been installed. New bird and bat houses are planned.

## Green procurement

Measure	Status	Information
Internal awareness-raising on the sustainable procurement guideline and training of staff on green public procurement	Completed	More than 220 staff members participated in procurement training sessions covering environmental considerations.
Introduction of new e-tendering process to reduce paper consumption	Completed	E-tendering platform was launched in 2019.
Encourage off-site consulting and similar services through tender requirements aimed at reducing travelling of providers	Completed	
Ensure integration of environmental and sustainability requirements for relevant aspects across the value chain of the catering service in upcoming public procurement procedures	In progress	Candidates were asked to include a sustainability concept in their offers and sustainability requirements are included in ongoing tenders.
Evaluate the possibilities to carry out specialised training on sustainable procurement for all procurers, regardless of their experience	Pending	
Regular revision of the sustainable procurement guideline to include references to products and services covered by the updates of the EU Green Public Procurement (GPP) Handbook and relevant criteria	Pending	

## Emissions

Measure	Status	Information
Improve bicycle parking at the main building and in the Japan Center and introduce regular removals of abandoned bicycles in all buildings to ensure that spaces are available for frequent commuters	Completed	
Launch CO <sub>2</sub> companion in traveller dashboard showing environmental impact of individual travel activities	Completed	
Decrease emissions from commuting by: (i) promoting the environmental benefits of teleworking by eligible staff; (ii) continuing to promote the Job Ticket	Completed	
Joint compensation of residual carbon emissions via interinstitutional collaboration with the European Parliament (ECA recommendation)	Completed	Joint carbon compensation with the European Parliament took place in 2019 to compensate for 2018 residual carbon emissions. Compensation in 2020 planned for 2019 residual emissions.
Evaluate opportunities to increase the accuracy in the calculation of staff commute emissions	Completed	A new staff commute survey was conducted in 2019.
Develop a tool that allows meeting organisers to easily calculate the CO <sub>2</sub> savings resulting from conducting meetings online	In progress	Tool is under development.
Assess possibilities to enhance online collaboration opportunities for external counterparts in the context of high-level meetings and conferences	In progress	Possibilities are being assessed and tools are being tested.
Further promote the use and highlight the benefits of online collaboration tools as an option to reduce the need for business travel	In progress	Information and dedicated sessions on online collaboration were offered during the European Mobility Week.
Continue efforts to enhance data granularity related to business travel in order to gain insights into opportunities to reduce travel	In progress	More detailed data for business travel will be made available with the help of the business travel dashboard.
Assess opportunities to further expand the calculation and reporting of emissions from indirect sources such as waste, cleaning agents and water treatment, office supplies or furniture	In progress	Materiality assessment of relevant additional indirect emission sources is in progress.
Include specifications for an electric alternative in the next tender for the shuttle commute between ECB premises	Pending	Although options for electric alternatives have been included in the tender, the measure could not be implemented due to the difficulties of suppliers to provide e-vehicles for their services. Market developments continue to be monitored.

## 7 Environmental verifier's declaration

Environmental verifier's declaration on verification and validation activities

The undersigned, BSI Group Deutschland GmbH, an environmental verification body with the registration number DE-V-0228, accredited and licensed for the areas of "Financial service activities, except insurance and pension funding" (NACE Rev, 2: NACE 64), confirms that it has verified whether the environmental declaration of the European Central Bank (ECB), at its sites at Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany (main building) and at Kaiserstrasse 29, 60311 Frankfurt am Main, Germany and Taunustor 2, 60311 Frankfurt am Main, Germany (city centre), with registration number D-125-00045, meets all the requirements of Regulation (EC) No 1221/2009 of 25 November 2009 as amended by Commission Regulations (EU) 2017/1505 of 28 August 2017 and 2018/2026 of 19 December 2018 of the European Parliament and of the Council, on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).

The signature of this validation confirms that:

- the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009 as amended by Commission Regulation (EU) 2017/1505 and 2018/2026;
- the result of the verification and validation confirms that there is no evidence of non-compliance with applicable environmental legislation;
- the data and information in the environmental statement give a reliable, credible and truthful picture of all the organisation's activities within the scope specified in the environmental statement.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a competent body under Regulation (EC) No 1221/2009.

This document shall not be used as a standalone piece of public communication.

Frankfurt am Main, 30 June 2020



Dr Rainer Feld

BSI Group Deutschland GmbH Umweltgutachterorganisation

Environmental verification body

(DE – V – 0228)



#### **Disclaimer**

This update of the ECB's environmental statement provides information to the general public and other interested parties about the environmental performance and activities of the European Central Bank (ECB) in 2019. It can be found on the ECB's website (see the page entitled "[Environmental protection at the ECB](#)").

The ECB was first validated under the EU Eco-Management and Audit Scheme (EMAS) in 2010. This environmental statement, which is the eleventh to be produced within the EMAS validation cycle, is a follow-up to the consolidated environmental statement for 2019. It is only complete when read together with this publication and contains updated data for the year 2019.

This environmental statement was drafted in accordance with EMAS standards according to Regulation (EC) No. 1221/2009 and the updated annexes of the EMAS Regulation according to Regulation (EC) 2017/1505.

© European Central Bank, 2020

Postal address 60640 Frankfurt am Main, Germany  
Telephone +49 69 1344 0  
Website [www.ecb.europa.eu](http://www.ecb.europa.eu)

All rights reserved. Reproduction for educational and non-commercial purposes is permitted provided that the source is acknowledged.

For specific terminology please refer to the [ECB glossary](#) (available in English only).