EEA Environmental Statement 2021

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European Environment Agency

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This environmental statement provides information to the general public and other interested parties on the environmental performance and activities of the EEA. It is published on the EEA's website. The EEA was first validated under the EU Eco-Management and Audit Scheme (EMAS) in 2005 ([1]). This environmental statement contains updated data for the year 2021.

EMAS

VERIFIED ENVIRONMENTAL MANAGEMENT

REG.NO.DK-000244

([1]) Bureau Veritas is the verifier of the EEA's annual environmental statement and is registered under the Danish Accreditation Fund, DANAK, DK-6002.

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Key messages

- The EEA's environmental performance in 2021 was still heavily influenced by the COVID-19 pandemic, which resulted in considerably lower environmental impacts compared with the targets for electricity consumption, paper consumption and CO_2 emissions from business travel and meetings. Like 2020, the target for the EEA's waste generation was not achieved because of increasing amounts of paper, plastic and, most strikingly, electronic waste generated as a result of the renovation of the premises at Kongens Nytorv 6.

- The EEA has been on track to achieve most of its environmental targets since 2017, for example in paper consumption (office paper consumption and external printing of publications) and electricity consumption (central computing, server cooling and staff-related electricity consumption). Yet, the benchmark of excellence set out in the Commission's sectoral reference document for public administration was not achieved in these areas in the years 2017, 2018 and 2019 — nor in 2020 and 2021 during the pandemic — when total energy use in the Kongens Nytorv 6 premises is considered.

- The EEA's electricity is 100% renewable, mainly derived from wind energy. CO_2 emissions related to staff business travel and visitors' travel are offset. The offsets are used to support Gold Standard-certified energy efficiency projects in Africa. Because of the COVID-19 pandemic, the EEA temporarily stopped almost all business travel and physical meetings at its premises as of March 2020, which resulted in a reduction in CO_2 emissions of 98% compared with the target in 2021.

- The EEA is aiming to become a climate-neutral organisation and commissioned a consultancy project to support the development of potential pathways to achieve this goal. In January 2022, the EEA's senior management team endorsed a 'high-ambition-level pathway', which proposes reducing the EEA's greenhouse gas emissions by more than 50% by 2030 compared with 2019.

- The EEA is committed to supporting other EU agencies on the path to sustainability and used the EEA's chairmanship of the EU Agencies Network in 2021 to widely promote climate neutrality in public administration organisations in numerous presentations and workshops throughout the year.

- The COVID-19 pandemic was a catalyst for developments that otherwise might have taken several years: the paperless office, for example, and the widespread use of videoconferencing as a replacement for physical meetings. On the way out of the pandemic, it will be important to translate useful practices into a 'new normal' and to minimise potential rebound effects, for example increased paper use if people return to previous printing practices, or rebound effects associated with increased teleworking, such as the potentially greater environmental impact of the home office. The 2022 environmental management programme reflects these considerations in its action plan and targets.

1 Introduction

The EEA's annual environmental statement report for 2021 conforms to requirements stipulated in the EU Eco-Management and Audit Scheme (EMAS) Regulation ([2]). It contains information on the EEA's environmental management system (EMS), its environmental performance in the year 2021, and the updated environmental targets and an action plan for 2022. The EEA has published an annual environmental statement on its website since 2009.

1.1 The EEA's mission and context

The EEA is a body set up under Regulation (EC) No 401/2009 of the European Parliament and the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network (Eionet). The EEA is a decentralised agency of the EU and mandated with the task of providing sound, independent information on the environment. It is a major information source for those involved in developing, adopting, implementing and evaluating environmental policy and for the general public.

The Agency is located centrally in Copenhagen and currently rents two buildings, Kongens Nytorv 6 (KN6) and three floors of Kongens Nytorv 8 (KN8), which form one site. The premises date back to the 19th century and are labelled a 'D' category building by the Danish Energy Agency. The number of staff is approximately 280, including in-house consultants.

The city of Copenhagen follows a climate plan and is committed to becoming carbon neutral by 2025 (Copenhagen Municipality, 2021) (see also Box 1). This will also improve the environmental performance of the EEA, which purchases the city's energy mix for electricity and heating and complies with the local regulatory framework of the city of Copenhagen.

Although the EEA is located in Denmark, its activities focus on supporting its stakeholders at European and international levels, as well as the general public. This leads to a high volume of business travel, with staff attending meetings across Europe, as well as participants from across Europe travelling to meetings and conferences organised by and held at the EEA's premises. Because of the COVID-19 pandemic, the EEA temporarily stopped almost all business travel and physical meetings at the EEA's premises in March 2020.

As an information and knowledge provider, the EEA develops various products, including environmental reports and assessments, data and maps, briefings, press materials and social media campaigns, to communicate with its stakeholders. With a communication strategy in place that favours a reduction in printed reports, increasingly these types of products are designed and published online, although some reports are printed and disseminated on demand.

([2]) Commission Regulation (EC) No 1221/2009 amending Annex IV of the EMAS IV Commission regulation (EU) 2017/1505 (https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32009R1221) accessed 28 June 2022.

Box 1 CPH 2025 climate plan and targets

Copenhagen aims to become the first carbon-neutral capital city in the world by 2025.

The underlying pillars of the climate plan and their respective targets are critical for reaching carbon neutrality by 2025:

Energy consumption

- 20% reduction in heat consumption
- 20% reduction in electricity consumption in commercial and service companies
- 10% reduction in electricity consumption in households
- Installation of solar panels corresponding to 1% of electricity consumption by 2025

Energy production

- District heating in Copenhagen is carbon neutral
- Electricity production is based on wind and sustainable biomass and exceeds total electricity consumption in Copenhagen
- Plastic waste from households and businesses is separated
- Organic waste is converted to biogas

Mobility

- 75% of all trips in Copenhagen are on foot or by bike or public transport
- 50% of all trips to work or school in Copenhagen are by bike
- 20% more passengers use public transport than in 2009
- Public transport is carbon neutral
- 20-30% of all light vehicles run on new fuels
- 30-40% of all heavy vehicles run on new fuels

City administration initiatives

- Reduce energy consumption in municipal buildings by 40%
- Municipal new buildings up to 2015 meet the requirements of the 2015 classification and up to 2020 meet the requirements of the 2020 classification
- The city of Copenhagen's vehicles run on electricity, hydrogen or biofuels
- The energy consumption of street lighting in Copenhagen is halved
- A total area of 60,000m^2 of solar panels is installed on existing and new municipal buildings

Source: Copenhagen Municipality (2021)

2 Environmental management system

The EEA's environmental management system (EMS) is an integral part of the management plan and is designed to make its environmental responsibilities clear to employees. Staff members are encouraged to actively engage in projects that will lead to positive environmental impacts. New employees receive an introduction to the EEA's EMS and several complementary activities exist to further inform staff about how to improve the EEA's environmental performance.

The EEA's EMS is set up in accordance with the requirements of the EU Eco-Management and Audit Scheme (EMAS) Regulation (EMAS IV) ([3]) and the EN ISO 14001:2015 standard. It was registered under the EMAS in 2005. The EMS is part of the EEA's quality management system. The management and procedures of the EMS are documented in the *EEA environmental management handbook* (EEA, 2021), which is available internally on the EEA's intranet.

2.1 Environmental policy

The EEA's environmental policy describes the Agency's strategic direction in terms of its environmental performance. It provides a framework for environmental targets and actions and is adopted by the Executive Director. The EEA adopted its first environmental policy in 2004.

Under the European Green Deal, Europe's ambition to become the first climate-neutral continent will need to be adopted by all sectors of the economy, as well as by EU bodies and institutions. The European Commission has announced its goal to become climate neutral as an institution by 2030. It called on all the other institutions, bodies and agencies of the EU to work with it and put forward similar ambitious measures. Consequently, in November 2020, the Executive Director decided to raise the EEA's climate ambitions, with the aim of it becoming a climate-neutral organisation and supporting other EU agencies on the path to sustainability (see Box 2).

To deliver this increased ambition, the EEA engaged the consultancies Ramboll and CO2logic to support the development of a roadmap towards climate neutrality in 2021. The consultancies have assessed the EEA's carbon footprint and proposed two different pathways towards climate neutrality: a high-ambition-level pathway and a medium-ambition-level pathway. In January 2022, the Executive Director endorsed the high-ambition-level scenario, which assumes that more than 50% of the EEA's greenhouse gas emissions will be reduced by 2030 compared with 2019 levels (see Annex 1). Specific measures to achieve cuts in greenhouse gas emission are under consideration and will be prioritised and approved on an annual basis as part of the EEA's environmental management activities.

The EEA is currently developing an improved governance system that will help ensure coherent and efficient implementation of greenhouse gas mitigation measures in areas such as building management, staff travel, 'new ways of working', visitor travel and the purchase of goods and services.

2.2 Legal requirements related to the environment

The EEA's legal framework is based on EU law and, in the absence of relevant provisions in EU law, on Danish law. Concerning the direct environmental impacts of the Agency's operations, the relevant regulations for compliance purposes are mainly those related to water, energy and waste management. Concerning indirect impacts, the relevant regulations are mainly those related to environmental information management and public procurement. The relevant regulations, and the status of the EEA's compliance with them, are reviewed annually by the EEA's legal adviser who confirms that the EEA is complying with them.

([3]) Commission Regulation (EU) 2017/1505 amending Annexes I, II, III to Regulation (EU) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community ecomanagement and audit scheme (EMAS) (https://eur-lex.europa.eu/legalcontent/ EN/TXT/PDF/?uri=CELEX:32017R1505&from=EN) accessed 20 June 2022.

Box 2 The EEA's environmental policy

The European Environment Agency (EEA) is an agency of the European Union mandated to help achieve significant and measurable improvement in Europe's environment and to support sustainable development. We aim to provide trusted and actionable knowledge for informed decision-making on environment and climate priorities and solutions, in line with Europe's policy ambitions.

In that role we recognise that we have a special responsibility when it comes to managing our own environmental performance. Like all organisations we consume natural resources and impact the environment through our daily operations. In order to minimise these impacts and continually improve our performance, we have in place an environmental management system, which complies with the Eco-Management and Audit Scheme (EMAS).

Our goal is to become climate neutral and resource efficient. In that context we are committed to:

- continuously improving our energy and material efficiency;
- maintaining staff awareness and understanding of work-related environmental issues;
- encouraging the sharing and implementation of ideas for environmental improvement;
- making use of the Agency's own data, experience and accumulated knowledge in managing environmental performance;
- influencing and inspiring other EU bodies and institutions in their environmental endeavours; and
- complying with all environmentally relevant legislation and regulations of our host country.

This environment policy covers the Agency's operations and staff, also when on missions. The policy also applies to all other persons working at the Agency's premises.

April 2022

2.3 Environmental targets and the management programme

For each significant environmental impact (electricity consumption, paper consumption, etc.), the environmental management programme details the source of the impact, an action plan and annual targets, also referred to as performance indicators. The environmental targets are monitored and annually updated by the EMAS coordinator, supported by the EMAS team. The Executive Director adopts the environmental management programme as part of the annual environmental management review. The adopted programme is then published as part of the annual environmental statement report (see Chapter 5).

Improving the environmental performance of the EEA has wide-reaching co-benefits for our shared environment and the planet and contributes to the UN 2030 agenda for sustainable development (Table 1).

Table 1 **EMAS targets supporting the Sustainable Development Goals**

SUSTAINABLE DEVELOPMENT GOALS EMAS objectives	2	3	6	7	11	12	13	14	15
To reduce electricity consumption									
To reduce water consumption									
To promote responsible use of paper									
To promote green public procurement									
To promote sustainable food and to combat food waste									
To reduce carbon emissions									
To reduce waste and to improve waste sorting									

2.4 Environmental impacts of the EEA's activities

The EEA's activities have both direct and indirect impacts on the environment. In its comprehensive environmental review in 2017, the EEA identified the following significant aspects, which are reviewed at least once a year as part of the environmental management review. In 2021, the EEA's servers were relocated to an external data centre; therefore, monitoring of the electricity used for data storage and cooling of the information technology (IT) servers as part of the EEA's total electricity consumption was discontinued.

2.4.1 Direct environmental aspects

Direct environmental aspects are defined as activities, products and services that affect the environment and over which the organisation has direct management control, including:

- energy use for heating and electricity consumption (e.g. lighting, canteen operations and all electrical equipment) in both buildings Kongens Nytorv 6 (KN6) and Kongens Nytorv 8 (KN8);
- water consumption and waste water disposal (canteen, cleaning, toilets/showers);
- paper consumption — for in-house printing and also externally for the printing of EEA publications and exhibition materials;
- waste generation and its separation (electronic, plastic, glass, organic, household, cardboard, cooking oil, office supplies, furniture and equipment);
- procurement of goods and services (paper, information and communications technology (ICT) equipment, furniture and stationery supplies, building equipment and maintenance, cloud services).

The EEA does not report on land use with regard to biodiversity, as its premises have neither an urban green space nor an accessible roof top that could be used to significantly improve its contribution to biodiversity.

2.4.2 Indirect environmental aspects

Indirect environmental aspects are those activities, products and services that can, to some degree, be influenced by the EEA but not controlled, including:

- emissions of greenhouse gases and pollutants to air from staff and meeting participants' travel and the EEA's missions and meetings policy, as well as from accommodating EEA employees and meeting participants in hotels;
- waste recycling (electronic, glass, organic, household, cardboard, cooking oil, plastics, furniture and equipment);
- raising environmental awareness (through internal and external communications).

3 Environmental performance in 2021

The EEA routinely monitors the following environmental impacts to measure its environmental performance against performance indicators and quantified annual environmental targets (see Chapter 4):

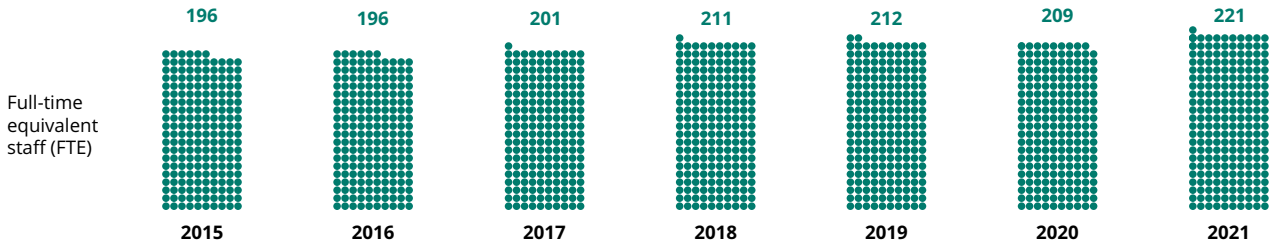
- electricity consumption and energy consumption for heating;
- paper consumption;
- water consumption;
- waste generation;
- greenhouse gas emissions.

The performance of each environmental aspect is assessed against the rolling average of the previous 5 years' performance. The performance indicators are — as a minimum — zero-growth targets compared with the rolling 5-year average. The targets are reviewed in the annual management review.

The environmental performance is usually measured in relation to the annual average number of staff members working at the EEA. For heating consumption, office space (m^2) is given.

The number of staff members is expressed as full-time equivalent (FTE) staff and is based on the same methodology as that for the EEA's other administrative reporting (Figure 1). The number of FTE staff is adjusted for staff working on part-time contracts. Consultants are excluded, while extended leave and absences are counted as FTE staff. The change in working hours from 37.5 hours to 40 hours, which took place in 2014, was considered in the methodology. In 2021, the FTE for 2020 was revised to improve the consistency of the methodology over the entire time series.

Figure 1 **Number of full-time equivalent staff (annual reference value), 2015-2021**



Source: EEA Administrative Services.

The calculation of the environmental performance per square metre is adjusted according to the changing floor space rented by the EEA. Since 2005, some EEA staff members have been working in buildings other than the main building at Kongens Nytorv 6 (KN6). Since 2010, the EEA has rented an adjacent building, Kongens Nytorv 8 (KN8). Initially renting two floors, this was increased to three floors in 2011; however, in early 2022, the lease for the basement in KN8 was discontinued. The size of the two buildings is approximately 10,000m^2 in total (7,200m^2 in KN6 and 2,800m^2 in KN8). In 2019, the EEA started a renovation project towards a 'new way of working', replacing individual offices with open-plan office space to introduce what is known as 'activity-based working'. In 2020 and 2021, the first and second floors of KN6 were renovated.

One element of the new way of working is the increased flexibility allowing staff to telework. However, the electricity, heating and water used, as well as the waste generated in home offices, are not included in the respective performance indicators. The EEA recognises and transparently reports that certain reductions observed in the EEA's environmental performance trends may be caused by externalising environmental impacts rather than gains in efficiency. For its carbon footprint, the EEA chose to extend the scope and to include estimates of staff CO_2 emissions generated in the home office environment in its calculations (see Annex 1).

3.1 Impact of COVID-19 on the EEA's environmental performance

The EEA's environmental performance in 2021 is still heavily influenced by the COVID-19 pandemic, and therefore it could again be considered a statistical outlier year similar to 2020. The reduced occupancy of the EEA's buildings caused by the lockdowns, social distancing rules in line with the recommendations or requirements of the Danish national authorities during parts of 2021, more flexible teleworking arrangements and limitations on travel resulted in considerably lower environmental impacts than before the start of the COVID-19 pandemic in March 2020. The only target not on track to be achieved was the EEA's waste generation because of the increased paper, plastic and electronic waste related to the renovation of its KN6 premises.

Figure 2 shows the results of an assessment of progress towards the EEA's annual environmental targets since 2017, including the latest two statistical outlier years, 2020 and 2021. The coloured bars illustrate over- or underachievement (green or orange, respectively) and the direction of change. The EEA has met most of its environmental targets across the environmental impacts each year since 2017, for example for electricity consumption (central computing, server cooling and staff-related electricity consumption) and paper consumption (in-house paper consumption and external printing of publications). Its performance on waste generation includes waste from the renovation of the KN6 building that started in 2019 and is ongoing. The trends in the performance of individual environmental impacts are discussed in the following chapters.

The EEA assessed the EU Eco-Management and Audit Scheme (EMAS) sectoral reference document for public administration([4]) for each of its core indicators against the best environmental management practices and concluded that relevant EEA practices are aligned with best practice. The past trend from 2017 to 2019 shows the progress achieved over time, before the impact of COVID-19 (Figure 3).

Figure 2 **Environmental performance compared with environmental targets (%), 2017-2021**

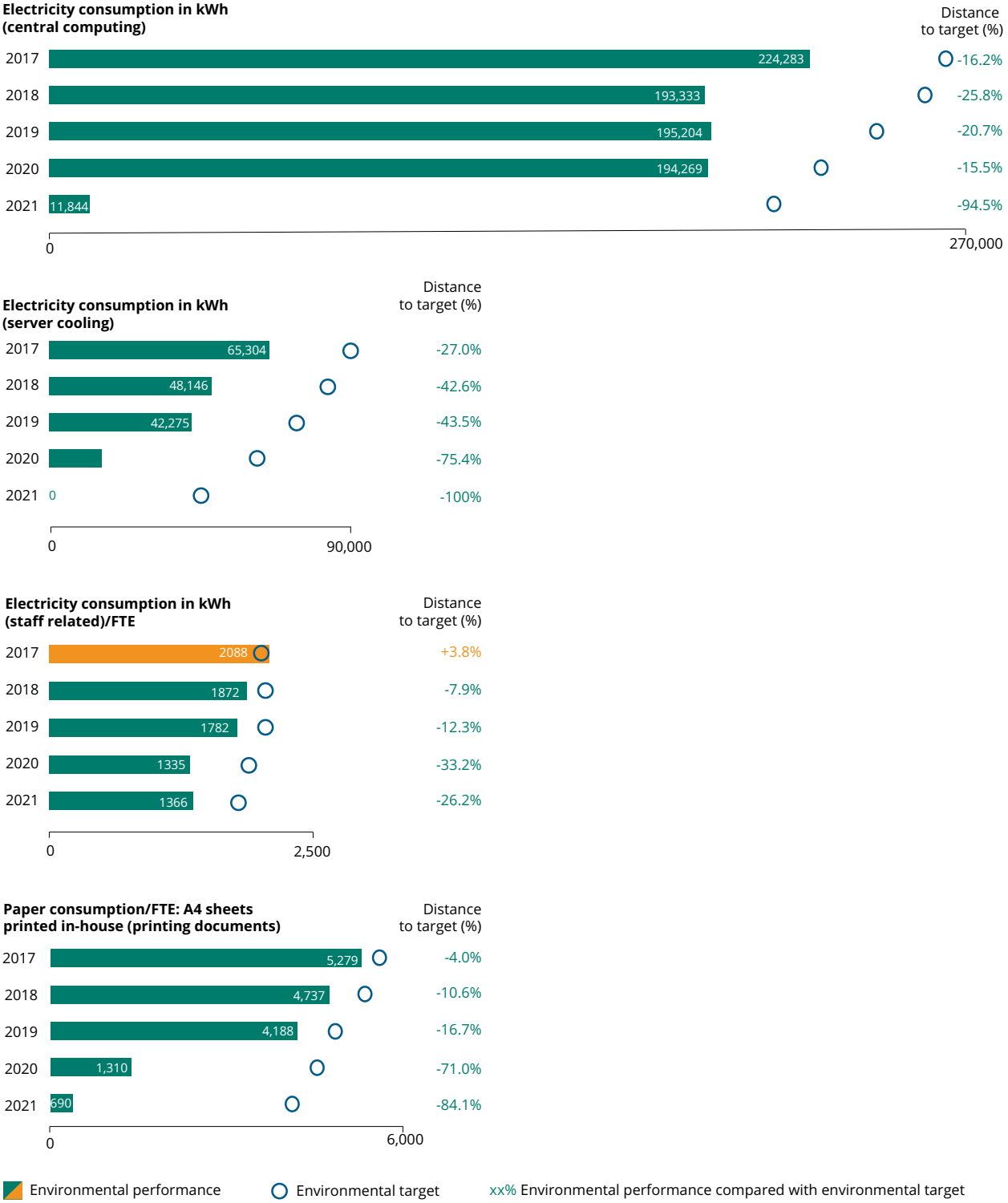
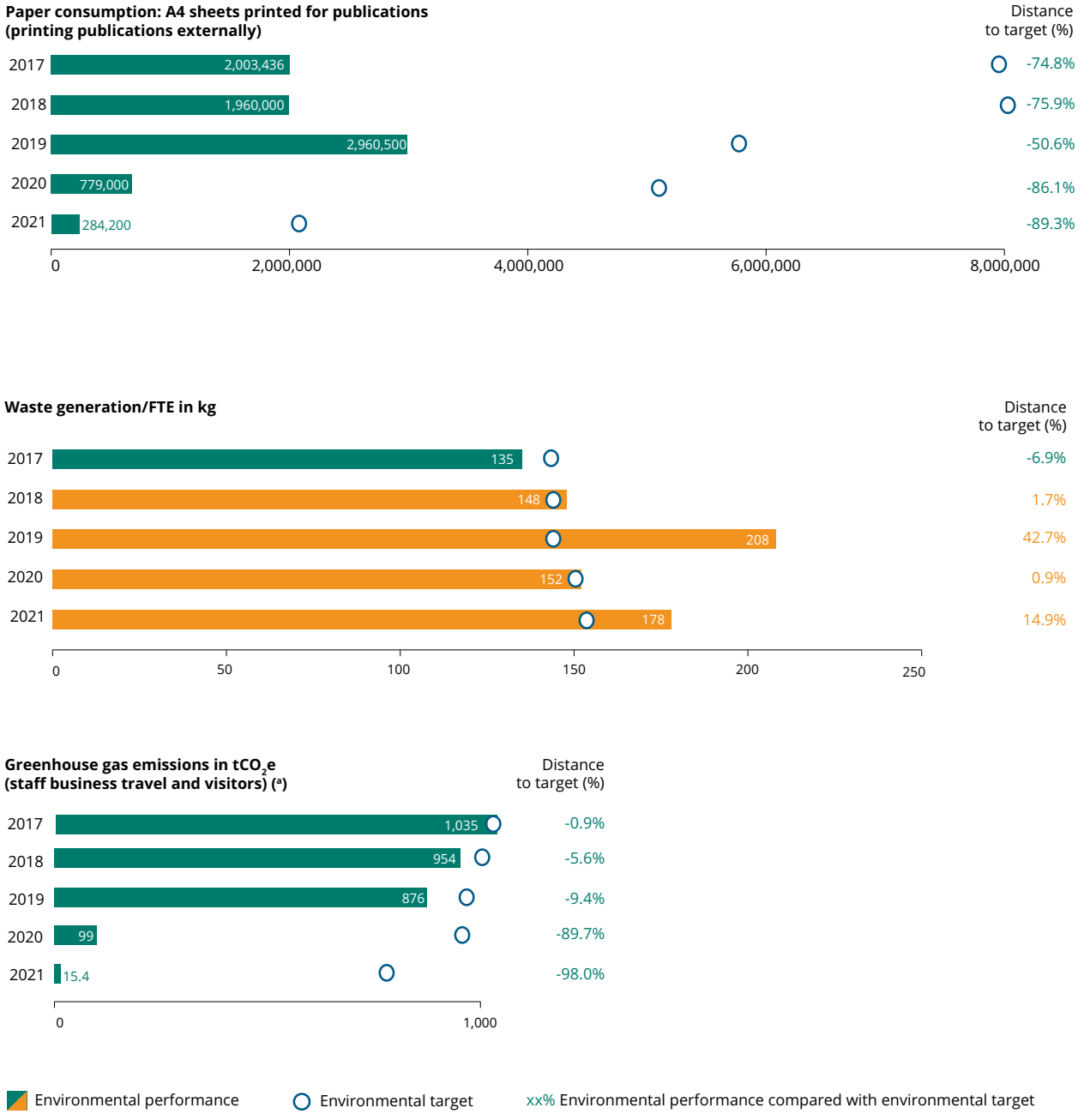


Figure 2 **Environmental performance compared with environmental targets (%), 2017-2021 (cont.)**

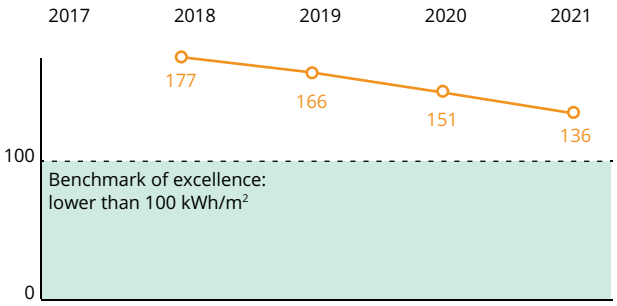


Notes: The performance indicator for heating and water consumption envisages reporting of the results but does not specify a quantified target.
(a) A zero-growth target compared with the average for the previous 5 years was assumed to align the methodology over the period under comparison.

Sources: EEA EMAS Dashboard, EEA Communications, EEA Administrative Services, EEA travel agent.

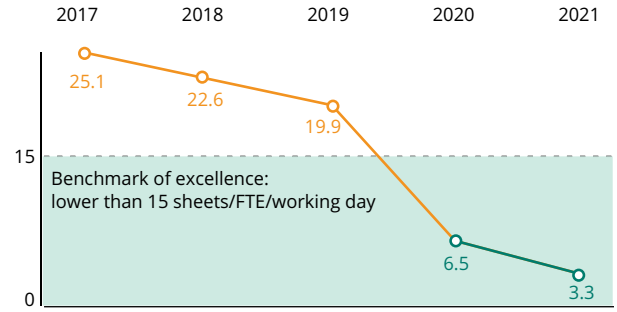
Figure 3 **Environmental performance compared with the benchmark of excellence for the public administration sector, 2017-2021**

Total energy use: total electricity and heating (kWh/m²) (a)



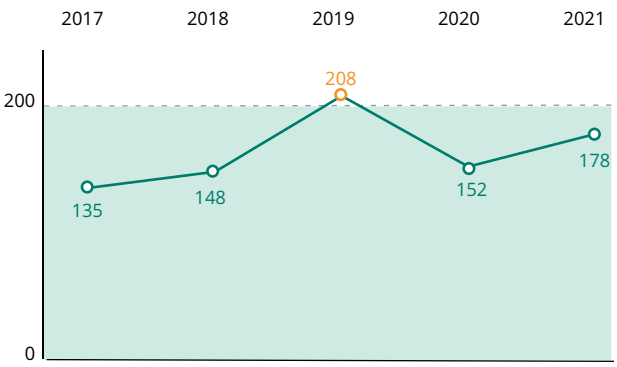
(a) Data available only for the KN6 building

Paper consumption (printing documents) (A4 sheets/FTE/working day) (b)



(b) 210 working days per year were assumed for the calculation

Waste generation (kg/FTE)



3.1.1 Outlook

In the context of organisational environmental management, the COVID-19 pandemic was a catalyst for developments that otherwise might have taken several years to happen. The paperless office, for example, now seems within reach, along with the widespread use of videoconferencing as a replacement for many physical meetings. Furthermore, an increase in the digital literacy of all staff was achieved in record time. The reduction in the EEA's environmental impact in 2020 and 2021 opened a window of opportunity to rethink operational practices and move towards becoming a more sustainable and resilient agency.

The COVID-19 pandemic also speeded up the implementation of the EEA's renovation project towards the new way of working, which will have significant synergistic effects on the EEA's environmental performance. For example, activity-based working in open-plan offices is often associated with a reduction in space (m²) per staff member, which leads to less electricity and heating consumed per staff member. Another example supporting the improvement of the EEA's environmental performance are the newly equipped meeting rooms, permitting more and higher quality videoconferences than before, in line with the EEA's climate neutrality target.

As we emerge from the pandemic, it will be important to continue to actively reflect on, raise awareness of and promote the useful practices and habits adopted during the pandemic. Some actions were already included in the action plan of the environmental management plan 2021 and will be continued, for example promoting reduced amounts of printing and staff travel and the increased use of videoconferencing and blended meetings to reduce visitors' need to travel to the EEA's offices. In addition, there may be rebound effects associated with increased teleworking, namely the environmental impact of the home office, which is clearly outside the EEA's direct control but can be influenced by awareness-raising campaigns to help staff minimise potential adverse effects.

In the environmental management plan 2022 (see Chapter 5), additional actions have been agreed to translate useful habits into a 'new normal' and to minimise rebound effects. This includes the preparation and implementation of guidance documents for staff and visitors travelling, in line with the EEA's climate neutrality target and the development of a green information technology (IT) policy.

(4) Commission Decision (EU) 2019/61 of 19 December 2018 on the sectoral reference document on best environmental management practices, sector environmental performance indicators and benchmarks of excellence for public administration under Regulation (EC) No 1221/2009 on voluntary participation in a Community eco-management and audit scheme (https://eur-lex.europa.eu/eli/dec/2019/61) accessed 28 June 2022.

In the annual assessment of progress towards the environmental performance indicators under EMAS, the years 2020 and 2021 are treated as statistical outliers and could therefore be excluded from the 5-year rolling average used as a reference to measure the annual environmental improvement. Keeping the outlier years in the rolling 5-year average, however, would lead to a moderate increase in the level of ambition across all environmental performance indicators for the coming years. The EEA will therefore include 2020 and 2021 in the rolling 5-year average.

For the EEA's greenhouse gas emissions, annual targets will follow a high-ambition-level pathway, which was endorsed by the EEA's senior management team in January 2022. The high-ambition-level pathway proposes a more than 50% reduction in the EEA's greenhouse gas emissions by 2030 compared with 2019 (see Annex 1).

3.2 Electricity consumption

The EEA is part of the Copenhagen municipality, which is committed under its CPH climate plan 2025 to be CO^2 neutral by 2025 (Copenhagen Municipality, 2021). The municipality has achieved a reduction in CO^2 emissions of more than 40% since 2005, partly as a result of the transition to producing energy from biomass and wind. The current energy provider, Ørsted, delivers 100% of the municipality's power from renewables, mainly wind energy (see Box 3).

3.2.1 Performance on electricity consumption

The consumption of electricity is divided into the electricity used for central computing (i.e. servers) and for data storage (including the electricity used to cool the server room) and staff-related use of electricity in offices and meeting rooms (Figure 4). The staff-related electricity consumption on the premises has declined since 2020, mainly because of the measures put in place to address the COVID-19 pandemic such as lockdowns and increased flexibility for teleworking. In 2021, the EEA's server infrastructure was relocated to the data centre company DigiPlex in Copenhagen, resulting in a steep drop in related energy consumption between 2020 and 2021. The electricity consumed outside the EEA's premises is not included in this performance indicator. To ensure that negative environmental impacts from services that the EEA purchases are minimised, for example from external data storage, the EEA applies green public procurement guidelines (see Section 3.8).

Apart from these short-term developments, the longer-term trend is an overall decline in energy consumption, due to targeted measures such as the installation of more energy-efficient computing, multifunctional devices and new light sensors in corridors with energy-efficient light-emitting diode (LED) lights, as well as an increasing environmental awareness among staff (Figures 5 and 7).

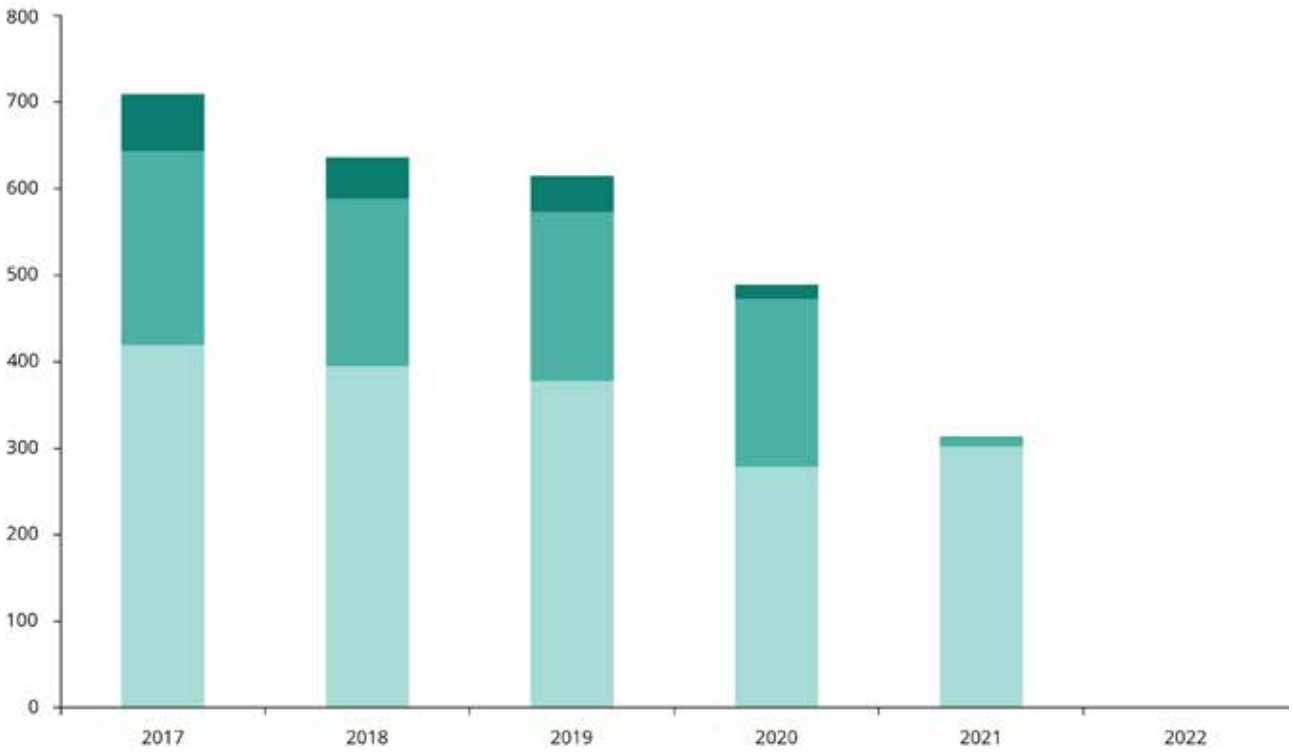
Box 3 European Energy Certification

The Association of Issuing Bodies (AIB) is responsible for the development, use and promotion of the European Energy Certificate System (EECS). The market for the Renewable Energy Certificate System (RECS) was administered by AIB in accordance with the EECS, but it has now been replaced by the obligatory guarantees of origin required by various EU directives. The principles and rules of operation of the EECS define a certificate as an electronic document that identifies the source and method of production of a unit of energy and relates to a specific purpose — such as energy source disclosure or compliance with an obligation. The EECS serves to harmonise energy certificates, thus ensuring that AIB member organisations' registries are compatible with one another.

Ørsted's transition to green power is happening within the framework of the European Guarantees of Origin scheme. The company buys 'green certificates' for all its residential customers in Denmark. A green certificate is a guarantee of origin that proves that a given share of power is generated from renewable sources such as wind, solar or biomass. In Ørsted's 2020 sustainability report, it is stated that the company covers 100% of its own power consumption with green certificates, mainly from its offshore wind farms.

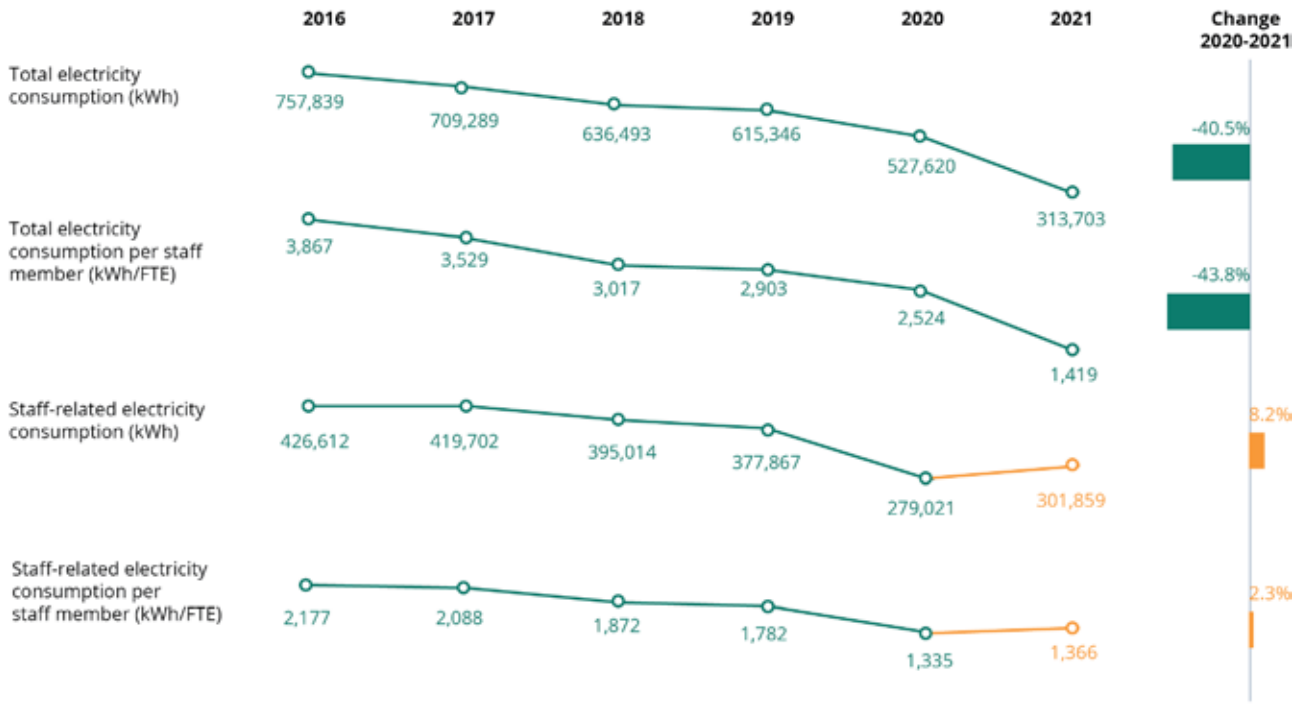
Sources: AIB (2021) and Ørsted (2021).

Figure 4 **Shares of electricity consumed by data storage, server cooling and staff-related activities, 2012-2021**



Source: EEA EMAS Dashboard.

Figure 5 **Consumption of total electricity and electricity per FTE employee, 2016-2021**



Note: 2016-2021 figures cover both rented buildings KN6 and KN8 (10,000m^2).

Sources: EEA Administrative Services, EEA EMAS Dashboard.

3.2.2 Actions and improvements

As part of the EEA's renovation project towards the new way of working, the EEA's Data and Information Services replaced desktop personal computers with more energy-efficient docking stations and laptops (Table 2). This is helping to reduce the staff-related use of electricity on the EEA's premises in the longer term.

3.3 Heating

The EEA is provided with district heating from HOFOR, the local heating provider in Copenhagen. HOFOR aims to achieve the goal set by the city of Copenhagen to become the world's first carbon-neutral capital by 2025 (HOFOR, 2021) through:

- investing in converting the Amagerværket power station from fossil fuels to biomass;
- supplying all households in Copenhagen city with more energy-efficient, water-based district heating by 2021;
- reducing energy and water loss from the district heating grid;
- advising individuals and companies on energy savings.

3.3.1 Performance on heating

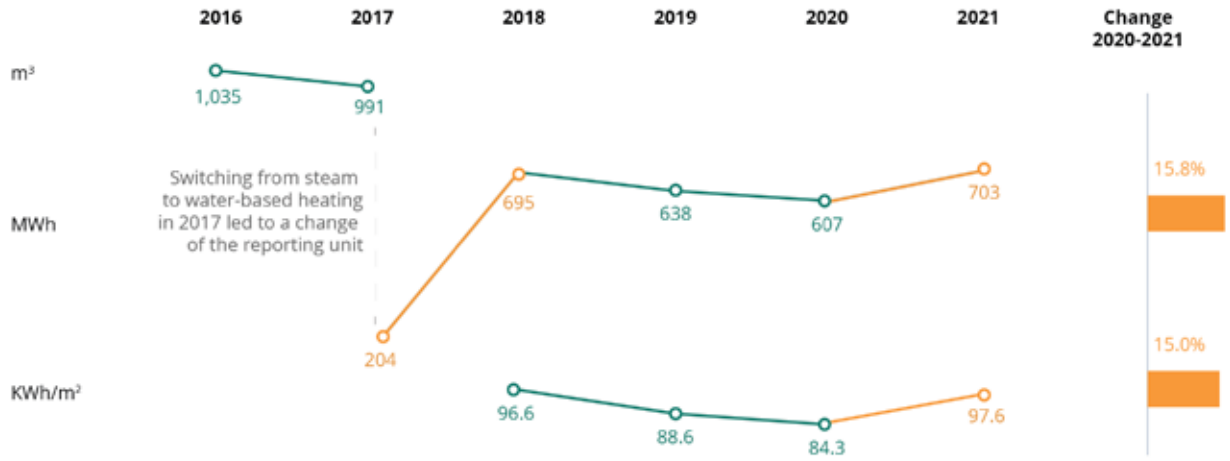
HOFOR switched from steam to water-based heating in 2017, which led to a change in the reporting unit from cubic metres to megawatt hours. The 2017 data therefore only account for the period from September to December. The consumption reflects both heating the building and heating water (Figure 6).

Table 2 Evaluation of action plan 2021

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Electricity consumption	Central computing and data storage by servers	Relocating the EEA's server infrastructure to DigiPlex data centres	DIS	Implemented
	Cooling in server room	Relocating the EEA's server infrastructure to DigiPlex data centres	DIS	Implemented
	Staff-related use of electricity in offices and meeting rooms (personal computers (PCs), printers, copy machines, lights, etc.)	Continue roll-out of working stations with laptop and docking station, no extra PCs	ADS/DIS	Implemented
		Raise awareness of energy efficiency and renewable energy solutions in home office environment to minimise potential rebound effect of teleworking	EMAS team/HoGs	Implemented
Sustainable esource use	Electricity, paper, heat and water consumption	Raise awareness of resource-efficient water and energy consumption in home office environment to minimise potential rebound effect of teleworking	EMAS team/HoGs	Implemented
		Promote resource-efficient water and energy consumption in the office to limit return to pre-COVID-19 levels	EMAS team/HoGs	Implemented

Note: ADS, EEA Administrative Services; DIS, EEA Data and Information Services; HoGs, EEA Heads of Group.

Figure 6 **Consumption of heating energy, 2016-2021**



Note: For all years, the figures cover KN6 (7,200m²) only. No heating consumption data for KN8 are currently available, as they are included in the rent as an aconto. Heating per FTE employee was not calculated, as an increasing number of staff have been relocated to KN8.

Source: EEA Administrative Services.

3.3.2 Actions and improvements

There were no further investments to improve the energy efficiency of heating included in the action plan 2021.

3.4 Water consumption

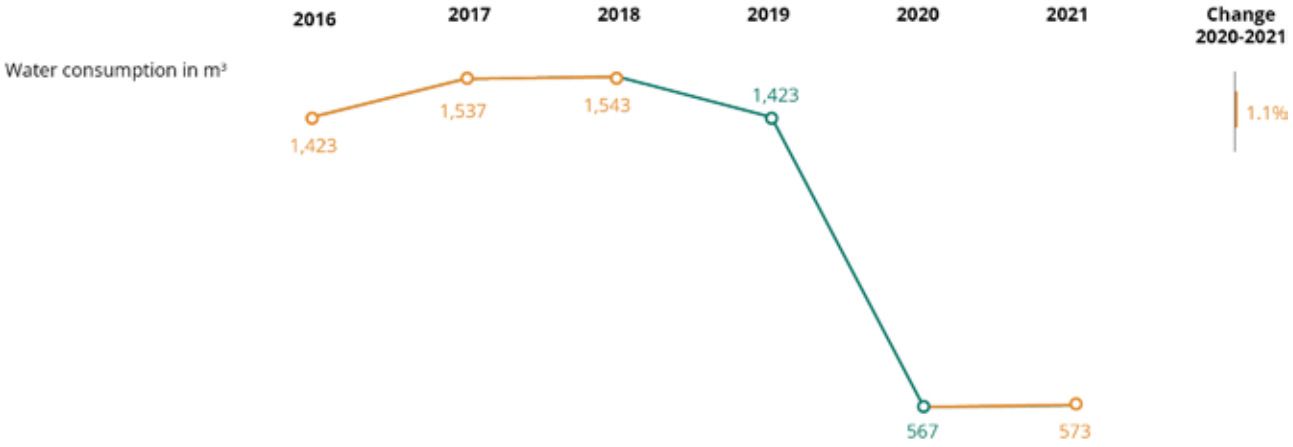
3.4.1 Performance on water consumption

The EEA's consumption of water has decreased since 2013. This has been achieved through a combination of measures, including replacing leaking toilets, generally reducing staff consumption and optimising canteen operations (Figure 7).

3.4.2 Actions and improvements

No actions were included in the environmental management plan 2021.

Figure 7 Water consumption, 2016-2021



Note: The data cover KN6 (7,200m²) only. No water consumption data for KN8 are currently available, as they are included in the rent as an aconto. Water consumption per FTE employee was not calculated, as an increasing number of staff have been relocated to KN8.

Source: EEA Administrative Services.

3.5 Paper consumption

3.5.1 Performance on paper consumption

Following the installation of new and fewer multifunctional devices (MFDs) in 2017 and the implementation of the 'follow-me' or uniflow printing system, a steady drop in physical printouts and a stable reduction in in-house paper use have been achieved, both in absolute figures and per FTE employee (Figure 8). Under this system, print jobs are triggered by swiping an access card through a reader on the closest MFD. This system avoids double printing and results in reduced printing demand. The fleet was reduced from 36 to 15 MFDs. These are more energy efficient than the machines used previously, boast low air and noise pollution levels and are both TEC3 and Blue Angel certified ([5]).

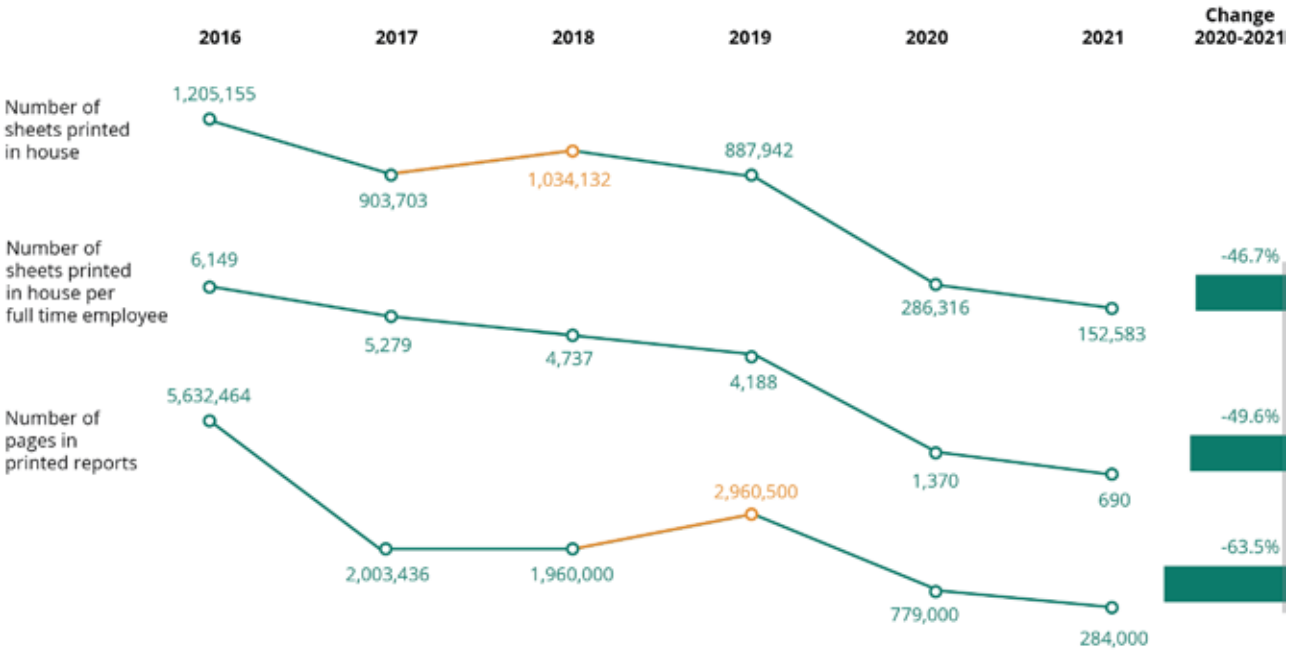
The reduction in the number of externally printed pages in 2020 was mainly due to smaller print runs and decisions to stop printing reports such as the annual Transport and Environment Reporting Mechanism (TERM) report (Figure 8). In addition, the EEA's flagship Signals report, previously printed in 13 languages, was printed only in English in 2020. The difference between 2019 and 2020 was due to more pages being printed in 2019 because of the 5-yearly The European environment —State and outlook report (SOER) and the EEA's 25th anniversary publication. Between 2020 and 2021, the number of printed reports could be further reduced by 64%.

3.5.2 Actions and improvements

The number of MFDs was further reduced in the course of the EEA's renovation project towards the new way of working on the first and the second floors to encourage staff to maintain the reduced printing habits adopted during the COVID-19 pandemic. The EEA's Communications programme piloted several web reports, promoting the digitalisation of EEA products and further reducing the number of printed reports produced.

([4]) TEC is the typical energy consumption standard, 1.3kWh/week.2022.

Figure 8 **Paper consumption: in-house printing and printed reports, 2016-2021**



Notes: (a) Sum of PDF pages for report printing (based on previous years' MS Word pages).
(b) The European environment — State and outlook 2015 alone was responsible for more than 11 million printed pages.

Sources: EEA EMAS Dashboard, EEA Communications.

Table 3 **Evaluation of action plan 2021**

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Paper consumption	Printing documents and emails	Promote paperless office and maintain reduced printing habits adopted during the COVID-19-induced lockdown	EMAS team/HoGs	Implemented
		Continue digitalisation of administrative workflows (e.g. digital salary slips)	ADS	In progress
	Printing publications externally	Reduce the number of printed paper publications through close management of the publication plan, targeted dissemination and more print-on-demand and web publishing	COM	Implemented

Note: ADS, EEA Administrative Services; COM, EEA Communications; HoGs, EEA Heads of Group.

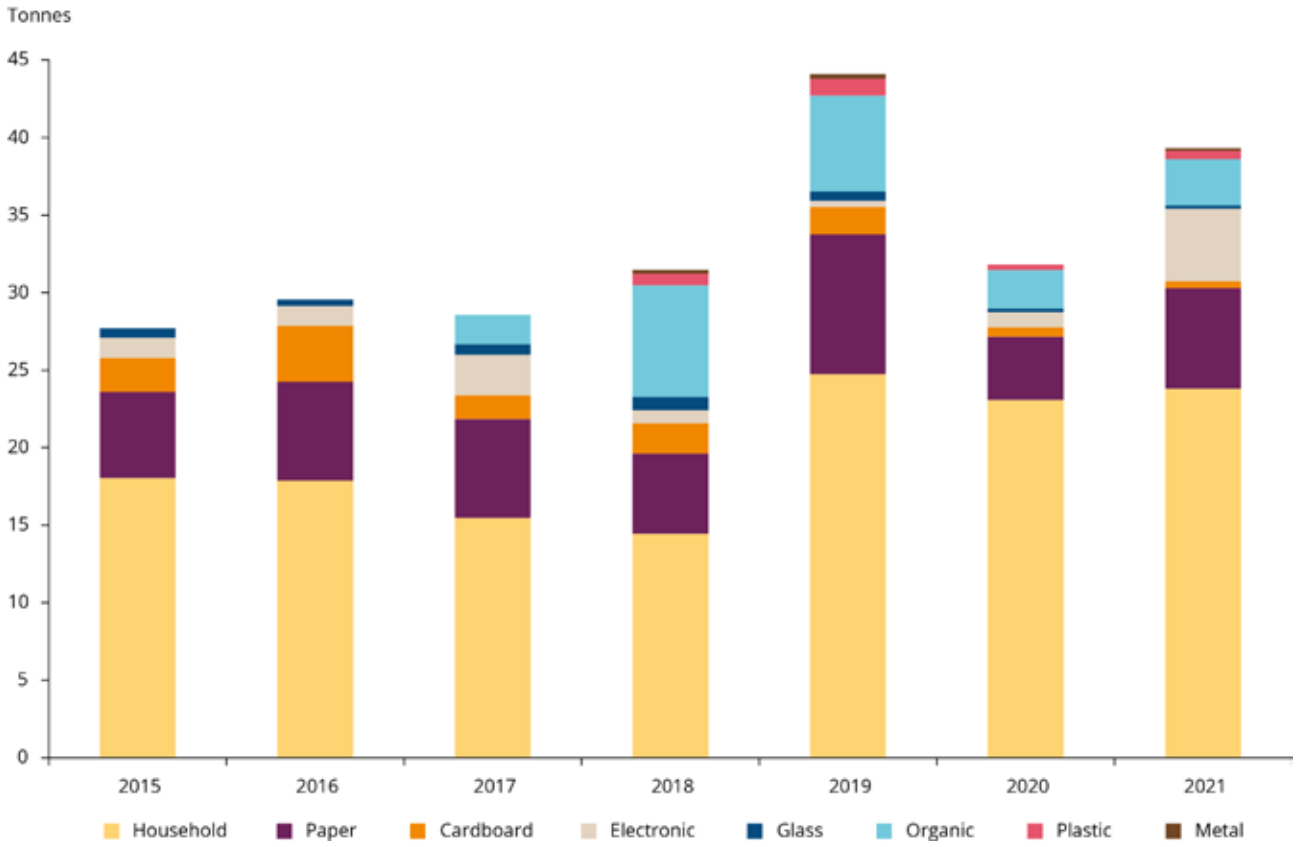
3.6 Waste generation

3.6.1 Performance on waste generation

The EEA's waste sorting was significantly improved in 2018 and 2019, helping to increase the recycling of the EEA's waste at a communal level. Since then, waste has been sorted into household, organic, plastic, glass, paper, electronic and metal waste.

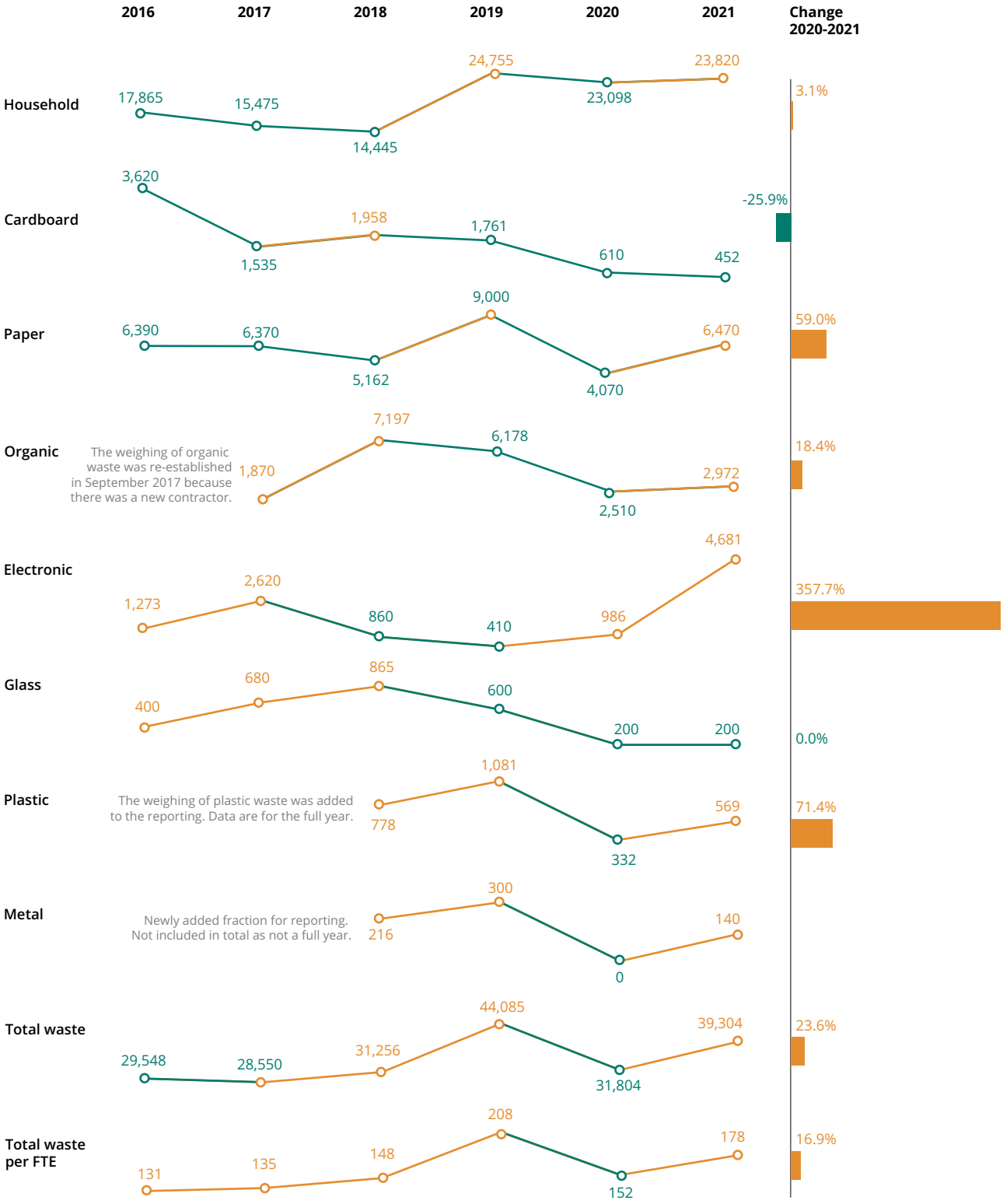
The large amount of total waste in 2019, particularly paper and household waste, was driven by the removal of 90 individual offices as part of the EEA's reorganisation and the start of the refurbishment of the second floor in the building KN6, involving the thorough sorting of 17 offices, including archives. In 2020 and in 2021, the amounts of household waste generated remained high because of the continued renovation (Figures 9 and10). In 2021, levels of paper, plastic and organic waste increased compared with 2020, but all three fractions remained at lower levels than before the pandemic. Electronic waste saw a sharp increase of almost 376% between 2020 and 2021. This was caused by the implementation of new IT workstations without desk phones and personal computers as part of the EEA's renovation project towards the new way of working and also the replacement of older laptops with newer models during the COVID-19 lockdowns when teleworking levels were increased.

Figure 9 **Waste generation per waste fraction, 2015-2021**



Source: EEA Administrative Services.

Figure 10 **Waste generation per waste fraction, 2015-2021**



Source: EEA EMAS Dashboard.

3.6.2 Actions and improvements

Recognising the vast amounts of electronic waste generated at the EEA in 2021 and, more generally, the growing environmental issue of the short lifespans of many electronic devices such as laptops and smart phones, the EEA's Data and Information Services proposed developing a sustainable green IT policy at the EEA. In February 2022, this proposal was endorsed by the EEA's senior management team and a green IT policy will be developed. The initiative was greatly supported by the European Commission's Bluebook trainees, assigned to the EEA between September 2021 and February 2022.

The Bluebook trainees also presented their ideas to staff on how to reduce waste and increase circularity at the EEA. These ideas will be considered and integrated into the EEA's waste management procedures as appropriate. First steps towards a more resource-efficient organisation were taken by EEA Data and Information Services and EEA Administrative Services. They started an initiative to offer redundant furniture and equipment to staff, for example old canteen chairs and computer screens. The Bluebook trainees, together with the EEA's canteen, promoted the distribution of leftover food to staff on Fridays to minimise the amount of food ending up as waste at the EEA.

Table 4 Evaluation of action plan 2021

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Waste production	Waste sorting and reduction	Provide information and training on waste sorting for cleaning staff	EMAS team/ADS	Implemented
		Raise awareness of avoiding, sorting and recycling waste in home office environment to minimise potential rebound effect of teleworking	EMAS team/HoGs	Implemented
		Promote 'green IT' in accordance with the EEA-Eionet digitalisation framework 2030, i.e. greening the EEA ICT infrastructure, applying circular economy principles and procuring green IT	EMAS team/DIS	Implemented

Note: ADS, EEA Administrative Services; DIS, EEA Data and Information Services; HoGs, EEA Heads of Group.

3.7 Carbon dioxide emissions related to travel

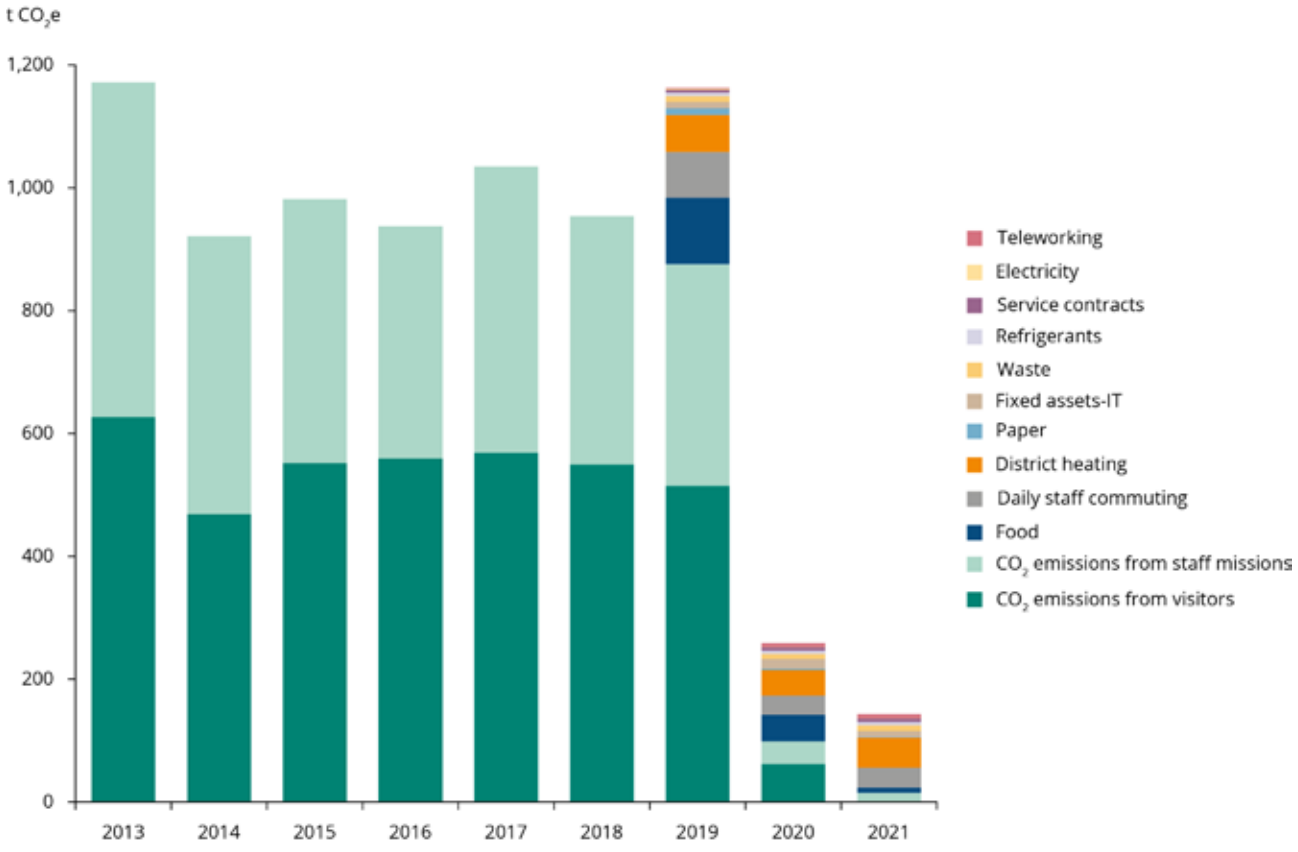
Emissions related to staff business travel and visitors' travel have been reported since 2006. In the same year, a carbon-offsetting scheme was introduced. This scheme is managed by the EEA's travel agent, Business Travel Specialist, and the offsets are used to support Gold Standard-certified energy efficiency projects in Africa ([6]). Every quarter, diplomas are issued to confirm the offsetting of emissions (see 2021 offset charge in Figure 12). As a reference, a return flight from Copenhagen to Brussels emits 257kg CO_2e (carbon dioxide equivalent). A return train journey between Copenhagen and Stockholm emits only 17kg CO_2e. The EEA encourages staff to use train travel when convenient connections are available, such as for Stockholm.

3.7.1 Performance on CO_2 emissions

Greenhouse gas emissions from staff and visitor travel decreased slightly in 2018 and 2019 after a peak in 2017. Because of the COVID-19 pandemic, the EEA temporarily stopped almost all business travel and physical meetings at the EEA's premises in March 2020. In 2021, only 15t CO_2e were emitted from staff and visitor travel, 84% less than in 2020 (see Figure 11).

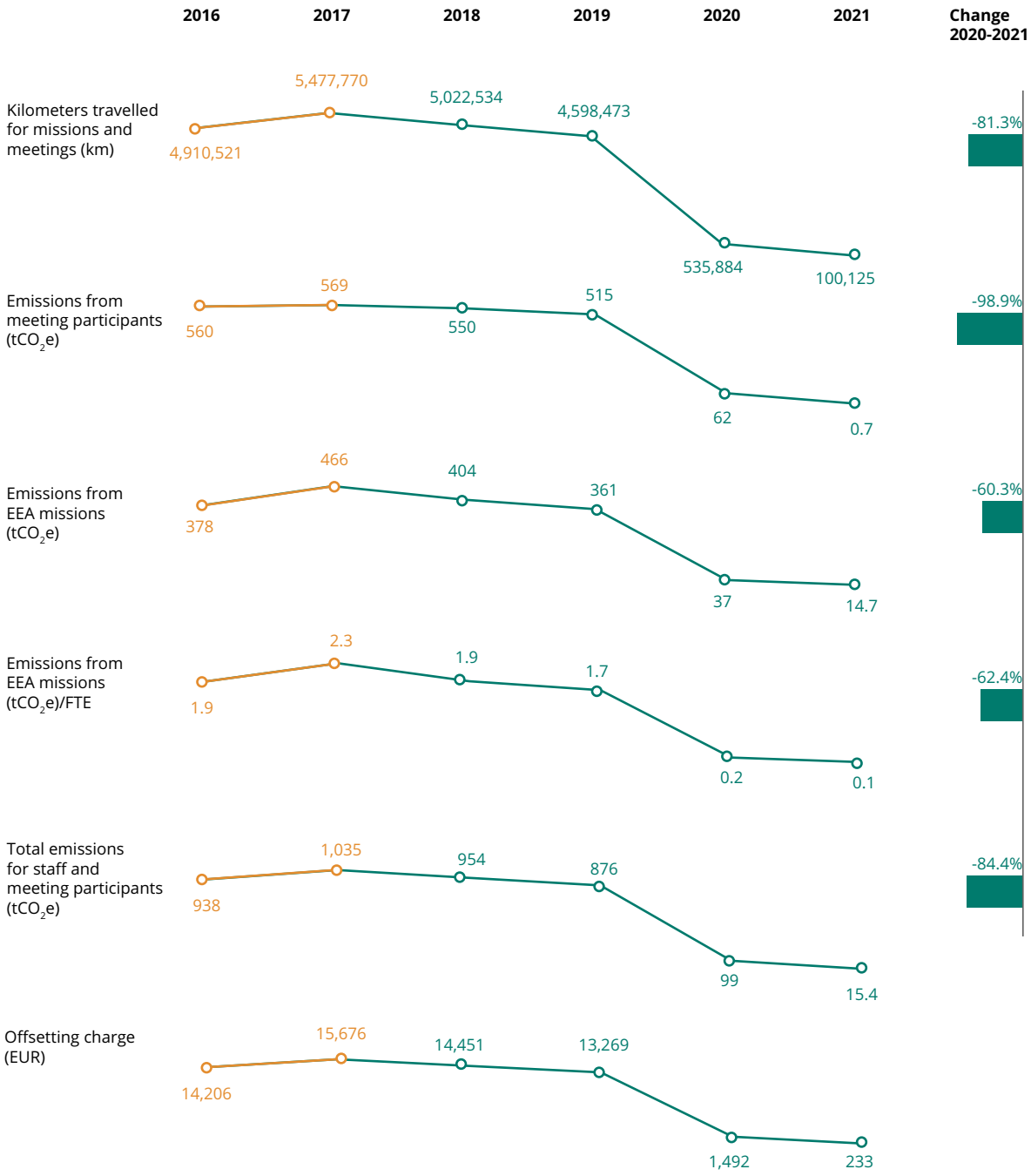
In 2020, the Executive Director decided to raise the EEA's climate ambitions, with the aim of becoming a climate-neutral organisation. Throughout 2021, a study was carried out by consultants to calculate the EEA's carbon footprint with an extended scope in accordance with the Bilan Carbone methodology (developed by ADEME) and the Greenhouse Gas Protocol (developed by the World Resources Institute and the World Business Council for Sustainable Development). Both methodologies are in line with the ISO 14064 standard and commonly used by EU institutions. The study also identified potential measures to reduce greenhouse gas emissions as part of developing pathways towards climate neutrality (see Annex 1).

Figure 11 CO_2 emissions from staff and visitor travel, 2013-2021 and additional emission sources, 2019-2021



([6]) http://www.co2balance.com (accessed 20 June 2022).

Figure 12 **CO_2 emissions from travel and meetings (t CO_2e), 2016-2021**



Sources: EEA travel agent, EEA Administrative Services.

3.7.2 Improvements and action plan

Table 5 Evaluation of action plan 2021

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Greenhouse gas emissions	Business travel (staff and meeting participants)	Develop a roadmap and implementing framework to achieve climate neutrality as an organisation (study: Climate-neutral EEA)	EMAS team/HoGs	Implemented
		Replace staff travel with blended meetings and videoconferencing to a large extent	HoGs/all staff	Implemented
		Promote maintaining reduced travel practices to limit the return to pre-COVID-19 levels	EMAS team/HoGs	Implemented
	External participants coming to EEA-organised meetings	Promote maintaining reduced travel among external participants of EEA-organised meetings to limit return to pre-COVID-19 levels of emissions	EMAS team/CAS/ HoGs	Implemented
		Replace meetings on EEA premises with blended meetings and videoconferencing to a large extent	HoGs/all staff	Implemented

Note: ADS, EEA Administrative Services; CAS: EEA Coordination and Strategy; HoGs, EEA Heads of Group.

3.8 Green procurement

The EEA also regularly evaluates its activities to optimise and improve outputs, while limiting the use of resources and minimising negative impacts on the environment. One way to achieve this is through its procurement process, which follows the green public procurement guidelines: an 'environmental impact statement' is written in the initial proposal for procurement, and specific, robust environmental criteria and 'environmental considerations' appear in the tender specifications. Tenderers have to comply with these criteria and considerations to be eligible for a contract. It is standard EEA practice to build environmental considerations into procurement (see Table 6).

3.8.1 Improvements and action plan

Table 6 Evaluation of action plan 2021

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Various negative environmental impacts of the EEA	All procurement	Raise awareness of the appropriate implementation of green procurement	EMAS team/ADS	Implemented
		Calls for tender for relevant services must include environmental criteria according to the type of goods purchased	ADS/all staff	Implemented

Note: ADS, EEA Administrative Services.

3.9 Raising environmental awareness

3.9.1 Delivering environmental data and knowledge

The EEA's key goals are to be the prime source of environmental data and knowledge in Europe and to play a leading role in supporting the long-term transition to a sustainable society. The EEA helps to achieve significant and measurable improvement in Europe's environment by providing timely, targeted, relevant and reliable information to policymakers and the public.

The key outputs of the EEA are reports/assessments, briefings, core set indicators, core data flows and Eionet meetings covering a wide range of environmental aspects, such as biodiversity, water, climate, energy, transport, air pollution, health and sustainable resource use. The EEA's consolidated annual activity report (CAAR) outlines the EEA's work and achievements during the previous year ([7]) and evaluates the outputs against the objectives.

In 2020, the EEA released the *EEA-Eionet strategy 2021-2030 (EEA, 2020)*, outlining five strategic objectives for the coming decade. The EEA will continue to support policy implementation and sustainability transitions and will provide timely input to solutions for sustainability challenges. It will provide the knowledge needed, build strong networks and partnerships and make full use of the potential of data, technology and digitalisation, while ensuring that it continues to develop its own expertise and capacity across the network.

3.9.2 External communication on EMAS

In its environmental policy, the EEA commits to making use of its own experience and accumulated knowledge in managing environmental performance to influence and inspire other EU bodies and institutions.

The Agency is part of the EU Agencies Network (EUAN) and the EU Greening Network, which aim to share best practices in the implementation of environmental management systems under EMAS and improvement activities (EU Agencies Network, 2021; see also Box 4). In 2021, as chair of the EUAN, the EEA put emphasis on a green agenda in alignment with the priorities of the current Commission. Another priority during the EEA's coordination of the EUAN was to promote a greener, more digital and resilient administration of excellence under which two avenues of action were pursued: (1) increasing use of digital means for meetings; and (2) promoting sustainable transition and climate neutrality in EU agencies.

([7]) The CAAR 2020 is available on the EEA's website (https://www.eea.europa.eu/publications/consolidated-annual-activity-report-2020_) accessed 28 June 2022.

Box 4 The EU Agencies Network and the EU Greening Network

This inter-agency network was set up by the EEA in 2006 and was formally recognised by the heads of administration of EU agencies in May 2016. With more than 25 members from EU agencies, the EU Agencies Network addresses common environmental topics, with particular focus on registration and implementation under the Eco-Management and Audit Scheme Regulation. The Greening Network is also involved in EU environmental governance through it representation in the informal inter-institutional group on environmental management.

Sources: AIB (2021) and Ørsted (2021).

3.9.3 Internal communication on EMAS

Internally, EMAS is part of the EEA's induction programme, during which all new employees get to know the EMAS quality standard and how the EEA applies it on its own premises.
In addition, as part of regular biannual internal audits, members of staff are interviewed about the aspects of their work that relate to EMAS. The results of the internal audits and the key messages from the annual environmental statement report are presented to staff as part of the programme meetings.

To encourage more sustainable consumption and efficient resource use by employees in the workplace, as well as at home, the EMAS team provides regular information, including green tips, for example on the EMAS Teams site 'EMAS — our environmental commitment' and on the EEA intranet. The EMAS Teams site was established in 2020 to engage with staff during the COVID-19 pandemic, to share ideas, questions, links and tips about our environmental commitment at the EEA. The EMAS page on the EEA intranet was also refreshed and provides up-to-date information on EMAS activities at the EEA throughout the year.

3.9.4 Improvements and action plan

Table 7 Evaluation of action plan 2021

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Various positive environmental impacts of the EEA — awareness raising	Green communication/ awareness-raising activities	Develop and implement an integrated approach to internal and external communication (communication plan)	EMAS team/COM	Implemented
		Initiate and contribute to knowledge exchange activities in the EUAN, the EU Greening Network and GIME	EMAS team/ADS	Implemented

Note: ADS, EEA Administrative Services; COM, EEA Communications; EUAN, EU Agencies Network; GIME, informal group on environmental management.

3.10 Other

This section includes other environmental impacts that are not monitored in quantitative terms. These include environmental, economic and social impacts and the internal environment (Table 8).

Table 8 Evaluation of action plan 2021

Environmental impact	Source of impact	Action plan	Responsibility for implementation	Status of implementation
Environmental, economic and social impacts	All EEA activities	Raise awareness of synergies between positive environmental impacts and staff health and well-being aspects (e.g. reduced meat consumption, commuting by cycling)	EMAS team/well-being coordinator	In progress
		Promote material efficiency and circular economy among staff	EMAS team/social committee	Implemented
Internal environment	Environment in buildings, health and safety aspects	Provide information on how to maximise environmental co-benefits in the renovation of the office space in KN6 and the new way of working (e.g. reduced number of printers to encourage paperless office, reuse of electronics and furniture) and on how to avoid potential lock-ins and negative environmental impacts in the renovation of the office space in KN6 and the new way of working (e.g. potential rebound effect of teleworking, huge amounts of electronic and furniture waste)	EMAS team	Implemented

4
Progress towards environmental performance indicators 2021

Table 9 **Assessment of progress against environmental performance indicators 2021 ([8])**

Environmental impact	Source of environmental impact	Action plan	Performance indicator 2021	Target 2021	Performance 2021	Performance compared with 2021 target (%)
1. Electricity consumption	Central computing and data storage by servers	Relocating the EEA's server infrastructure to DigiPlex data centres	Discontinued	Discontinued	EEA's server infrastructure relocated to DigiPlex data centres	n/a
	Cooling in server room	Relocating the EEA's server infrastructure to DigiPlex data centres	Discontinued	Discontinued	EEA's server infrastructure relocated to DigiPlex data centres	n/a
	Staff-related use of electricity in offices and meeting rooms (PCs, printers, copy machines, lights, etc.)	Continue roll-out of working stations with laptop and docking station, no extra PCs Raise awareness of energy efficiency and renewable energy solutions in home office environment to minimise potential rebound effect of teleworking	Zero growth in electricity consumption per FTE employee for 2021 (based on the 5-year rolling average for 2016-2020)	1,851kWh/FTE	1,366kWh/FTE	-26.2

([8]) Green shading in the column 'Performance compared with targe' means the target was achieved, while orange shading means the target was not achieved..

Table 9 Assessment of progress against environmental performance indicators 2021 ([8]) (cont.)

Environmental impact	Source of environmental impact	Action plan	Performance indicator 2021	Target 2021	Performance 2021	Performance compared with 2021 target (%)
2. Paper consumption	Printing documents and emails	Promote paperless office and maintaining reduced printing habits adopted during the COVID-19-induced lockdown Continue digitalisation of administrative workflows (e.g. digital salary slips)	Zero growth in A4 sheets printed (based on the rolling 5-year average for 2016-2020)	887,998 A4 sheets	152,583 A4 sheets	-82.8
			Zero growth in A4 sheets printed per FTE employee (based on the rolling 5-year average for 2016-2020)	4,345 sheets/FTE	690 A4 sheets/FTE	-84.1
	Printing publications externally	Reduce the number of printed paper publications through close management of the publication plan, targeted dissemination and more print-on-demand and web publishing	Zero growth in A4 sheets printed (based on the rolling 5-year average for 2016-2020)	2,667,080 A4 sheets	284,200 A4 sheets	-89.3
3. Sustainable resource use	Electricity(a), paper(a), heating and water consumption	Raise awareness of resource-efficient water and energy consumption in home office environment to minimise potential rebound effect of teleworking Promote resource-efficient water and energy consumption in the office to limit return to pre-COVID-19 levels	Provision of information on sustainable resource use through intranet and EMAS Teams channel (EMAS team). In addition, cascading of information to staff in group meetings (HoGs)	Not quantified	Information provided	n/a

Table 9 Assessment of progress against environmental performance indicators 2021 ([8]) (cont.)

Environmental impact	Source of environmental impact	Action plan	Performance indicator 2021	Target 2021	Performance 2021	Performance compared with 2021 target (%)
4. Waste generation	Waste sorting and reduction	Provide information and training on waste sorting for cleaning staff Raise awareness of avoiding, sorting and recycling waste in home office environment to minimise potential rebound effect of teleworking Promote 'green IT' in accordance with the EEA-Eionet digitalisation framework 2030, i.e. greening the EEA ICT infrastructure, applying circular economy principles and procuring green IT	Zero growth in total waste in kg per FTE employee (based on the rolling 5-year average for 2016-2020) Provision of information on waste sorting and recycling to cleaning staff Active participation in the cross-agency group on the EEA-Eionet digital agenda	155kg/FTE	178kg/FTE Information provided Active participation of EMAS coordinator in cross-agency group on the EEA-Eionet digital agenda Preparation of an 'EEA green IT policy' endorsed by SMT	14.9
5. Greenhouse gas emissions	Staff business travel	Develop a roadmap and implementing framework to achieve climate neutrality as an organisation (study: Climate-neutral EEA) Replace staff travel with blended meetings and videoconferencing to a large extent Promote maintaining reduced travel practice to limit return to pre-COVID-19 levels	Zero growth in emissions (t CO_2e) from staff travel (based on the 5-year rolling average for 2016-2020) Draft roadmap and implementing framework developed (EMAS team/HoGs) Provision of information on emission reduction options for business travel through intranet and EMAS Teams channel (EMAS team). In addition, cascading of information to staff in group meetings (HoGs)	329t CO_2e	15t CO_2e Climate neutrality pathways and action plans prepared High-ambition pathway towards a climate-neutral EEA endorsed by SMT Preparation of revised 'EEA staff travel guidance' under way Information provided	-95.5

Table 9 Assessment of progress against environmental performance indicators 2021 ([8]) (cont.)

Environmental impact	Source of environmental impact	Action plan	Performance indicator 2021	Target 2021	Performance 2021	Performance compared with 2021 target (%)
	External participants coming to EEA-organised meetings	Promote maintaining reduced travel among external participants of EEA-organised meetings to limit return to pre-COVID-19 levels of emissions	Zero growth in emissions (t CO_2e) from external visitor travel (based on the 5-year rolling average for 2016-2020) Provision of information on emission reduction options for the business travel of external participants through intranet and EMAS Teams channel (EMAS team). In addition, cascading of information to staff in group meetings (HoGs)	451.2t CO_2e	0.7t CO_2e Information provided Preparation of revised 'EEA visitor travel guidance' under way	-99.8
		Replace meetings on EEA premises by blended meetings and videoconferencing to a large extent				
6. Various negative environmental impacts of the EEA	All procurement	Raise awareness of the appropriate implementation of green procurement	Provision of information on green procurement for staff (EMAS team with ADS)	Not quantified	Information provided	n/a
		Calls to tender for relevant services must include environmental criteria according to the type of goods purchased	100% of procurement aligned with EU directives 100% of purchases are carried out against best available environmental criteria	Not quantified	Integrated in tender procedure and management plan system	n/a
7. Various positive environmental impacts of EEA awareness raising	Green internal and external communication/ awareness-raising activities(b)	Develop and implement an integrated approach to internal and external communication (communication plan)	Communication plan developed (EMAS team, COM) Contribution to the EEA's coordination of the EUAN (as requested by ED and ADS) Active participation in the Greening Network and GIME	Not quantified	Communication plan prepared by EMAS communication expert Contribution to EUAN coordination provided EMAS coordinator actively participated in EU Greening Network, EMAS days and GIME	n/a
		Initiate and contribute to knowledge-exchange activities in the EUAN), the EU Agencies' Greening subnetwork and GIME				

Table 9 Assessment of progress against environmental performance indicators 2021 ([8]) (cont.)

Environmental impact	Source of environmental impact	Action plan	Performance indicator 2021	Target 2021	Performance 2021	Performance compared with 2021 target (%)
8. Environmental economic and social impacts	All EEA activities	Raise awareness of synergies between positive environmental impacts and staff health and well-being aspects (e.g. reduced meat consumption, commuting by cycling)	Provision of information on synergies between positive environmental impacts and staff health and well-being aspects through intranet and EMAS Teams channel	Not quantified	Information provided	n/a
		Promote material efficiency and circular economy among staff	Organisation of the EEA's annual swap party in cooperation with the EEA's social committee and regular promotion of the 'Free your stuff' initiative		Swap party and 'Free your stuff' Teams channel discontinued	
9. Internal environment	Environment in buildings, health and safety aspects	Provide information on how to maximise environmental co-benefits in the renovation of the office space in KN6 and the 'new way of working' (e.g. reducing number of printers to encourage paperless office, reusing electronics and furniture) and how to avoid potential lock-ins and negative environmental impacts in the renovation of the office space in KN6 and the new way of working (e.g. potential rebound effect of teleworking, large amounts of electronic and furniture waste)	Active participation in the cross-agency working group on the renovation of the office space in KN6 and the new way of working	Not quantified	EMAS coordinator actively participated in cross-agency group on the future workplace	n/a

Notes: (a) See detailed action plan for electricity and paper under environmental impacts 1 and 2.

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5 Environmental management programme 2022

Table 10 Environmental management programme for the year 2022

Environmental impact	Source of environmental impact	Action plan	Responsibility for implementation	Performance indicator 2022
1. Electricity consumption	Staff-related use of electricity in offices and meeting rooms (PCs, printers, copy machines, lights, etc.)	Continue replacing desktop PCs with working stations with laptop and docking stations	ADS/DIS	Zero growth in staff-related electricity consumption per FTE employee for 2022 (based on the 5-year rolling average for 2017-2021)
		Raise awareness of energy efficiency and renewable energy solutions in home office environment to minimise potential rebound effect of teleworking	EMAS team	
2. Paper consumption	Printing documents and emails	Promote paperless office and maintain reduced printing habits adopted during the COVID-19-induced lockdown (e.g. through further reduction in MFDs per floor)	EMAS team/HoGs	Zero growth in A4 sheets printed (based on the rolling 5-year average for 2017-2021)
		Continue digitalisation of administrative workflows (e.g. implementation of SYSPER pensions)	ADS	Zero growth in A4 sheets printed per FTE employee (based on the rolling 5-year average for 2017-2021)
	Printing publications externally	Reduce the number of printed paper publications through close management of the publication plan and working towards a non-printing publication policy	COM	Zero growth in A4 sheets printed (based on the rolling 5-year average for 2017-2021)
3. Sustainable resource use	Electricity(a), paper(a), heating and water consumption	Raise awareness of resource-efficient water and energy consumption in home office environment to minimise potential rebound effect of teleworking	EMAS team/HoGs	Provision of information on sustainable resource use through intranet and EMAS Teams channel (EMAS team). In addition, cascading of information to staff in group meetings (HoGs)
		Promote resource-efficient water and energy consumption in the office to limit return to pre-COVID-19 levels	EMAS team/HoGs	

Table 10 Environmental management programme for the year 2022 (cont.)

Environmental impact	Source of environmental impact	Action plan	Responsibility for implementation	Performance indicator 2022
4. Waste generation	Waste sorting and reduction	Raise awareness of avoiding, sorting and recycling waste in home office environment to minimise potential rebound effect of teleworking	EMAS team/ADS	Zero growth in total waste per FTE employee (based on the rolling 5-year average for 2017-2021)
		Development of a 'green IT policy' as part of the EEA's climate neutrality activities (endorsed by the SMT in February 2022)	DIS	Provision of a 'green IT policy'
5. Greenhouse gas emissions	Staff business travel	Development of 'Staff travel guidance' as part of the EEA's climate neutrality activities	CNS	Zero growth in emissions (t CO_2e) from staff travel (based on the 5-year rolling average for 2017-2021), consistent with climate neutrality target. Provision of 'Staff travel guidance' Provision of information on emission reduction options for business travel through intranet and EMAS Teams channel (EMAS team). In addition, cascading of information to staff in group meetings (HoGs)
		Replace staff travel with blended meetings and videoconferencing to a large extent	HoGs/all staff	
		Promote maintaining reduced travel practices to limit return to pre-COVID-19 levels	EMAS team/HoGs	
	External participants coming to EEA-organised meetings	Development of 'EEA stakeholder meeting guidance' as part of the EEA's climate neutrality activities	CNS	Zero growth in emissions (t CO_2e) from staff travel (based on the 5-year rolling average for 2017-2021), consistent with climate neutrality target Provision of 'Visitor travel guidance' Provision of information on emission reduction options for business travel of external participants through intranet and EMAS Teams channel (EMAS team). In addition, cascading of information to staff in group meetings (HoGs)
		Replace meetings on EEA premises with blended meetings and videoconferencing to a large extent	HoGs/all staff	
		Promote maintaining reduced travel among external participants of EEA-organised meetings to limit return to pre-COVID-19 levels of emissions	EMAS team/HoGs	

Table 10 Environmental management programme for the year 2022 (cont.)

Environmental impact	Source of environmental impact	Action plan	Responsibility for implementation	Performance indicator 2022
6. Various negative environmental impacts of the EEA	All procurement	Raise awareness of the appropriate implementation of green procurement	ADS	Provision of information on green procurement for staff
		Calls to tender for relevant services must include environmental criteria according to the type of goods purchased	ADS/all staff	100% of procurement aligned with EU directives 100% of purchases are carried out against best available environmental criteria
7. Various positive environmental impacts of EEA awareness raising	Green internal and external communication/ awareness-raising activities(b)	Develop and implement an integrated approach to internal and external communication (communication plan)	EMAS team/COM	Communication plan developed
		Initiate and contribute to knowledge-exchange activities in the EUAN, the EU Greening Network, GIME and EPA Network	EMAS team/ADS	Active participation in the EUAN, greening network, GIME and EPA Network
8. Environmental economic and social impacts	All EEA activities	Raise awareness of synergies between positive environmental impacts and staff health and well-being aspects (e.g. reduced meat consumption, commuting by cycling)	EMAS team/well-being coordinator	Provision of information on synergies between positive environmental impacts and staff health and well-being aspects through intranet and EMAS Teams channel
9. Internal environment	Environment in buildings, health and safety aspects	Provide information on how to maximise environmental co-benefits in the renovation of the office space in KN6 and the new way of working	EMAS team	Active participation in the cross-agency working group on the renovation of the office space in KN6 and the new way of working

Notes: (a) See detailed action plan for electricity and paper under environmental impacts 1 and 2.
(b) See targeted internal awareness-raising activities under environmental impacts 1-6.
ADS, EEA Administrative Services; CNS, EEA Coordination, Network and Strategy; COM, EEA Communication; DIS, EEA Data and Information Services; EPA Network, European Network of the Heads of Environment Protection Agencies; EUAN, EU Agencies Network; FTE, full-time equivalent; GIME, informal group on environmental management; HoGs, Heads of Group; IT, information technology; KN6, Kongens Nytorv 6; MFD, multifunctional device; SMT, senior management team.

Annex 1

A. High-ambition-level pathway towards a climate-neutral EEA

The European Green Deal's ambition for the EU is to achieve at least a 55% net reduction in emissions by 2030 compared with 1990 and to become climate neutral by 2050. In this context, the European Commission has committed to reach climate neutrality in its operations by 2030 and many EU institutions have followed suit, for example the European Parliament, the Economic and Social Committee, the European Court of Auditors and a number of European agencies.

In November 2020, the EEA also decided to become climate neutral. During 2021, the EEA contracted Ramboll and CO2logic to support the development of concrete pathways towards making its operations climate neutral. The objective of the climate neutrality pathways is to identify an array of feasible actions to reduce the EEA's greenhouse gas emissions to help deliver climate neutrality by 2030 and to compensate for (offset) remaining emissions through purchased carbon removal credits.

In January 2022, the Executive Director endorsed the high-ambition-level pathway, which assumes that more than 50% of the EEA's greenhouse gas emissions will be reduced by 2030 compared with 2019 levels. Specific measures to achieve cuts in greenhouse gas emissions are under consideration and will be prioritised and approved on an annual basis as part of the EEA's environmental management activities.

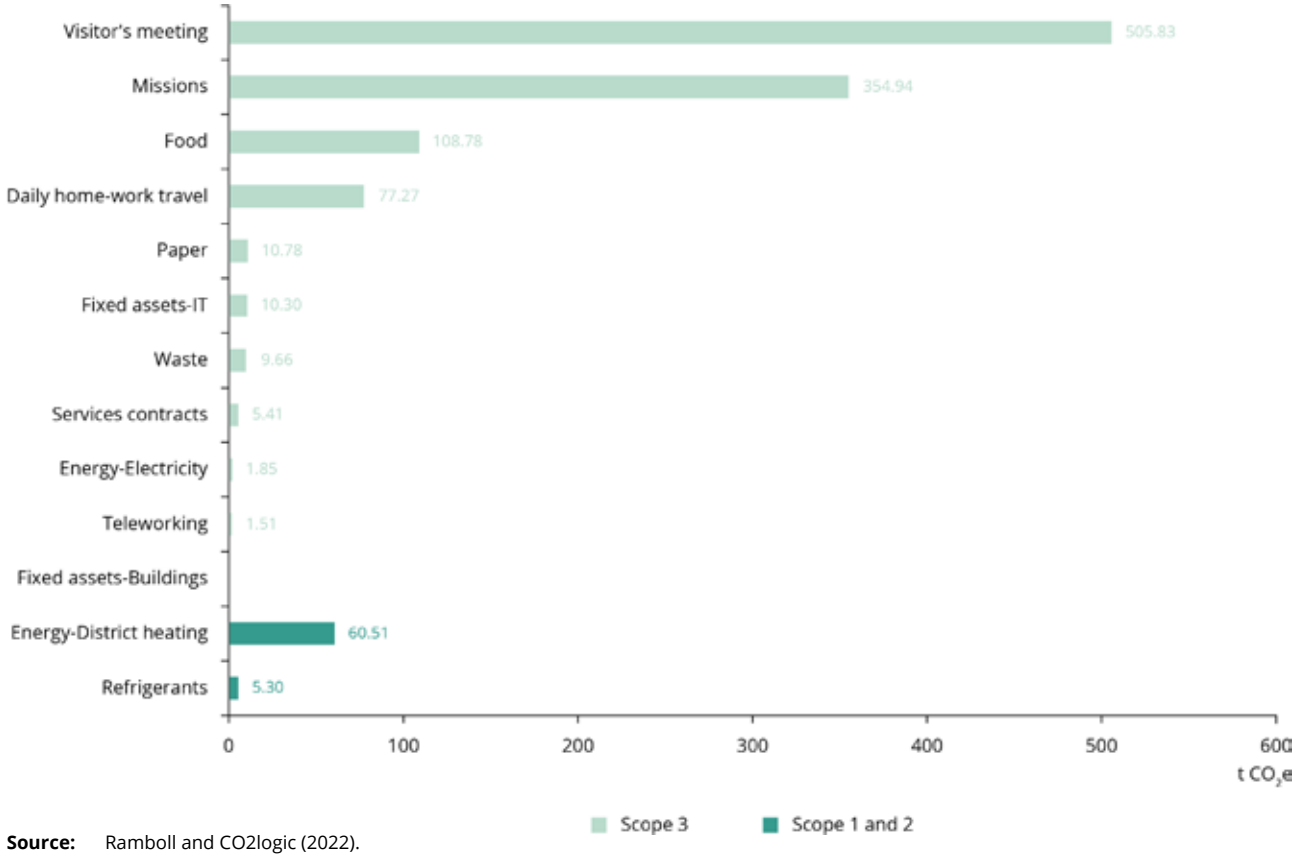
Results of the carbon footprint assessment

The year 2019 was selected as the base year for the climate neutrality pathways, as it represents the last full year of 'normal' EEA operations pre-COVID-19. In 2019, the EEA's carbon footprint was estimated to be 1,204t CO_2e (carbon dioxide equivalent) compared with 312t CO2e in 2020. Visitor meetings and staff travel together comprised 73% of the EEA's carbon footprint in 2019, by far the two main contributions.

The EEA's carbon footprint was calculated in accordance with the Bilan Carbone methodology (developed by ADEME) and the Greenhouse Gas Protocol (developed by the World Resources Institute and the World Business Council for Sustainable Development) (Figures A.1 and A.2). Both methodologies are in line with the ISO 14064 standard and commonly used by EU institutions. In accordance with these methods, direct greenhouse gas emissions that are owned and controlled by the EEA and certain indirect emissions not directly controlled by the Agency were included in the scope of the carbon footprint:

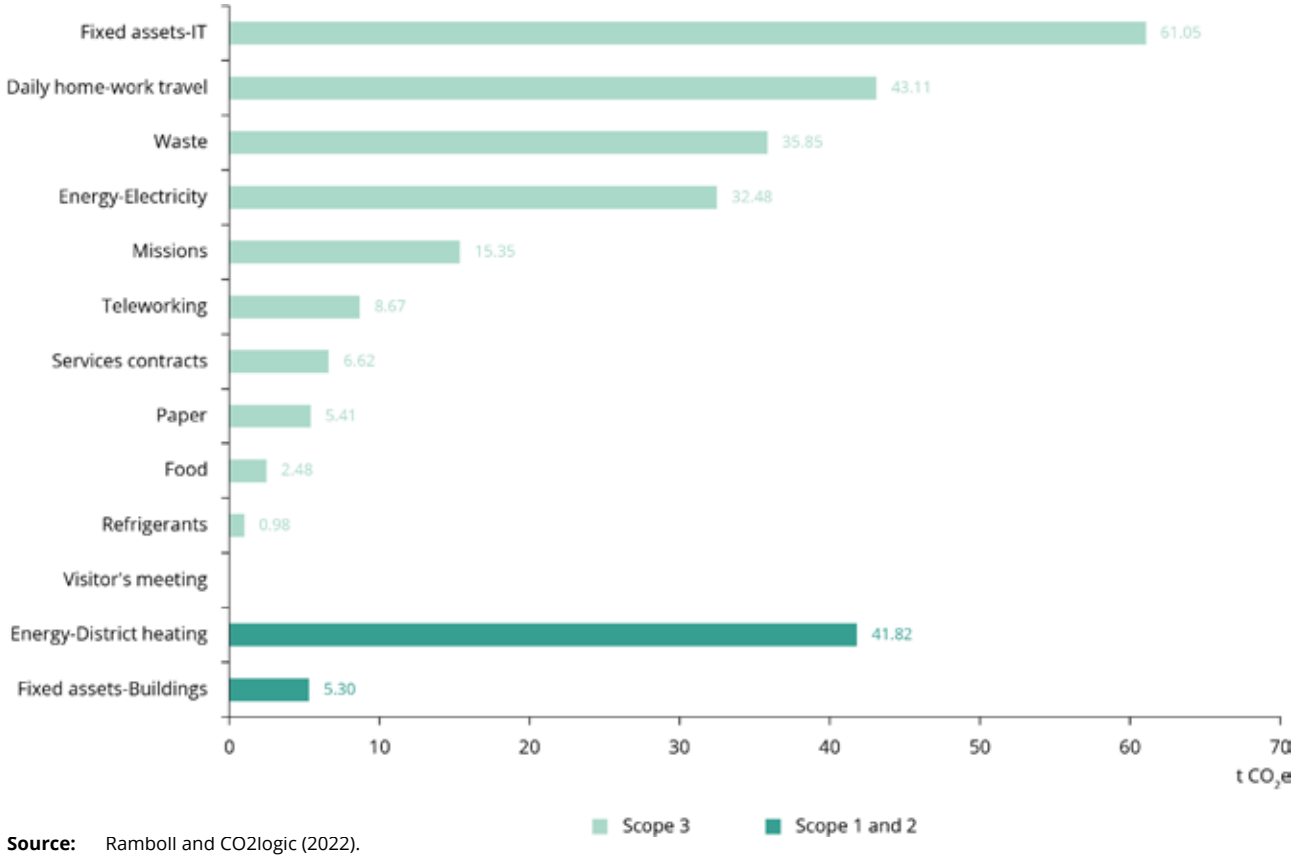
- refrigerant losses on the premises (direct);
- electricity and district heating (indirect);
- purchased services, e.g. canteen;
- security and cleaning contracts (indirect);
- purchased goods, e.g. paper for printing and reports, catered food (indirect);
- fixed assets, e.g. building, information technology (IT) equipment (indirect);
- staff and visitor travel, staff commuting, teleworking (indirect);
- waste management (indirect).

Figure A.1 The EEA's carbon footprint in the reference year 2019



Source: Ramboll and CO2logic (2022).

Figure A.2 The EEA's carbon footprint in the reference year 2020



Source: Ramboll and CO2logic (2022).

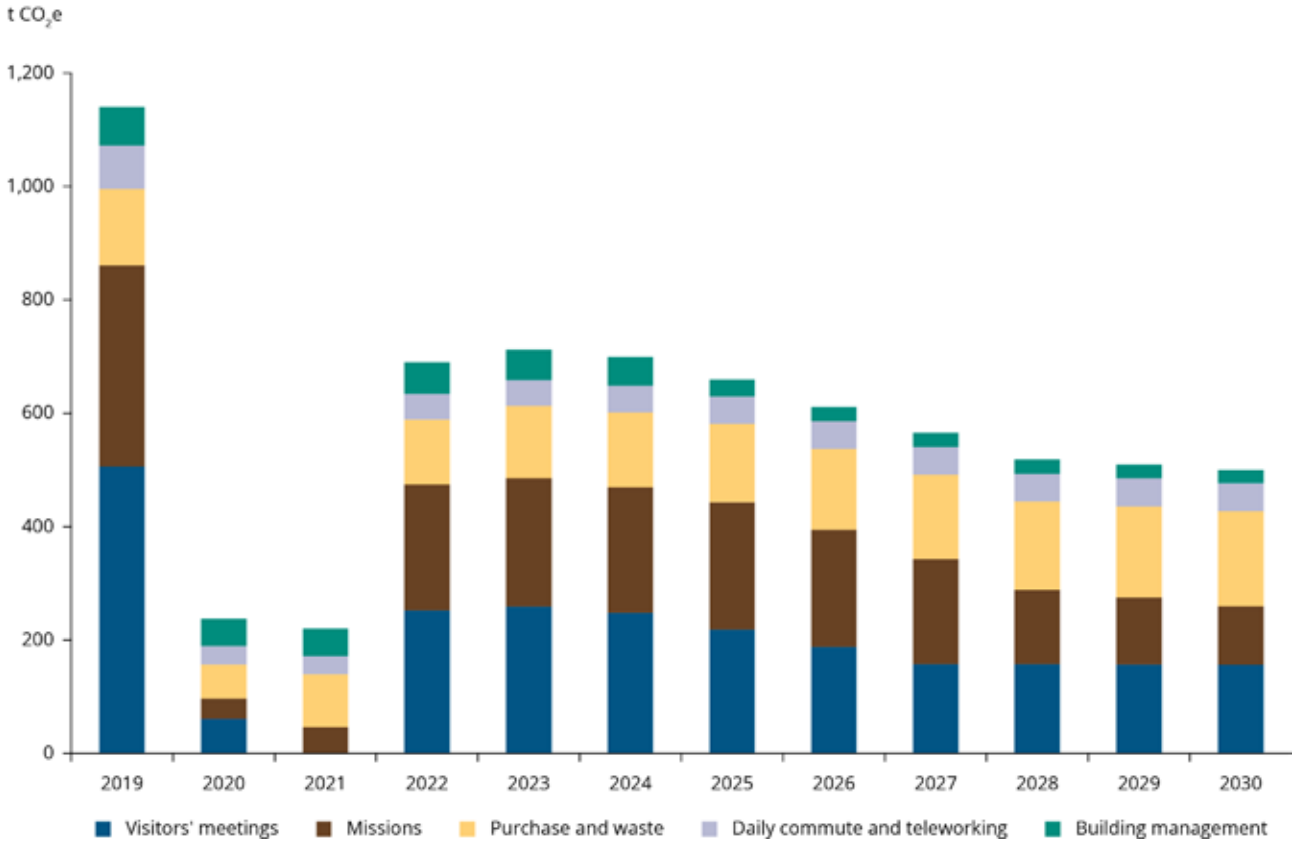
Defining an ambition level for reductions

The consultants developed two pathways, a high- and a medium-ambition-level pathway. The pathways were developed from the 'bottom up' by aggregating identified greenhouse gas mitigation measures, each of which can be implemented with higher or lower ambition. This approach offers a range of possibilities between what could be considered lower and upper boundaries for potential pathways to reduce the EEA's carbon footprint. The use of removal credits is still needed to achieve climate neutrality for both pathways but to a differing extent. The greenhouse gas mitigation measures were defined based on a comprehensive set of qualitative and quantitative criteria including plausibility (implementation, co-benefits and drivers), feasibility (investment and operational costs, applicability and site sensitivity) and impact. This follows an approach similar to the one the consultants followed when delivering work for the European Commission's climate neutrality roadmap. The mitigation actions target GHG emissions in five areas:

- building management — electricity and heating consumptions and refrigerants;
- staff travel — travel on missions (trains, flights, hotels);
- new ways of working — daily commute and teleworking;
- visitor travel — visitors' travel paid by the EEA (trains, flights, hotels);
- purchase of goods and services — purchase (IT equipment, canteen contract, services contract, etc.) and waste management.

The high-ambition-level pathway is estimated to deliver a 54% reduction in emissions by 2030 compared with the 2019 carbon footprint (Figure A.3). This implies that around 46% of residual emissions will still need to be compensated for to reach climate neutrality. Expressed in relative terms per assumed FTE employee, the reduction is 67% of emissions per FTE staff member, i.e. from 5.8t CO_2e/FTE to 1.9t CO_2e/FTE in 2030. For comparison, the 'COVID-19' 2020 level was 1.3t CO_2e/FTE.

Figure A.3 High-ambition-level emission reduction pathway 2019-2030



Source: Ramboll and CO2logic (2022).

The medium-ambition-level pathway is estimated to deliver a 28% reduction in emissions by 2030 compared with the 2019 carbon footprint. This means that 72% of residual emissions would need to be compensated for to reach climate neutrality.

A significant relative reduction in carbon footprint per FTE employee is also observed in this pathway, i.e. a decrease from 5.8t CO_2e/FTE to 3.1t CO_2e/FTE in 2030 (2.5 times higher than the 'COVID-19' 2020 level of 1.3t CO_2e/FTE).

Table A.1 Comparison of the most impactful measures in medium-ambition- and high-ambition-level pathways

Emissions source domains	Base year emissions 2019 (t CO_2e)	Share of total emissions 2019 (%)	Actions: emission reductions (medium/high) (% of 2019 source domain emissions)
Staff travel	355	28%	Staff guidance/policy for emissions (and carbon budget constraints): -33%/-50% of physical missions and related emissions.
			50% the of remaining missions to Brussels and some other cities7 by train_ -1%/-22%
Visitor meetings	506	44%	Staff guidance for visitors' meetings (and/or budget constraints): 20%/-40% of visitors ' physical meetings and related emissions.
			Obligation to always propose hybrid meeting options for visitors: 25%/-50% of the remaining physical travels
Building management	68	6%	Building insulation_ -9%/-18% and heating management optimisation: -9%/-27%
			Office space reduction (-30%/-40%)

Source: Emma Ferrari, REDISCOVER Nature EEA.

Abbreviations

ADS	Administrative Services
CAS	Coordination and Strategy
COM	Communication
DIS	Data and Information Services
EEA	European Environment Agency
EECS	European Energy Certificate System
Eionet	European Environment Information and Observation Network
EMAS	EU Eco-Management and Audit Scheme
EMS	Environmental management system
EPA	Environmental Protection Agency
EU	European Union
EUAN	EU Agencies Network
FTE	Full-time equivalent
GHG	Greenhouse gas
GIME	Group on Environmental Management
HoGs	Heads of group
ICT	Information and communications technology
IT	Information technology
KN6	Kongens Nytorv 6
KN8	Kongens Nytorv 8
MFD	Multifunctional device
RECS	Renewable Energy Certificate System
SMT	Senior management team

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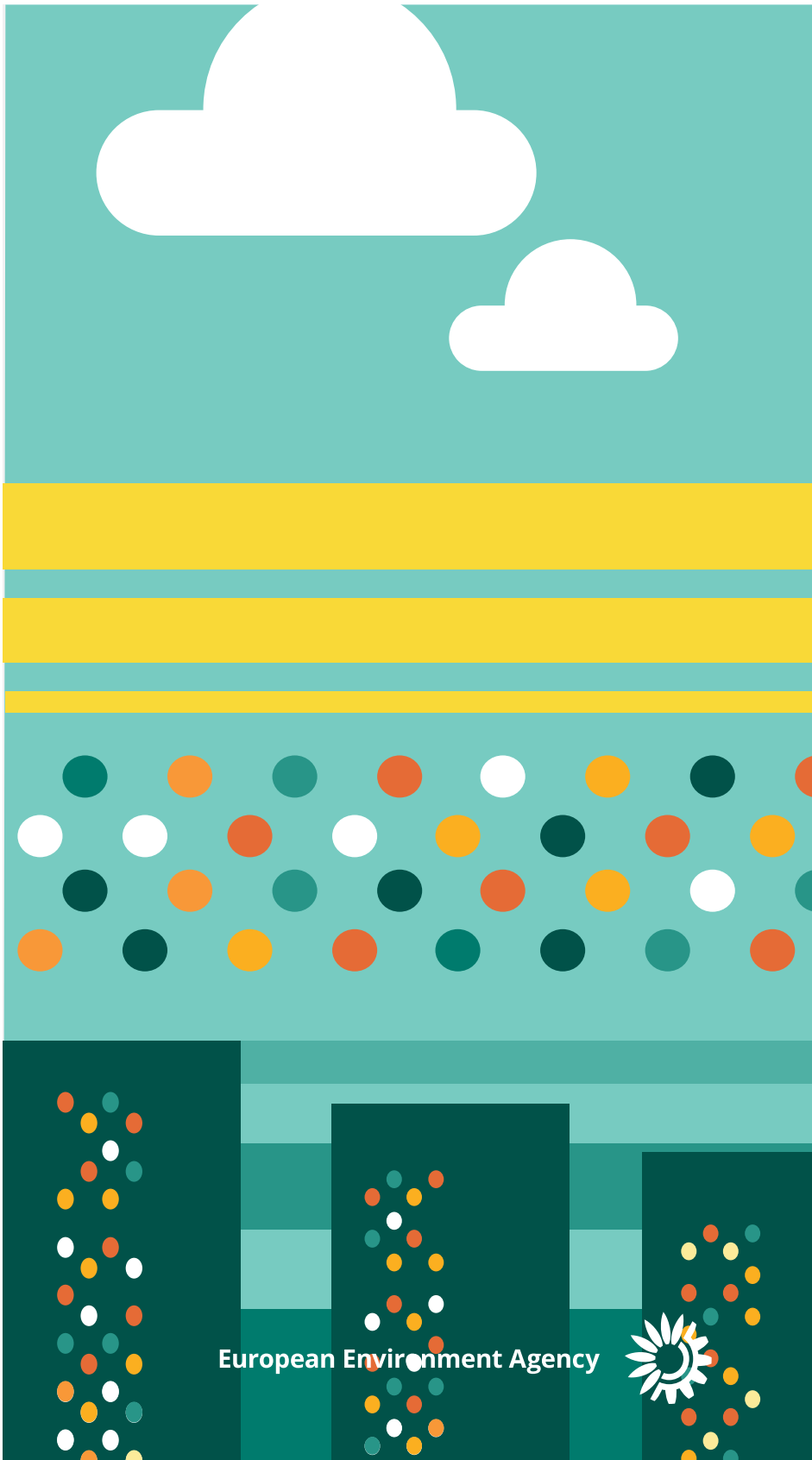

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