Environmental statement

2023

Presenting our results for 2022
Full translation of the 2022 environmental statement

About this report

This environmental statement provides stakeholders and the public with information on the ECA's environmental performance and activities for 2022. Its aim is to raise awareness of our environmental management policies.

The ECA was officially registered in the eco-management and audit scheme (EMAS) under No LU-000004 on 30 March 2017. The certificate issued by the Luxembourg authorities was renewed for a three-year period on 16 June 2022.

This document has been drafted in accordance with the EMAS III Regulation[1] and is available on our *website*.

It was adopted by the EMAS steering committee on 11 October 2023 and verified by Vinçotte during an external audit carried out on 19 and 20 October 2023.

[1] Commission Regulation (EU) 2018/2026 of 19 December 2018 amending Annex IV to Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) and Commission Regulation (EU) 2017/1505 of 28 August 2017 amending Annexes I, II and III to Regulation (EC) No 1221/2009 of the European Parliament and of the Council allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).

Contents

Foreword

Committed to protecting the environment!

The European Green Deal establishes an ambitious target of net-zero greenhouse gas emissions in Europe by 2050. As an EU institution, the ECA is committed to protecting the environment, both in its audit activity and in its administrative management. The number of ECA audits on environmental issues and the implementation of the UN Sustainable Development Goals is increasing each year. These audits represent a major contribution by our institution to improving the environmental policies of the EU and member states.

Following the renewal of its certification in 2022, the ECA is starting its fourth EMAS cycle and has set itself new targets for 2023-2025, along with a more ambitious environmental action plan.

The year of 2022 was marked by the energy crisis, mainly due to the war in Ukraine. The ECA had to lead by example by taking further energy-saving steps and achieving the 15 % reduction in gas consumption proposed in July 2022 by the Commission and the Council in its plan "Save Gas for a Safe Winter".

I hope that this statement will give you an overview of the work we have done, thanks to both the individual and collective efforts of all our colleagues. I would like to thank them very much for their active support, and I am confident that we will continue to make progress together in the coming years, furthering our joint commitment to protecting the environment.

Zacharias Kolias
Secretary-General

Executive summary

The environmental results for 2022 are no longer marked by the health crisis, as they were in 2020 and 2021, but rather by the energy crisis, as shown in Table 1:

- In 2022, thanks both to a range of energy-saving measures and to efforts by all staff, the ECA's energy needs fell to the lowest recorded level since all staff were brought together on the same premises in 2013. This was despite a very hot summer and the fact that more staff were in the office than in 2021.
- The number of ECA staff has increased by 5 % (in FTE) since 2014 in the same buildings, which has had a positive impact on some indicators and environmental aspects.

Table 1 — Summary of environmental results in 2022

Indicators per FTE[2]		IN ONE YEAR	SINCE 2014
Electricity	3.57 MWh/FTE	-2.7 %	**-34.5 %**
Heating (standardised consumption)	3.08 MWh/FTE	-6.0 %	**-22.2 %**
Paper	2 929.33 pages/FTP	**+46.5 %**	**-83.5 %**
Emissions	8.25 tCO_2e/FTE	+3.9 %	**-29.5 %**
Waste[3]	109.13 kg/FTE	**+39.9 %**	**-33.7 %**
Water	7.37 m^3/FTE	**+24.0 %**	**-45.3 %**

Source: European Court of Auditors.

[2] FTE: full-time equivalent staff member

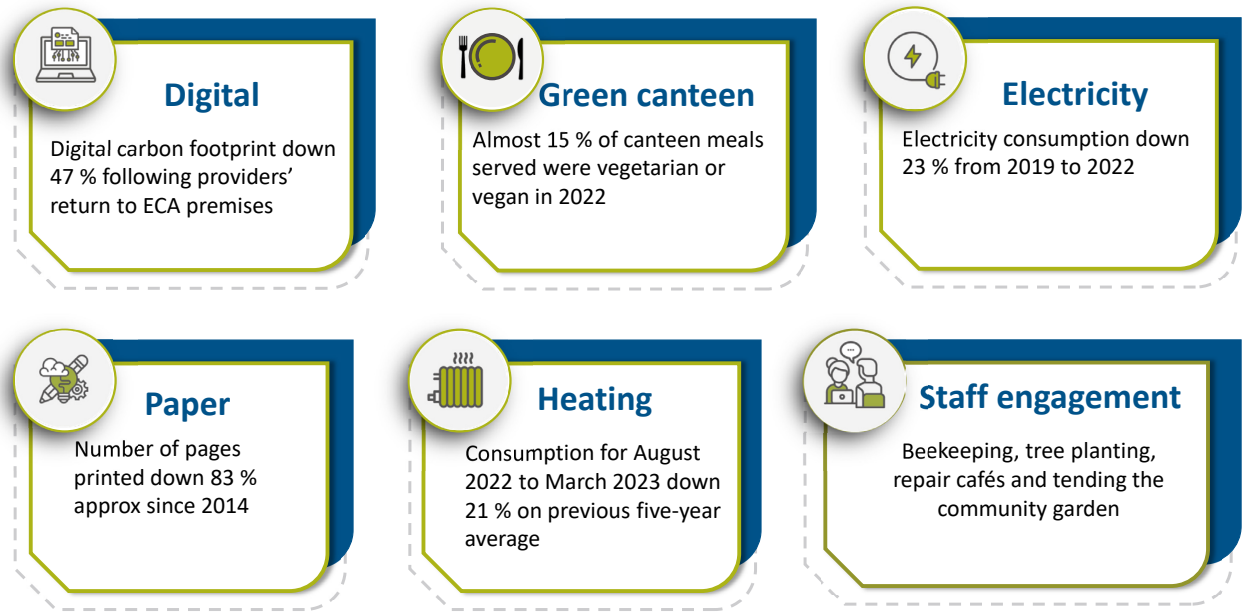
[3] The measurement perimeters are not equivalent between 2014 and 2021.

- Indicators linked to staff presence on site (such as paper consumption, meal emissions and waste) are of course higher than in 2021 now that the COVID-19 restrictions have been lifted. However, they all remain below 2019 levels and significantly below 2014 levels.

- Business travel resumed in 2022 but remains 61 % below 2019 levels in terms of kilometres travelled. This is explained by two factors: the use of remote meeting tools, which are now a well-established part of our working habits; and the cost of transport, which has increased sharply while the available budget has remained unchanged.

- The K2 renovation project was completed in March 2023, and the resulting modernisation of technical facilities has had a positive impact on the building's energy consumption.

Figure 1 – 2022 in figures



Source: European Court of Auditors.

Most of the targets set for 2020-2022 were achieved. Some targets concerning energy, paper and reducing business travel were even significantly exceeded, even after the end of the pandemic. This demonstrates our institution's effective, continuous efforts to reduce its environmental impact.

III The number and value of contracts awarded by the ECA continue to be affected by the unpredictability of future needs due to the pandemic. This explains why not all targets for green procurement have been met. The target for commuting was also not achieved, due to the reduction in carpooling due to the pandemic, the increase in the number of ECA staff and the decrease in the number of teleworking days between 2021 and 2022.

IV In 2022, a study was carried out on the potential to reduce the ECA's greenhouse gas emissions. The potential emission reductions were assessed on the basis of annual carbon footprint calculations and ideas gathered during the consultation of all ECA departments and staff in spring 2022. The operational teams identified and evaluated 371 ideas for reducing emissions, leading to three roadmaps. Based on this reflection, the ECA has adopted a new EMAS action plan for 2023-2025.

01.

Introduction

Introduction

This environmental statement is the eighth such annual report published by the ECA. It was prepared in accordance with the requirements of Regulation (EC) No 1221/2009, Annex IV of which was amended by Commission Regulation (EU) 2018/2026 of 19 December 2018.

The first part of this statement presents the ECA and its buildings.

The ECA

01 Established in 1977 and based in Luxembourg, the ECA is the European Union's external auditor. Its activity has a NACE (Nomenclature of Economic Activities) code of 99.0 ("Activities of extraterritorial organisations and bodies").

02 It was set up to audit the EU's finances. Its audit work covers the EU budget and policies, mainly in areas related to growth and jobs, value added, public finances, environment and climate action. The ECA audits both budget revenue and expenditure.

03 Through our independent, professional, high-impact audit work, we assess the economy, effectiveness, efficiency, legality and regularity of EU actions in order to improve accountability, transparency and financial management, thereby bolstering citizens' confidence and allowing the current and future challenges facing the EU to be more effectively addressed.

04 We want to be at the forefront of public finance auditing and contribute to a more resilient and sustainable European Union, one which is true to its founding values.

05 The ECA operates as a collegiate body of 27 Members, one from each EU Member State. The Members are appointed by the Council after consultation with the European Parliament for a renewable term of six years. Members elect one of their number as President for a renewable term of three years. The Court has five Chambers, to which Members and auditors are assigned. Audit tasks are carried out by the ECA's staff under the supervision of the Members assigned to their Chamber.

06 The President of the Court acts as a first among equals. He chairs Court meetings and ensures that Court decisions are implemented and that the institution and its activities are soundly managed.

07 The Secretary-General is the ECA's most senior member of staff. The holder of the position is appointed by the Court for a renewable period of six years. The Secretary-General is responsible for the ECA's administration and staff. He supervises the Directorate for Human Resources, Finance and General Services, the Directorate for Information, Workplace and Innovation, and the Language and Editorial Directorate.

08 Our strategy for 2021-2025 contains three strategic objectives:

- improve accountability, transparency and auditing across all types of EU action;
- focus our audits on the areas and themes where we can add the most value;
- provide strong audit assurance in a challenging and changing environment

09 We carry out our audits in accordance with international auditing standards and the International Code of Ethics for Public-Sector Auditors, which we apply in the specific EU context. These standards ensure the quality, professionalism and efficiency of our work. We also contribute to the development of standards in the framework of our international cooperation activities.

10 The results of the ECA's work are used by the European Commission, the European Parliament, the Council and the Member States to oversee and, where necessary, improve the management of the EU budget. The ECA's work is an important basis for the annual discharge, a procedure in which Parliament decides, on the basis of a recommendation from the Council, whether the Commission has implemented the previous year's budget satisfactorily.

11 The European Court of Auditors publishes the results of its audit work in different types of reports depending on the type of audit carried out: annual reports, specific annual reports and special reports. It also publishes opinions and reviews.

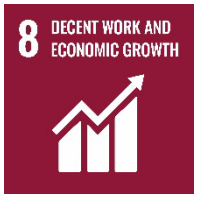
12 The positive environmental impact of the ECA's reports is not easily measurable. However, environmental audits and audits related to the Sustainable Development Goals are becoming an ever greater part of the ECA's work. One of the audit chambers, Chamber I – Sustainable use of natural resources, exclusively audits topics related to the environment and sustainable development:

- climate change and energy;
- environment;
- agriculture and rural development;

- maritime affairs and fisheries;
- health, food safety and consumers.

13 In 2022, we published 29 special reports and reviews, covering many of the challenges facing the EU. Of all the year's publications 62 % covered at least one of the UN Sustainable Development Goals (SDGs). Two publications referred directly to the SDGs, while 24 % related directly to climate action, renewable energy or marine life, as shown in Table 2 below.

Table 2 – Number of 2022 publications linked to the various UN Sustainable Development Goals

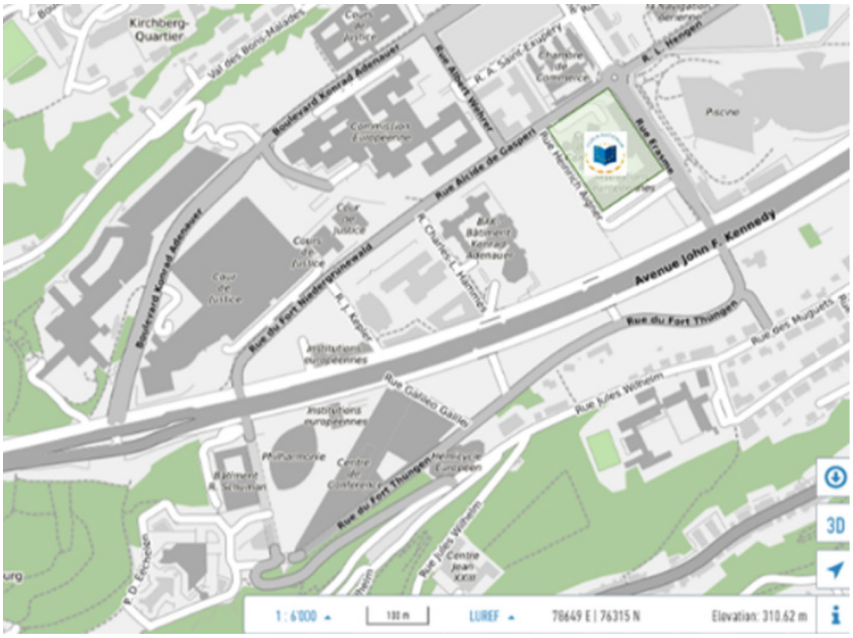
SDG	Publication(s) specifically mentioning SDG	Publication(s) with content relating to SDG
		SR 19/2022: EU COVID-19 vaccine procurement
	RV 01/2022: Energy taxation, carbon pricing and energy subsidies	SR 02/2022: Energy efficiency in enterprises SR 22/2022: EU support to coal regions
		SR 07/2022: SME internationalisation instruments SR 08/2022: SME Competitiveness SR 22/2022: EU support to coal regions SR 28/2022: Support to mitigate Unemployment Risks in an Emergency (SURE)

SDG	Publication(s) specifically mentioning SDG	Publication(s) with content relating to SDG
		SR 02/2022: Energy efficiency in enterprises SR 03/2022: 5G roll-out in the EU SR 07/2022: SME internationalisation instruments SR 08/2022: SME Competitiveness SR 12/2022: Durability in rural development SR 15/2022: Measures to widen participation in Horizon 2020 SR 23/2022: Synergies between Horizon 2020 and European Structural and Investment Funds SR 24/2022: e-Government actions targeting businesses
		SR 04/2022: Investment funds SR 12/2022: Durability in rural development
		SR 02/2022: Energy efficiency in enterprises SR 09/2022: Climate spending in the 2014-2020 EU budget SR 22/2022: EU support to coal regions
	SR 20/2022: EU action to combat illegal fishing	
		SR 01/2022: EU support for the rule of law in the Western Balkans SR 05/2022: Cybersecurity of EU institutions, bodies and agencies SR 11/2022: Protecting the EU budget - Better use of blacklisting needed SR 14/2022: The Commission's response to fraud in the Common Agricultural Policy SR 18/2022: EU institutions and COVID-19

The ECA's buildings

14 The ECA employs around 980 members of staff (auditors, translators and administrative staff) from all EU Member States. It currently owns and occupies three buildings (K1, K2 and K3), located in the heart of the European quarter of Kirchberg in Luxembourg. The site has a total surface area of 18 473 m² and the buildings have a gross surface area of 81 490 m².

Figure 2 – Map of Kirchberg – 1: 6 000

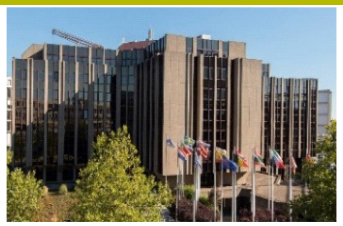
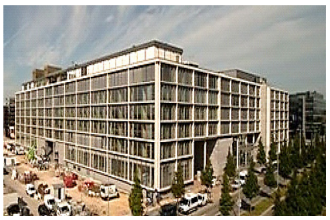


Source: geoportal.lu.

Figure 3 – Aerial view of the buildings in the European quarter

Source: European Court of Auditors.

Table 3 – Detailed information on the ECA's buildings

Building	K1	K2	K3
			
Year	1988	2003	2012
Basement	- 3 levels - 225 parking spaces - archives and workshops - library	- 2 levels - 192 parking spaces - sports centre	- 2 levels - 165 parking spaces - workshop and printing - kitchen and archives
Floors	- ground floor: accreditation pavilion and offices six floors of office space including Members' cabinets and the Court's meeting room - 7th floor: equipment rooms	- ground floor: office space, foyer and conference room with 22 interpreting booths - five floors of office space - 6th floor: equipment rooms	- ground floor: training centre, cafeteria and canteen - five floors of office space - 6th floor: equipment rooms, lounge and reception rooms

Source: European Court of Auditors.

Figure 4 – Aerial view of the ECA's buildings

Source: European Court of Auditors.

02.

Environmental management

Environmental management

This section presents the ECA's environmental management system (EMS).

15 The ECA's environmental management system (EMS) complies with EMAS III standards[4] and meets the certification requirements of international standard ISO 14001: 2015. Developed by the European Commission, the EU Eco-Management and Audit Scheme (EMAS) is a management tool for organisations to evaluate, report on and improve their environmental performance.

16 The EMS aims to improve the ECA's environmental performance by minimising the impact of its activities on the environment, in particular through more efficient use of energy and natural resources, and better waste management. It helps to make buildings more functional, economical and comfortable for occupants. The EMS also raises staff members' awareness of their environmental impact and of good environmental practices both at work and at home.

How the EMS works

17 We carry out a regular environmental review to identify the potential effects of our activities on the environment. The analysis covers the following:

- internal and external risks that could affect the EMS or the ECA's ability to achieve environmental objectives (contextual analysis);
- stakeholder needs and expectations;
- opportunities related to the ECA's environmental aspects;
- environmental aspects and impact;
- legal requirements and other obligations relating to the environment.

[4] Commission Regulation (EU) 2018/2026 of 19 December 2018 amending Annex IV to Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS) and Commission Regulation (EU) 2017/1505 of 28 August 2017 amending Annexes I, II and III to Regulation (EC) No 1221/2009 of the European Parliament and of the Council allowing voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).

18 We identify the most significant risks and draw a distinction between direct and indirect environmental aspects. Based on this review we define our environmental policy, on the basis of which an environmental programme composed of several objectives is drawn up.

19 To ensure these objectives are achieved within a reasonable time frame, we devise thematic action plans and adopt any procedures necessary, taking into account the significant elements identified.

20 Internal EMAS-trained auditors regularly check on both the implementation of the environmental programme, and the EMS's compliance with EMAS and other requirements. Regulatory compliance audits are carried out in all three ECA buildings, and lead to the drawing up of a compliance action plan.

21 The conclusions of these audits are examined at regular management reviews chaired by the Secretary-General. In these reviews, performance indicators are analysed to assess the efficiency of the environmental programme.

22 The environmental statement, which is published on the ECA's *website*, sets out the objectives of the institution's environmental programme and the results achieved.

Scope of the EMS

23 The EMS applies to the ECA's activities in the broadest sense, i.e. the activities of all ECA staff, as well as others working on the premises, such as service providers. It covers all the premises occupied by the ECA, consisting of three separate buildings.

Table 4 – Occupation of buildings as of 31.12.2022

Building	Total gross surface area (m^2)[5]	Occupants[6]
K1	23 720	327
K2	18 619	227
K3	28 245	545
No fixed workplace[7]	-	8
Total	70 584	1 107

Governance of the environmental management system

24 The ECA's EMAS project owes its success to close cooperation between **the EMAS team**, **the EMAS steering committee** and **internal EMAS auditors**, as well as actions taken by **individual staff members**. Their combined efforts ensure that the ECA's environmental management system operates smoothly and produces tangible results.

25 Figure 5 shows the ECA's environmental governance structure.

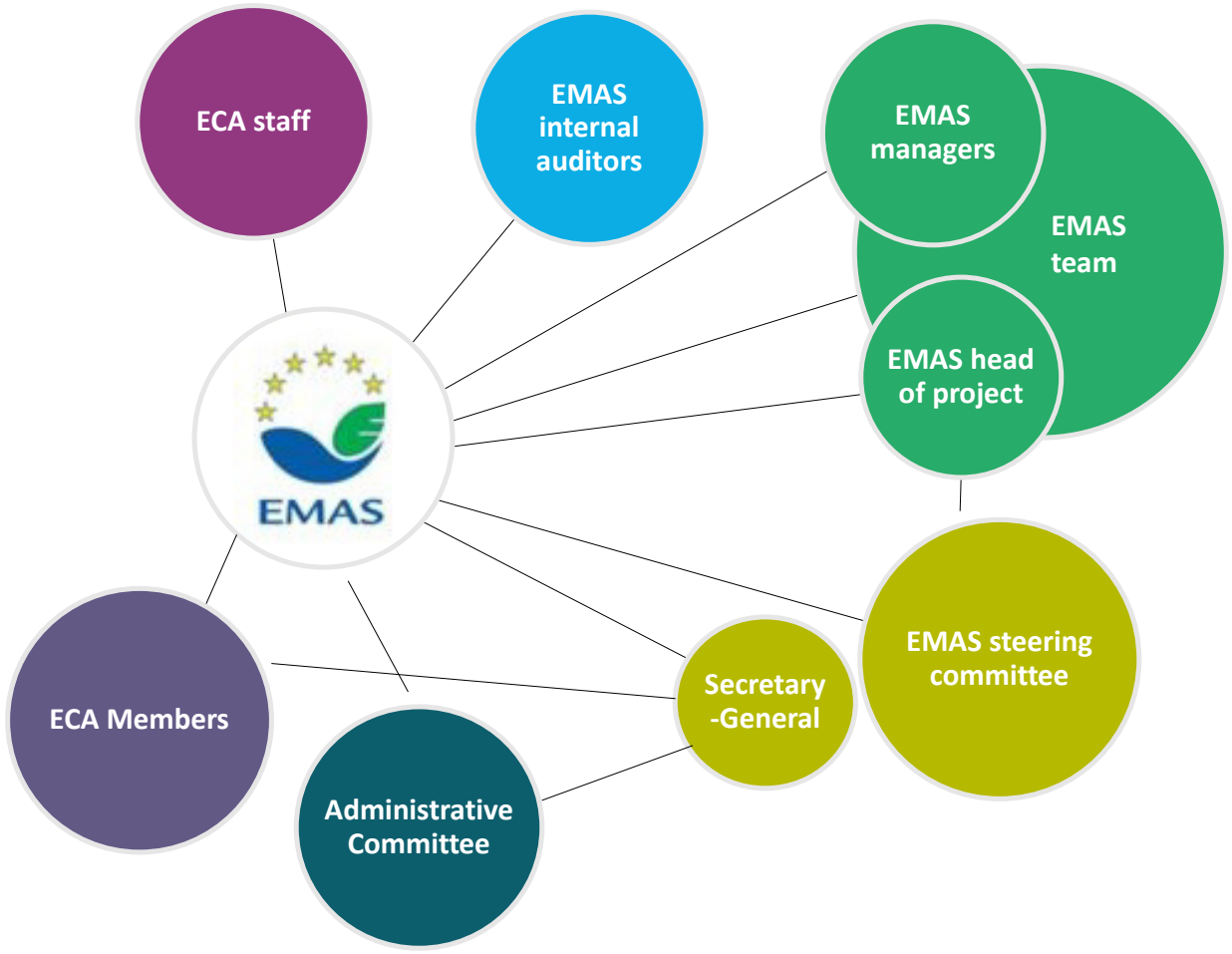
- The **ECA's Members** adopt the ECA's environmental policy and are kept informed of the EMS's performance.
- The **Administrative Committee** is regularly informed of the progress of the environmental management system activities and makes suggestions on environmental actions, objectives and goals.
- The **EMAS steering committee** supervises EMS activities, promotes continuous improvement and is accountable for the system's effectiveness. It sets environmental targets, reviews the environmental policy and action plan, and approves the environmental statement.

[5] Total gross surface area calculated in accordance with DIN 277, measured from the outer perimeter of the construction elements that mark the boundaries of the building, including coverings, measured at floor level.

[6] Occupant: any person working at the ECA (staff or external service provider)

[7] Some new colleagues, service providers and trainees do not have an allocated office due to the travel and working conditions brought about by COVID-19.

Figure 5 – EMAS governance at the European Court of Auditors



- The **EMAS steering committee** is chaired by the **Secretary-General**. The committee comprises the directors of the departments concerned with environmental management, as well as a representative of the ECA's audit chambers.
- The **head of the EMAS project** is responsible for coordinating the maintenance of the EMS, reporting to the EMAS steering committee on progress made in implementing the environmental programme and objectives, and organising awareness-raising campaigns and internal environmental audits.
- **The staff responsible for EMAS** support the operational monitoring of the EMS within their respective departments and implement the measures entrusted to them.
- The **manager** and **staff responsible for the EMAS project** comprise the **EMAS team.** The EMAS team circulates relevant information within the ECA.
- The **internal EMAS auditors** carry out internal environmental audits in accordance with the audit plan.

- **All ECA staff** are expected to adhere to the practices adopted under EMAS, and continually strive to reduce the environmental impact of their day-to-day work.

Environmental policy

26 The ECA's environmental policy sets out the institution's commitment to continuously improving its environmental performance. It has been communicated to everyone working for the Court (staff and external service providers) and is publicly available on the institution's *website*.

COUR DES COMPTES EUROPÉENNE

LA POLITIQUE ENVIRONNEMENTALE DE LA COUR DES COMPTES EUROPÉENNE

Conformément à l'engagement de l'Union européenne en faveur de l'environnement, la Cour des comptes européenne (la Cour) est investie d'une responsabilité particulière en ce qui concerne la réduction constante de l'incidence environnementale de ses activités.

À cette fin, la Cour a mis en place un système de management environnemental conformément au règlement EMAS de l'UE, en vertu duquel la Cour s'engage à:

- *minimiser l'incidence environnementale des activités quotidiennes;*
- *améliorer constamment les résultats en matière d'environnement;*
- *respecter toutes les dispositions législatives et obligations pertinentes en matière d'environnement.*

En particulier, la Cour s'engage à:

- *mettre en place des mesures pour prévenir la pollution et réduire les émissions de dioxyde de carbone;*
- *promouvoir l'utilisation efficiente de l'énergie et à prendre des mesures pour diminuer la consommation d'électricité et d'eau;*
- *garantir une utilisation plus efficiente du papier afin d'en réduire la consommation;*
- *intégrer des critères environnementaux dans ses procédures de marchés publics;*
- *recourir aux meilleures pratiques en ce qui concerne la gestion des déchets;*
- *encourager l'ensemble du personnel à agir dans une perspective de durabilité et à contribuer activement à la réalisation des objectifs de cette politique.*

La Cour est résolue à mettre en œuvre et à poursuivre la politique environnementale décrite ci-dessus et à en informer le personnel, les contractants et toute autre partie intéressée.

Les engagements en matière d'environnement doivent se traduire en mesures spécifiques tenant compte des exigences en matière de ressources humaines, matérielles et financières. Le système de management environnemental doit être conçu de manière à présenter un bon rapport coût-efficacité.

Cette politique environnementale et le système de management environnemental s'appliquent aux activités de la Cour des comptes européenne au sens large du terme, à savoir celles de l'ensemble du personnel et des autres employés (y compris les sous-traitants travaillant sur les lieux, le personnel en mission et les agents sur le chemin du travail). Ils concernent les trois bâtiments que la Cour occupe au 12, rue Alcide De Gasperi, à Luxembourg.

Luxembourg, le 27 février 2018

Eduardo Ruiz García
Secrétaire général

Klaus-Heiner Lehne
Président

Analysis of environmental aspects and impact

27 Once a year, the ECA carries out an analysis of the environmental aspects of its activities on the environment and their impact. This analysis describes environmental aspects, classifies them as direct or indirect and indicates the values attributed to each of them according to the assessment of their significance.

28 The direct aspects associated with the ECA's activities are those over which the ECA has direct management control. Indirect aspects result from interactions with third parties and are those which the ECA can only influence.

Table 5 — Significant environmental aspects

Environmental aspect	Environmental impact	Activities
 Air emissions	– Greenhouse effect – Air pollution	– Work-related travel, commuting of staff and Members – Event organisation and participation
 Energy consumption	– Depletion of natural resources – Greenhouse effect	– Building occupancy – IT equipment – Event organisation and participation
 Consumption of natural resources	– Depletion of natural resources – Air, soil and noise pollution – Reduced biodiversity – Ozone layer depletion	– Work-related travel, staff commuting – ECA vehicle leasing – Event organisation and participation
 Waste generation, storage and treatment	– Air, water and soil pollution – Depletion of natural resources	– Cleaning, maintenance and renovation work – Office activities

29 These aspects are assessed on the basis of three criteria: frequency, severity and control. Details of all significant aspects of the ECA's activities for this year are listed in Table 5. The table takes into account the measures already in place.

30 Compared to previous years, some aspects are no longer considered significant, such as document printing and aspects relating to measures taken during the pandemic. Other aspects are again considered significant, such as business travel.

2020-2022 environmental programme

31 The environmental programme for the 2020-2022 period is now closed. This programme was divided into two sections: an action plan covering eight topics, and a communication and training plan based on three objectives. Of the 49 actions included in the final version of the action plan:

- 17 are recurrent tasks to be carried out each year;
- 21 were carried out in 2022, and five were or will be carried out in 2023;
- five have been postponed due to the pandemic, and only one has not started.

The plan's implementation rate is 88 %.

2023-2025 environmental programme

32 For the 2023-2025 period, the ECA has established a new environmental programme aimed at addressing various themes identified in the course of its environmental analysis and reducing the impact of the significant environmental aspects of its work. As in the past, this programme will have two parts: an action plan broken down into eight themes, and a communication and training plan.

New objectives for 2023-2025

33 New general and specific objectives, presented in Table 6, have been established on the basis of the following considerations:

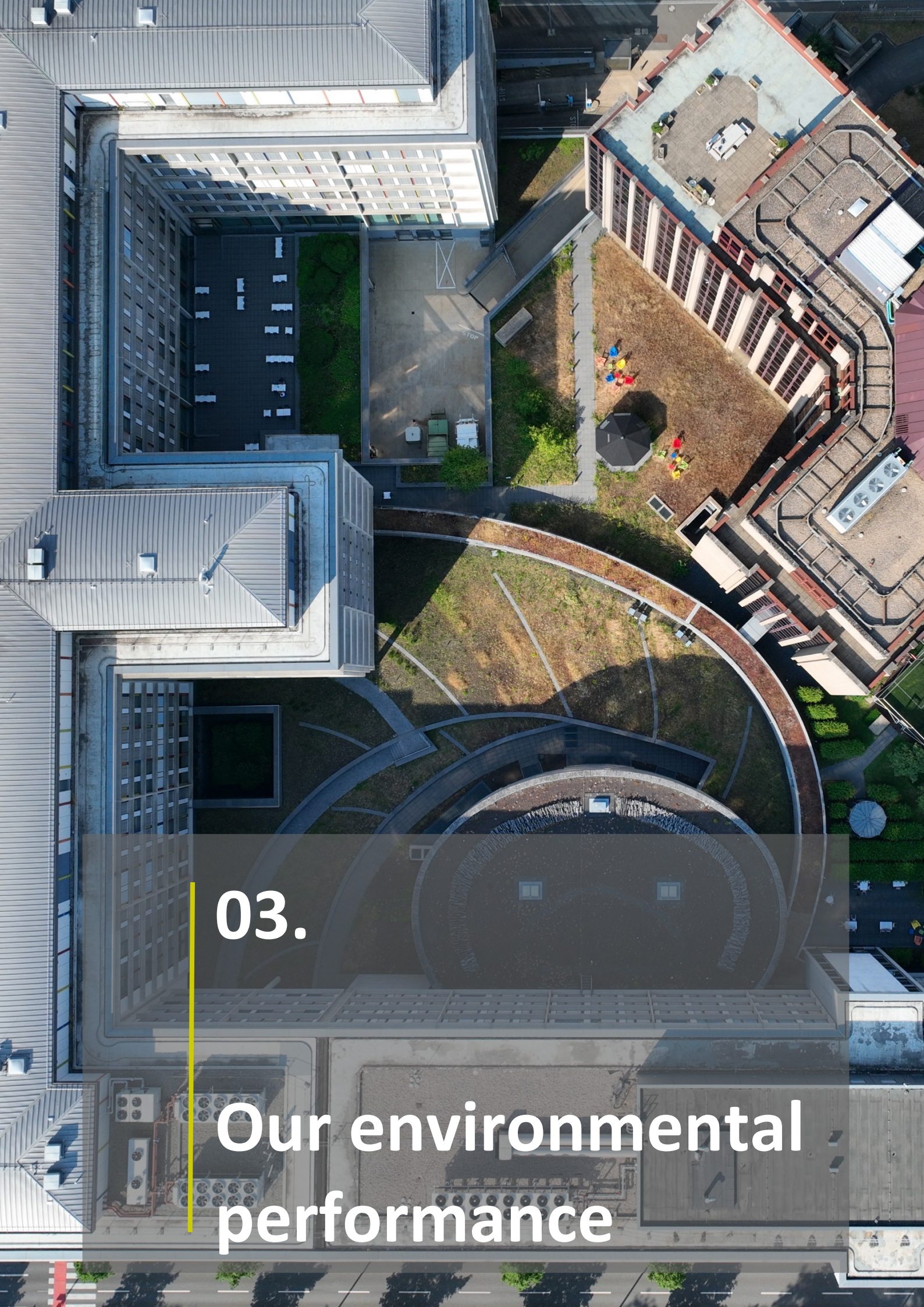
- on-the-spot audit missions should be prioritised as they are essential for our work;
- in the coming years, we will focus on reducing energy consumption and improving the energy efficiency of our buildings;
- we must continue to encourage change so that staff play an active role in reducing the ECA's environmental impact;
- with the end of the COVID-19 pandemic and the slight increase in the number of staff, the environmental impact of our activities will certainly be higher in the coming years than in 2022. Moreover, it is difficult to predict future developments in staff habits and particular needs of our institution. The EMAS team therefore took a cautious approach to setting the new targets for business travel and commuting, and postponed the catering targets. 2019 was taken as the baseline for most indicators.

Table 6 – New objectives for 2023-2025

Topic	General and specific objectives for the 2023-2025 period
Energy consumption	**Objective 1 – Reduce energy consumption** - Reduce **electricity** consumption (MWh) per full-time equivalent staff member (FTE) by 25 % over three years - Reduce **standardised heating** energy consumption (MWh) per FTE by 20 % over three years
Resource efficiency	**Objective 2 – Reduce resource consumption** - Reduce the **number of pages printed** per FTE per year by 10 % over three years.* - Reduce the number of items of IT equipment by 1 % over three years.*
Air emissions	**Objective 3 – Reduce CO_2 emissions** - Reduce **CO_2 emissions** from business travel per FTE by 5 % over three years. - Reduce CO_2 emissions from staff commuting by 20 % per FTE over three years. - Reduce CO_2 emissions from the ECA's car fleet by 10 % over three years.
Waste	**Objective 4 – Reducing waste generation** - Reduce annual waste generation by 5 % over three years.* - reduce annual generation of non-recycled waste by 5 % over three years.* - At least 75 % of waste produced annually must be sorted.
Green procurement	**Objective 5 – Incorporating more environmental considerations into public procurement** - The proportion of procurement procedures (above €60 000) classed as being green[8] must exceed 30 % by number. - The proportion of procurement procedures (above €60 000) classed as being green must exceed 30 % by value.
Water	**Objective 6 – Reduce water consumption** - Reduce annual **water** consumption (in m^3) per FTE by 30% over three years.
Biodiversity	**Objective 7 – Enhance biodiversity on the premises (new objective)** Increase green spaces by 1 % over three years.*
Compliance with regulatory provisions	**Objective 8 – Compliance with regulatory requirements** Ensure that the annual level of non-compliance is zero

N.B.: an asterisk (*) indicates a reference year of 2022. In all other cases, the reference year is 2019.

[8] A procurement procedure is considered green if the tender specifications include significant environmental clauses to reduce the contract's environmental impact.



03.

Our environmental performance

Our environmental performance

This section presents the ECA's environmental results for the 2020-2022 period.

The ECA evaluates its environmental performance using the environmental performance indicators in Annex IV to Regulation (EC) No 1221/2009, and the benchmarks of excellence set out in the sectoral reference document (SRD), Commission Decision (EU) No 2019/61.

34 The ECA has achieved most of its environmental objectives for the 2020-2022 period, as Table 7 shows. Four targets have not been achieved.

Table 7 – General and specific objectives for 2017-2022

Topic	General and specific objectives for the 2020-2022 period	Result
 **Energy consumption**	**Objective 1 – Reduce energy consumption**	
	Reduce **electricity** consumption (MWh) per full-time equivalent staff member (FTE) by 3 % over three years	-23 %
	Reduce **standardised heating** energy consumption (MWh) per FTE by 3 % over three years	-19 %
 **Resource efficiency**	**Objective 2 – Reduce resource consumption**	
	Reduce the **amount of paper** consumed per FTE per year by 20 % over three years	-36.5 %
	Reduce the **number of pages printed** per FTE per year by 30 % over three years	-56 %
	Each year, the **number of items of IT equipment** older than five years as a proportion of the total number of items of IT equipment must be at least 35 %	49 %
 **Air emissions**	**Objective 3 — Reducing CO_2 emissions**	
	Reduce **CO_2 emissions** from auditor travel per FTE by 20 % over three years	-59 %
	Reduce the number of business trips to Brussels by private car by 20 % over three years	-78 %
	The **number of teleworking days** and flexible working hours as a proportion of the total number of working days must be at least 15 % each year	42 %
	Reduce **CO_2 emissions from staff commuting** by 20 % per FTE over three years	-15 %

Topic	General and specific objectives for the 2020-2022 period	Result
	Reduce **CO_2 emissions from the ECA's car fleet** by 3 % over three years	+49 %
	Reduce **CO_2 emissions from power supply** by 15 % pre FTE over three years	61 %
Waste	**Objective 4 — Reducing waste generation**	
	Reduce **waste** generation by 3 % over three years	-51 %
	Reduce the generation of non-recycled waste by 5 % over three years.	-68 %
	At least 75 % of waste produced annually must be sorted.	85 %
	Reduce organic waste generation by 20 % over three years	-76 %
Green procurement	**Objective 5 — Incorporating more environmental considerations into public procurement**	
	The proportion of procurement procedures (above €60 000) classed as being less environmentally friendly must not exceed 60 % (by number and value) of all procurement procedures with an environmental impact.	0 % by number 0 % by value
	The proportion of procurement procedures (above €60 000) classed as being moderately environmentally friendly must increase to at least 30 % (both in number and value) of all procurement procedures with an environmental impact.	12.5 % by number 69.8 % by value
Water	**Objective 6 — Maintain water consumption at reference level** Maintain annual water consumption per FTE at its reference level	-46 %
Biodiversity	**Objective 7 – Enhance biodiversity on the premises (new objective)**	
Compliance with regulatory provisions	**Objective 8 – Compliance with regulatory requirements** Ensure that the annual level of non-compliance is zero	

NB: the reference year is 2019, except for the data on the K2 renovation project, which ended in March 2023.

Source: European Court of Auditors.

Assumptions and data

35 These results are presented in the form of ratios, as required by Regulation (EU) 2018/2026. The indicators therefore relate to the number of staff expressed in FTEs. The number of FTEs is the number of staff in proportion to their working time. On 31 December 2022, the number of FTEs was 968.83. It has increased by 5 % since 2014 and by 1 % compared to 2021.

36 The ECA uses external providers for a number of services (maintenance of buildings and installations, IT development, etc.). In order to ensure the reliability and reproducibility of the data from one year to the next, these providers have never been taken into account in the calculation of the indicators since the EMS was set up, except for the indirect effects of their presence on site (energy consumption, canteen meals, etc.).

37 We have compared all the 2019 results reported in this statement with those of 2019, which was the reference year for the second EMAS cycle (2022–2022) at the ECA. Data related to the renovation of the K2 building, which was completed in March 2023, is excluded from these results in order to maintain an equivalent and comparable scope of activity over time.

38 Most of the information needed to monitor the ECA's environmental performance is available from 2014 onwards. We therefore also compared, where possible, all the 2022 results reported in this declaration with those from 2014. However, due to the unavailability of some data during the first EMAS cycle (2014-2016) and the addition of indicators for the third EMAS cycle, a comparison between 2014 and 2022 is not always possible.

39 For each topic, more detailed information is provided on methodological assumptions in Annex I and on environmental performance in Annex II.

Energy

40 The energy required for the ECA's day-to-day activities comes from the consumption of natural resources, some of which are non-renewable.

41 The ECA is connected to the district heating network of the City of Luxembourg, powered by a cogeneration plant operating with an energy mix which included 58 % biomass in 2022. The heat supplied by the district network is used to heat buildings and produce domestic hot water.

42 Electricity consumption is mainly for powering the IT infrastructure, cooling the premises, ventilation, lighting, operating lifts, catering and printing.

43 The ECA also uses small quantities of fuel oil to power its generators.

44 Over the next three years, the ECA aims to focus its environmental efforts on saving energy and making its buildings more energy efficient. More ambitious targets and many actions are planned for the coming period.

General and specific objectives for the 2020-2022 period

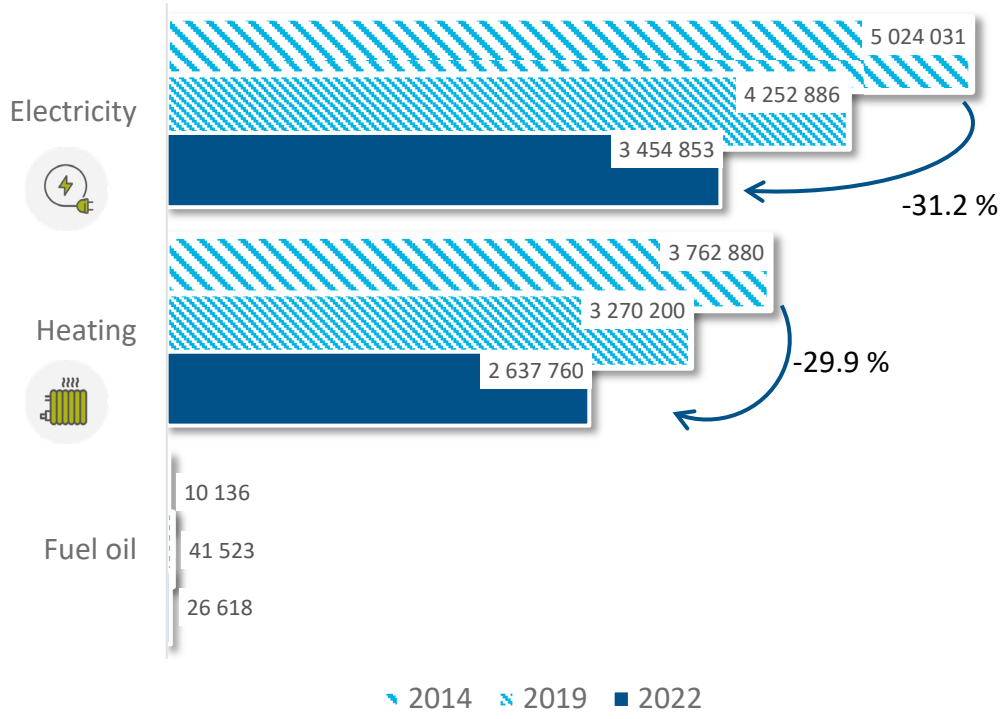
- Reduce electricity consumption per FTE by 3 % over three years (reference year: 2019).
- Reduce the consumption of standardised heating energy per FTE by 3 % over three years (reference year: 2019).

General and specific objectives for the 2023-2025 period

- Reduce electricity consumption per FTE by 25 % over three years (reference year: 2019).
- Reduce standardised heating energy consumption per FTE by 20 % over three years (reference year: 2019).

Results

Figure 6 — Energy consumption since 2014 (kWh)



Source: European Court of Auditors.

Table 8 — Summary of results for energy

Energy consumption		2022	Progression 2019-2022	Progression 2014-2022
Gross energy consumption by activity	Total electricity consumption (MWh)	3 455	-18.8 %	-31.2 %
	Total heating consumption (MWh)	2 638	-19.3 %	-29.9 %
	Corrected total heating consumption (Mwh)	2 981	-14.8 %	-18.3 %
	Fuel oil (MWh)	27	-35.9 %	162.6 %
Total gross energy consumption	Total energy consumption (MWh)	6 119	-19.1 %	-30.4 %
	Corrected total energy consumption (MWh)	6 462	-17.1 %	-25.6 %
	Renewable energy consumption (MWh)	4 985	-17.9 %	-42.5 %
	% of renewable energy	81 %	/.	/.
Relative energy consumption (per FTE)	Electricity (MWh per FTE)	3.57	-22.6 %	-34.5 %
	Heating (MWh/FTE)	2.72	-23.1 %	-33.2 %
	Heating, corrected value (MWh/FTE)	3.08	-18.9 %	-22.2 %
	Fuel oil (m^3/FTE)	0.03	-99.3 %	150.2 %

Source: European Court of Auditors.

Results analysis

45 Energy consumption in 2022 was the lowest since the K3 building entered into service and all staff were brought together on the same premises in 2013, as shown in Figure 6. The main causes of this reduction were the energy-saving measures introduced in June 2022, as well as hybrid working patterns and a mild winter.

46 During the first quarter of 2022, an external consultant carried out an energy audit of the ECA buildings with the aim of suggesting where savings could be made. A working group composed of the buildings team, the health and safety officer ("designated worker"[9]), a representative of the Medical Service and members of the Staff Committee used the audit to draw up some proposals for reducing energy consumption in response to the energy crisis.

47 In 2022, following the reopening of a number of floors in K2 after renovation work, the share of total energy use for each of the three buildings was once again in line with the number of staff in each building.

48 The key electricity consumption trends in 2022 are as follows:

- Electricity consumption has decreased every year since 2014. The annual figures for 2022 were the lowest since the opening of K3, despite the fact that more staff were on site than in 2021 and that the particularly warm summer of 2022 meant greater use of the air-conditioning system than in the previous year.
- The fall in the number of COVID-19 cases in June made it possible to reduce the number of hours of ventilation by one third, which had a positive impact on the electricity figures for the rest of the year.
- Despite the extremely hot summer, the increase in the electricity figures was smaller than during the same period in previous years. In July and August, the measures taken in response to the energy crisis (IT room temperature increased from 19 to 22 °C, shorter ventilation periods) meant that less electricity was used than in the summer of 2021.
- The night-time figures were almost 10 % lower than in 2021. In November they were the lowest ever recorded since the opening of K3, at 20 % below the five-year average for night-time consumption during November. There were various reasons for this:
  - the installation of programmable low-energy lighting in the car parks;
  - a reduction in the hours of use of the ventilation system from July 2022;
  - the disconnection of a cold room in the kitchens;
  - the mild end to the year.

[9] Under Luxembourg law, the "designated worker" assists the employer in establishing protective and preventive measures within the organisation. He/she is a specialist in occupational safety and health and should lead by example in preventing occupational risks.

49 Standardised heating consumption decreased by 6 % in 1 year. There were three reasons for this fall: the refurbishment of K2, the exceptionally mild winter and the introduction of energy-saving measures.

50 K2 is the building that has seen the biggest reduction in heating consumption since 2014, due to the renovation of its technical facilities.

Actions taken

51 The following actions continued to be applied in 2022 and may either have been specific to one building in particular, or concern all ECA buildings:

- following up the findings of the building energy performance studies and checks in order to constantly improve the energy performance of buildings;
- optimising and frequent reviewing lighting settings;
- regular heating checks to avoid overconsumption;
- raising awareness among colleagues about the overnight electrical consumption of computers when teleworking; asking them to switch off their laptops at home in the evening.

52 The following one-off actions were taken in 2022:

- work to replace lighting equipment in the K1 and K2 car parks continued until March 2022;
- lighting equipment was replaced in the K1 toilets and the K2 conference room;
- the renovation of the K2 building continued throughout 2022, with the replacement of ageing lighting equipment in the corridors by more efficient appliances with LED bulbs;
- the replacement of the K1 lifts and ventilation units started in late 2022 and should eventually lead to a reduction in the energy consumption of the building.
- the temperature of ventilation units was reduced by 1°C in winter and increased by 1°C in summer;
- the temperature of the computer room was increased to 22°C;
- a meter was installed on the cooling installations in the K1 building;

- the heating temperature has been reduced at weekends and some days when there are fewer people on the premises.

Future measures

53 Further measures are envisaged to achieve the objective on reducing energy consumption:

- continue to reduce the number of hours ventilation equipment operates and adapt ventilation as closely as possible to actual use of the premises;
- maintain the temperature with air conditioning at 26 °C, compared to 24 °C in previous years;
- continue to replace obsolete lighting and light bulbs with LED appliances and light bulbs, depending on budget availability;
- analyse the possibility of adding motion detectors in certain common areas (corridors, staircases, etc.) and carry out the work according to budget availability;
- transfer the data centre from the K3 building to an external data centre;
- renovate the roof of the K2 building, and install a green roof and solar panels;
- stop supplying bathrooms with water heated locally using electric hot water storage tanks;
- make ventilation systems more efficient by replacing obsolete equipment in K1 and upgrading air-handling units in K3;
- install LED lamps in all K2 offices on a voluntary basis;
- make lifts more energy efficient by upgrading the K2 lift control system and replacing some obsolete lifts in K1;
- close some unoccupied areas in the buildings when few people are on the premises, especially in summer.

Renewable energy

54 The ECA is a role model for the use of energy from renewable primary sources. In 2022, 81 % of the primary energy to meet the ECA's needs came from renewables.

55 For almost a decade, the ECA has used 100 % certified renewable-source electricity supplied under an interinstitutional contract.

56 The electricity used in the ECA's external data centre (which is beyond the scope of EMAS) is also from a certified renewable source.

57 Our heating system is connected to the Kirchberg district heating network, which obtains 58 % of its heat from biomass (wood pellets). The heating plant is currently undergoing work, due to be completed by the end of 2023, to increase its biomass utilisation capacity to 85 % of total production capacity. This will increase the use of this renewable energy source even further.

Resource efficiency

58 In the past, resource efficiency management has centred on paper use and consumption. Paper is mainly used for two purposes.

- It is used in photocopiers and printers for office activities (mainly A4 paper, 100 % recycled or FSC® origin and 75 g/m²). Data on this is obtained from printer usage records.

- Paper is also used to produce communication materials to promote ECA activities and products. Several types of paper are used only by the ECA Printshop and external publication services. Data about this is based on the quantities of printouts ordered.

59 The 2020-2022 environmental programme includes an additional indicator on the lifespan of IT equipment, with the aim of increasing the lifetime and use of such equipment and raising awareness of the problem of the supply of rare-earth elements.

General and specific objectives for the 2020-2022 period

- Reduce the **amount of paper** consumed per FTE each year by 20 % over three years (reference year: 2019).

- Reduce the **number of pages** printed per FTE each year by 30 % over three years (reference year: 2019).

- Each year, the **number of items of IT equipment** older than five years as a proportion of the total number of items of IT equipment must be at least 35 %.

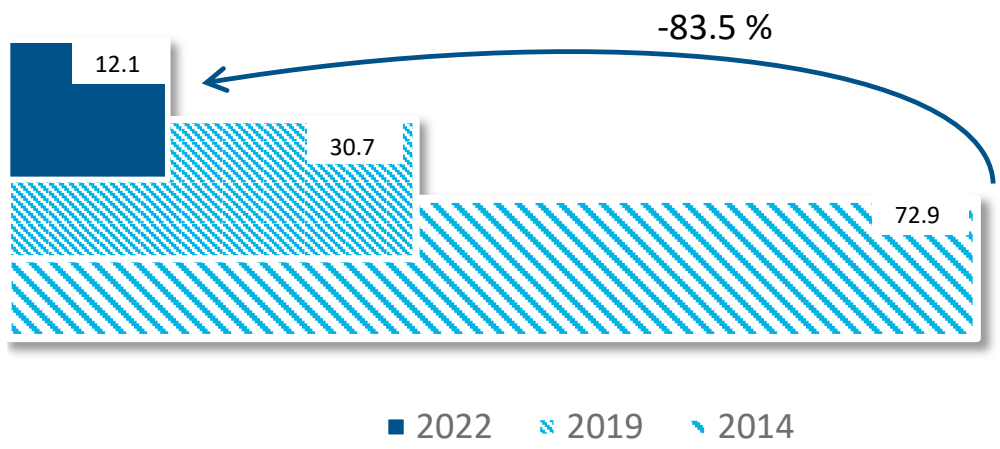
General and specific objectives for the 2023-2025 period

- Reduce the number of pages printed per FTE per year by 10 % over three years (reference year: 2022).

- Reduce the number of items of IT equipment by 1 % over three years (reference year: 2022).

Results

Figure 7 – Number of pages printed per FTE per day



Source: European Court of Auditors.

Table 9 — Summary of results for paper

Paper consumption		2022	Progression 2019-2022	Progression 2014-2022
Gross annual consumption	Pages printed/photocopied (office work)	2 636 087	-57.4 %	-75.3 %
	Publications	201 924	-71.6 %	-96.5 %
	Total pages (office work + publications)	2 838 011	-58.8 %	-82.7 %
	Volume of paper used for printing/photocopying (office activities) (kg)	10344	-36.5 %	n/a
Relative annual consumption	Pages printed/photocopied (office work per FTE)	2 721	-59.4 %	-76.5 %
	Total pages (office work + publications per FTE)	2 929	-60.8 %	-83.5 %
	Total pages (office work + publications per FTE per day)	12.05	-60.8 %	-83.5 %
	Quantity of paper used for printing/copying (kg/FTE)	4.40	-74.9 %	n/a

Source: European Court of Auditors.

60 The indicator on IT equipment lifetime has been calculated as follows.

- Number of items of equipment: 11 736;
- Number of items of equipment in service for more than 5 years: 5 931;
- Proportion of IT equipment over 5 years old: 50% in 2022.

Results analysis

61 The ECA's objectives for the three-year period have been achieved and greatly exceeded, mainly due to the extensive use of teleworking since the beginning of the pandemic.

62 Annual paper consumption increased by 46.5 % between 2021 and 2022. However, with an average of 12.05 pages per working day and per FTE for office and publication activities, the ECA consumes 20 % fewer pages than the benchmark of excellence set out in the sectoral reference document for the public administration sector, i.e. 15 pages per day per FTE.

63 Thanks to the quality of laptops and the less frequent replacement policy in place, the 35 % target for IT equipment over 5 years of age has been exceeded.

Actions taken

64 In 2022, we continued the measures already in place to reduce paper consumption, which still apply in 2023:

- introducing a teleworking system as from 1 April 2022, allowing up to 10 days of teleworking per month;
- using multifunctional printers with "follow me" secure printing technology, configured for double-sided printing;
- adopting a policy on electronic signature of documents, allowing greater use of electronic documents;
- extending the electronic-only system for invoices and order form signatures;
- automatically shutting down computers on the ECA's premises at midnight;
- significantly increasing the number of e-learning and paperless training courses;
- using 75 g/m² paper that is 100 % recycled or from a sustainable source;

- holding a conference on rare metals and the use of mineral resources;
- increasing the number of online resources offered by the library.

65 Staff awareness campaigns to reduce paper consumption resumed in 2022. These will need to be continued to maintain the good habits staff have developed and stop paper consumption from increasing again.

Figure 8 – Example of intranet communication campaign

Source: European Court of Auditors.

Future measures

66 The following measures are either under consideration or will be implemented in the future:

- continue efforts to reduce paper consumption and continue to purchase paper with the lowest possible environmental impact;
- reduce the amount of equipment per staff member by analysing changes in habits and optimising equipment use;
- continue to encourage the reuse of furniture and reduce the amount of furniture per staff member;
- raise staff awareness regarding the purchase of green office supplies and continue to promote the exchange and reuse of office supplies.

Greenhouse gas emissions

67 Since 2014, the ECA has carried out an annual assessment of its greenhouse gas emissions to monitor efforts to reduce its carbon footprint.

68 Every year, we post detailed reports on our carbon footprint on our environmental management *webpage*.

69 For 2022, the ECA's carbon footprint was calculated using the Bilan Carbone© method, which ensures continuity in comparing the results with those of previous years. The scope of the calculation of emissions from the ECA's activities was the same as in 2021.

70 A mobility survey was carried out between 16 and 23 March 2022 among all ECA staff. The aim was to assess emissions related to staff commuting (see "Mobility" chapter).

71 Telework-related emissions have also been taken into account using a simplified method. This method takes into account the electrical consumption of IT equipment used by staff and the heating resources consumed by working from home.

72 For 2022, we were able to estimate the number of days worked on the ECA's premises by taking the number of working days entered by each staff member from 1 February 2022 onwards and extrapolating the data for January on a pro rata basis. The proportion of total working days throughout the teleworked or taken as flexitime compensatory leave decreased significantly in 2022, to 32 %. However, this was well above the initial target of 15 %.

73 Since 2020, IT-related emissions have been assessed separately in the "digital" category.

74 In 2022 some IT service providers worked on the ECA's premises, as they did before the pandemic. Unlike in 2021, emissions from these services were not accounted for within IT services, in order to avoid double counting with items related to the presence of staff on the premises (such as energy, meals, waste and water).

75 Renovation work on the K2 building continued, with floors 2, 3 and 4 being completed. These floors were taken into account in the calculation of the carbon balance for 2022 in proportion to the area completed.

General and specific objectives for the 2020-2022 period

- reduce CO_2 emissions resulting from auditor travel per FTE by 20 % over three years (reference year: 2019);

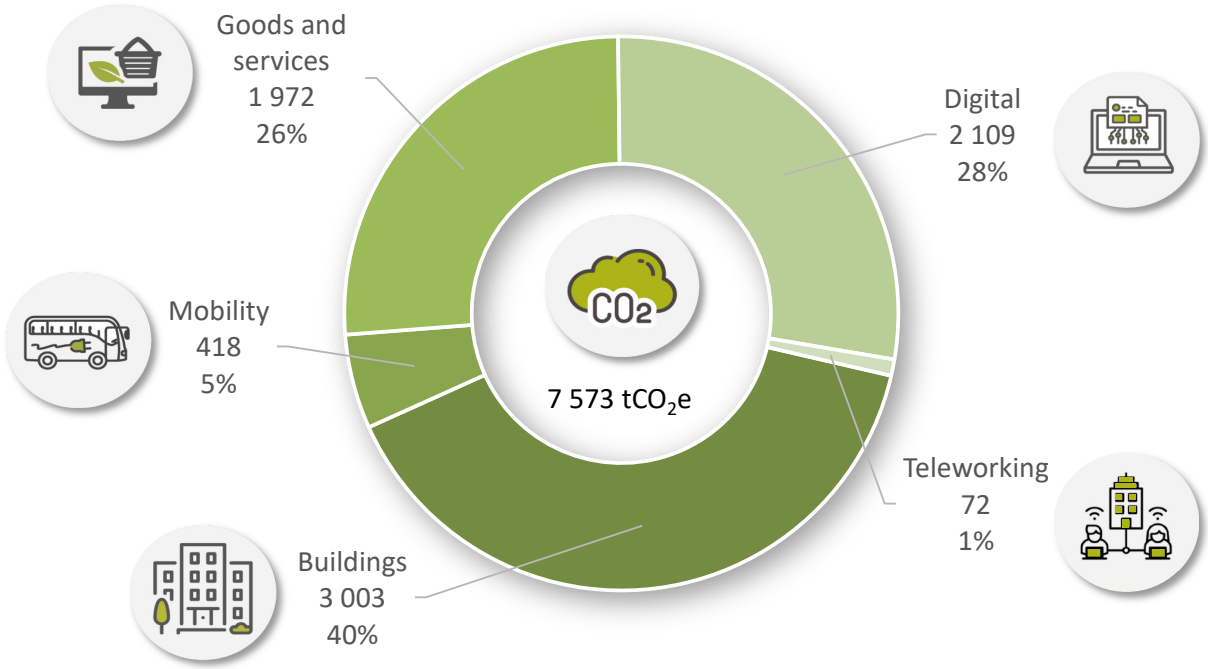
- reduce the number of missions to Brussels using private cars by 20 % over three years (reference year: 2019);
- the number of teleworking days and flexible working hours in relation to the total number of working days must be at least 15 % each year;
- reduce CO_2 emissions from commuting by 20 % per FTE over three years (reference year: 2019);
- reduce CO_2 emissions from the car fleet by 3% over three years (reference year: 2019);
- Reduce CO_2 emissions from fuel per FTE by 15 % over three years (reference year: 2019).

General and specific objectives for the 2023-2025 period

- Reduce CO_2 emissions resulting from business travel per FTE by 5 % over three years (reference year: 2019);
- Reduce CO_2 emissions from commuting by 20 % per FTE over three years (reference year: 2019);
- Reduce CO_2 emissions from the car fleet by 10% over three years (reference year: 2019).

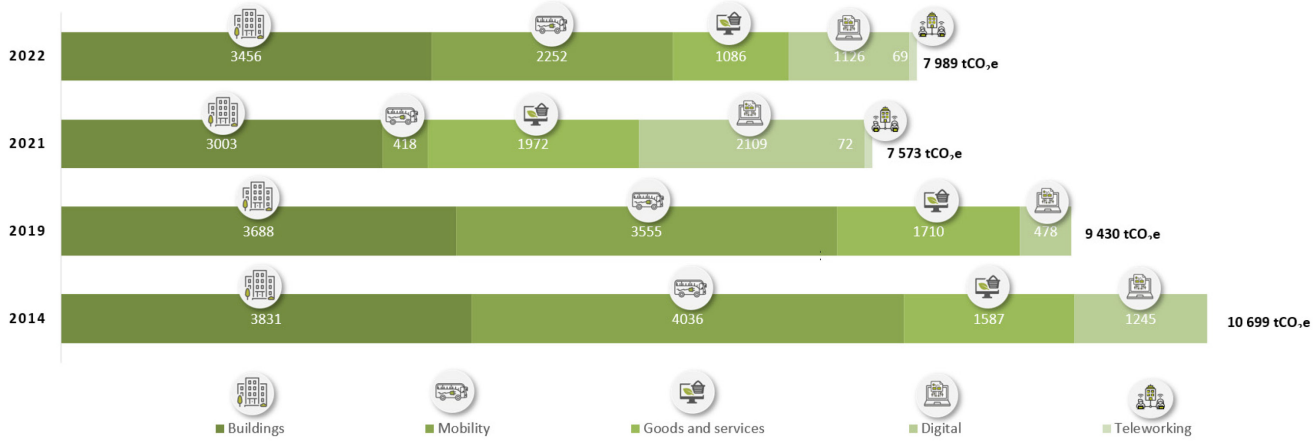
Results

Figure 9 – Emissions in 2022



Source: 21Solutions.

Figure 10 – Evolution of greenhouse gas emissions since 2014 (tCO_2e)



Source: 21Solutions.

Table 10 – Summary of results for emissions

Emissions – Carbon footprint method		2022	Progression 2019-2022	Progression 2014-2022
Gross annual emissions	Total emissions (tCO_2e)	7989.0	-15.3 %	-25.3 %
	Total emissions from food/power (tCO_2e per FTE)	119	-57.8 %	-43.9 %
Relative annual emissions	Total emissions (tCO_2e per FTE)	8.25	-19.3 %	-28.9 %
	Total emissions from food/power (tCO_2e per FTE)	0.12	-59.8 %	-46.5 %

Source: *21Solutions.*

Results analysis

76 As Figure 9 above shows, the following three sources accounted for 85 % of the ECA's carbon footprint in 2022:

- buildings (43 %), with the following emission categories: energy and non-energy in-house, direct waste and sewage disposal, buildings and car parks, building maintenance, capital goods and vehicles;
- mobility (28 %), with the following emission categories: staff commuting, business travel, visitor travel, hotel stays and meals, and transport of goods;
- goods and services (14 %).

77 Emissions were reduced by 15 % between 2019 and 2022, and by 25 % between 2014 and 2022, as shown in Figure 10. This is all the more significant given that, over the same period, the number of FTEs increased by 5 %.

78 Emissions from buildings were reduced by 15 % between 2014 and 2022, due to reduced energy consumption and a change in our heating energy mix. The ECA is connected to the Kirchberg district heating plant, which initially operated on gas but switched to biomass in 2015. The 2022 energy-saving plan was also successful and contributed to reducing emissions. In addition, 2022 was not very cold and the heating network used more pellets – which have a lower footprint than gas – than in 2021.

79 **Mobility emissions** have decreased significantly since 2014 (-45 %). This is due partly to the effects of the pandemic, but also to efforts to limit the number of journeys through widespread use of video conferencing tools and the shuttle service for employees, which has been in place for many years. The increase between 2021 and 2022 is due to the resumption of business and visitor travel after the pandemic.

80 **Goods and services** are now the third largest source of emissions. This item takes into account the impact of all goods and services purchased by the ECA, except for IT goods and services and building maintenance. Emissions from this source have remained relatively stable in recent years, but have decreased slightly compared to 2014 (-15 %). In 2022, these emissions were also affected by inflation in cases where their calculation was based on the extrapolation of costs.

81 Only two quantified targets (on reducing emissions from business travel and meals) were largely achieved over the three-year period (2020-2022).

82 The target for commuting was not achieved. Emissions from this item decreased by 15 % (rather than the expected 20 %) between 2020 and 2022, with a decrease of 36 % since 2014.

83 The target for the ECA's vehicles was not met. In fact, the impact of the ECA's fleet of vehicles increased by almost 50 % over the 2020-2022 period. This is because hybrid vehicles, which account for 45 % of the ECA's fleet, have a greater impact because of their weight.

Actions taken

84 In 2022, the ECA took the following emissions-reduction measures:

- introducing a new teleworking policy as from 1 April 2022. Staff can now telework for 10 days each month;
- continuing to use video conferencing tools;
- continuing measures to support commuting with a "soft" mode of transport, such as cycling (covering the costs of subscriptions to the city of Luxembourg's shared bike system) or public transport (partially reimbursing season tickets for cross-border commuters);
- encouraging dietary change by offering a greater range of options in the canteen, including two vegan menus per week;
- highlighting vegetarian and vegan menus on the intranet.

Future measures

85 The measures that could be taken in this context are as follows:

- increasing the number of vegetarian and vegan meals and promoting these among staff;
- continuing to raise staff awareness of the impact of increasing greenhouse gas emissions by holding “Climate Fresque” or “Cyclobus” workshops (e.g. during Mobility Week) to encourage cycling to work;
- raising staff awareness of the requirements of the European Green Deal and presenting action plans adopted in the other EU institutions to reduce greenhouse gas emissions.

Carbon contribution

86 Carbon offsetting is a financial mechanism that supports environmental projects to promote the reduction (e.g. a wind project) or sequestration (e.g. reforestation project) of greenhouse gases in the atmosphere. It is an approach that organisations take after having sought to minimise CO2 emissions from their activities. The term “contribution” is preferable to “offsetting” because it is not possible to offset greenhouse gas emissions. The ECA has so far opted to focus on reducing its emissions rather than offsetting them through this financial mechanism.

87 Currently, the only carbon contribution made by the Court of Auditors is the purchase of certified green electricity. This contribution is certified by our provider, and is a transparent mechanism. Emissions from electricity consumption calculated on the basis of green certificates are 93 % lower than those calculated on the basis of the Bilan Carbon Method©. Had the green electricity certificate been taken into account, the ECA’s total emissions for 2022 would have been 6 886 tCO2e – which would represent a 36 % reduction compared to 2014.

Mobility

88 Mobility is an important part of the activity of the European Court of Auditors, which carries out its audits and meets auditees on the spot. Between 2014 and 2019, mobility was the main factor influencing the ECA's carbon footprint.

89 Mobility at the Court is divided into three sectors:

- professional travel by auditors;
- visitor travel;
- daily staff commuting to and from the ECA's premises.

General and specific objectives for the 2020-2022 period

- Reduce CO_2 emissions resulting from business travel per FTE by 20 % over three years (reference year: 2019).
- Reduce the number of missions to Brussels using private cars by 20 % over three years (reference year: 2019).
- the number of teleworking days and flexible working hours in relation to the total number of working days must be at least 15 % each year;
- reduce CO_2 emissions from commuting by 20 % per FTE over three years (reference year: 2019).

Objectives for the 2023-2025 period

- Reduce CO_2 emissions resulting from business travel per FTE by 5 % over three years (reference year: 2019).
- Reduce CO_2 emissions from commuting by 20 % per FTE over three years (reference year: 2019).

90 A mobility survey was carried out between 16 and 23 March 2022 among all ECA staff. Its aim was to understand:

- whether and how commuting patterns have changed in recent years;
- how this has influenced mobility choices.

91 The main findings of this survey are as follows.

- Over the years, the modes of transport used to travel to the ECA have become more diversified, and new modes of transport such as cars, bicycles and electric scooters are now part of many colleagues' daily lives.
- While the use of public transport has increased since 2017 among respondents, reaching 24 % of kilometres travelled, individual motorised vehicles remain the preferred means of travel to the workplace. Motorised vehicles account for 70 % of kilometres travelled for commuting, while 53 % of respondents live less than 10 km away from the ECA.
- There has been a sharp decrease in carpooling. The drop in carpooling is linked to the new system of hybrid working in place since the pandemic: to be able to carpool, staff currently need to find colleagues who do the same commute and work the same hours.

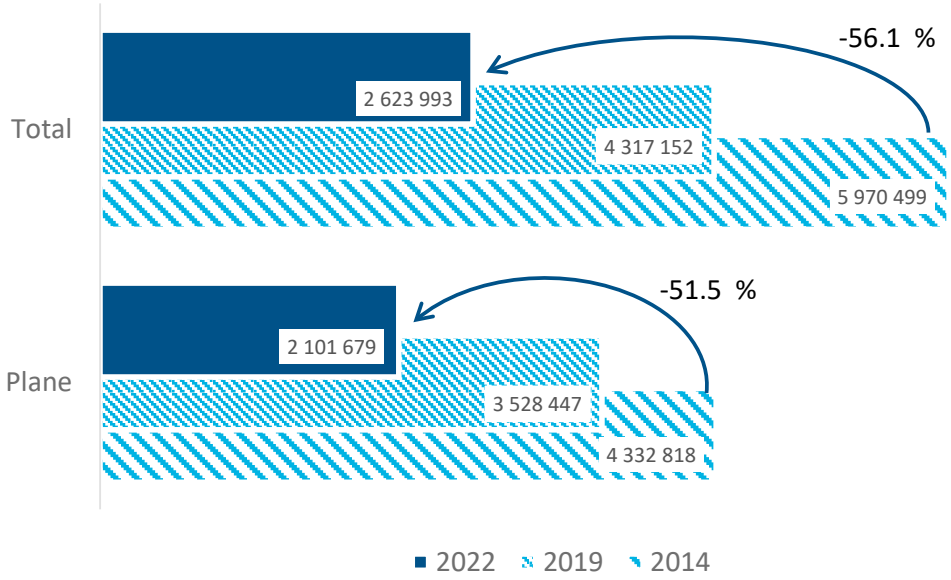
Results

Table 11 – Mobility related greenhouse gas emissions

Emissions – Carbon footprint method		2022	Progression 2019-2022	Progression 2014-2022
Gross annual emissions	Total emissions (tCO_2e)	7 989.0	-15.3 %	-25.3 %
	Total emissions from auditor travel (tCO_2e per FTE)	445.0	-57.5 %	-69.8 %
	Total emissions from auditor commuting (tCO_2e per FTE)	1 055	-11.2 %	-35.7 %
	Total emissions from the ECA car fleet (tCO_2e)	176.0	-14.7 %	-36.6 %
Relative annual emissions	Total emissions from auditor travel (tCO_2e per FTE)	0.46	-59.5 %	-71.3 %
	Total emissions from commuting (tCO_2e per FTE)	1.09	-15.4 %	-38.7 %
	Total emissions from the ECA's car fleet (tCO_2e per car)	5.5	-12.1 %	-36.6 %

Source: 21Solutions.

Figure 11 – kilometres travelled since 2014 (km)



Source: European Court of Auditors.

Table 12 — Overview of distances travelled by activity

Business travel		2022	Progression 2019-2022	Progression 2014-2022
Gross annual total	Total distance covered for business travel (in km):	2623993	-39.2 %	-56.1 %
	air travel (km)	2101679	-40.4 %	-51.5 %
	travel by private car (km)	144210	-34.2 %	-62.6 %
Relative annual total	Total distance covered for business travel (in km per FTE)	2708	-42.1 %	-58.1 %
Missions to Brussels	Number of missions to Brussels by private car	97	-91.7 %	N/A

Source: European Court of Auditors.

92 A detailed analysis of the 153 flights taken in 2022 shows that flights of less than 500 km represent:

- 8 % of the total number of flights;
- 0.2 % of the number of kilometres flown.

Results analysis

93 The target for commuting has not been reached, such journeys having decreased by only 15 % over the three-year period (2020-2022). Commuting emissions are almost double the emissions from business travel. This is mainly due to the decrease in carpooling since the introduction of teleworking and the decrease in the number of teleworking days between 2021 and 2022.

94 The target for business travel to be achieved over a three-year period (2020-2022) was largely met. Emissions from this item fell sharply as compared to 2019 or 2014, but obviously increased between 2021 and 2022. An increase in business travel is expected in 2023-2025, particularly due to the end of the pandemic and the increase in the number of ECA staff.

95 The number of short flights (those of less than 500 km) remains modest as a proportion of all flights. This shows the effectiveness of the measures taken to encourage staff to avoid intra-EU air connections, when flying long haul, by finding ways to travel to their airport of departure other than flying.

96 The decrease in the number o kilometres travelled by car is explained not only by the consequences of the pandemic, but also by:

- the increase in the use of video conferencing tools since 2020, by both the ECA and its auditees, which has made it possible to limit the number of journeys, in particular to Brussels;
- the installation of the recording studio, which makes it possible to hold press conferences remotely;
- the resumption of the shuttle system, for staff travelling to the same destination together.

97 The use of trains from Luxembourg remains limited due to their unreliability and the decline in the quality of railways in the region. The availability of efficient high-speed connections has decreased since the pandemic, journeys to France are slowed down by frequent engineering works, and an accident in August 2022 cut off connections to the north of Luxembourg and, indeed, to Belgium and the Netherlands.

Actions taken

98 In 2022, the ECA took the following emissions-reduction measures:

- boosting the ECA's shuttle service with an additional vehicle for nearby missions (e.g. to Brussels, Strasbourg or Frankfurt), with the possibility of pick-up/drop-off at the Belgian border for missions to Brussels;
- making teleworking permanent, allowing staff to telework for 10 days per month;
- encouraging video meetings using a variety of IT tools;
- installing a recording studio used in particular for press conferences, which no longer take place in Brussels as they used to;
- giving staff a free season ticket for the City of Luxembourg bike service ("vel'OH") with free journeys of up to 30 minutes;
- public transport is free of charge in Luxembourg, but staff commuting across the borders have been eligible for partial reimbursement of public transport season tickets (MPass) since 1 January 2022;
- promoting carpooling and in particular the Klaxit application chosen by the Luxembourg government, which partially covers the costs of journeys;
- setting up two staff-led Teams channels to discuss cycling and electric vehicles;
- raising staff awareness of scarce materials and the consequences of mining, raising awareness of carpooling, promoting the use of public transport and improving Luxembourg networks and active modes of transport;
- providing additional bike parking spaces in the K3 building, including for cargo bikes, and charging points for e-bikes;
- installing ten chargers for hybrid and electric vehicles in the car park of the K3 building;
- testing of electric ECA vehicles and shuttles and negotiating with the other institutions to allow the charging of vehicles during missions to their premises;
- participation in an interinstitutional working group on improving the environmental impact of missions;
- promoting active modes of transport to staff during the European Mobility Week.

Future measures

99 The following measures are either under consideration or will be implemented in the future:

- reflections on the introduction of a carbon budget in the calculation of the cost of missions so that the choice of means of transport is based not only on the cost but also on the environmental impact of the means of transport chosen;
- improving the collection of visitor data in order to determine more precisely the journeys made by visitors to the ECA;
- continuing to reduce emissions from the ECA's vehicle fleet by leasing 100 % electric vehicles and reducing the number of vehicles in the fleet;
- improving cycling infrastructure in the ECA's buildings;
- drawing up a mobility plan for the ECA in order to anticipate the work planned in the vicinity in the coming years.

Waste

100 The waste generated by the ECA results from catering, general office work, the upkeep and maintenance of its premises and technical facilities.

101 Waste is sorted by users (staff, logistics team, service desk, etc.) and is collected to be centralised at the delivery bay. Catering and maintenance providers sort and collect the waste arising from their activities. The waste is then transported to the various sites for recycling, disposal or recovery.

102 The ECA's waste is sorted into different categories (see Annex II). The "SuperDrecksKeëscht®" quality label awarded to our institution's waste management system was renewed in June 2023. This system operates with waste sorting bins installed in the ECA's corridors, as offices are not equipped with individual bins.

103 Continuous action is taken to limit waste at all levels:

- the mission and teleworking monitoring system determines the amount of meals to be provided to clear food waste;
- a donation programme promotes the reuse and recycling of decommissioned IT equipment that is still in working order;
- a composter is available to the ECA's gardeners and the company responsible for managing our green spaces;
- a scale is used to automatically weigh waste and enter the data in the waste register;
- the catering services provider has detailed statistics on food leftovers.

General and specific objectives for the 2020-2022 period

- Reduce waste generation per FTE by 3 % over three years (reference year: 2019).
- Reduce the generation of non-recycled waste by 5 % over three years (reference year: 2019).
- At least 75 % of waste produced annually must be sorted.
- Reduce organic waste production per FTE by 20 % over three years (reference year: 2019)

General and specific objectives for the 2023-2025 period

- Reduce waste generation per FTE by 5 % over three years (reference year: 2019).
- Reduce the generation of non-recycled waste by 5 % over three years.
- At least 75 % of waste produced each year must be sorted.

Results

Table 13 — Summary of results for waste

Waste		2022	Progression 2019-2022	Progression 2014-2022
Gross annual amount	Total waste generation (t), of which:	105 726	-45.4 %	-30.4 %
	food waste (kg)	12 454	-51.3 %	-36.0 %
	hazardous waste (kg)	43 811	-36.7 %	124.0 %
	non-recycled waste (kg)	34 662	-73.7 %	N/A
	Rate of non-recycled waste	33%	N/A	N/A
	Proportion of sorted waste	85%	N/A	N/A
Relative annual amount	Total waste generated (kg)/FTE	109.13	-48.0 %	-33.7 %
	Total food waste generated (kg) per FTE	12.85	-53.6 %	-39.1 %
	Total hazardous waste generated (kg) per FTE	45.22	-39.6 %	113.4 %
	Total non-recycled waste generated (kg)/FTE	35.78	-75.0 %	N/A

Source: European Court of Auditors.

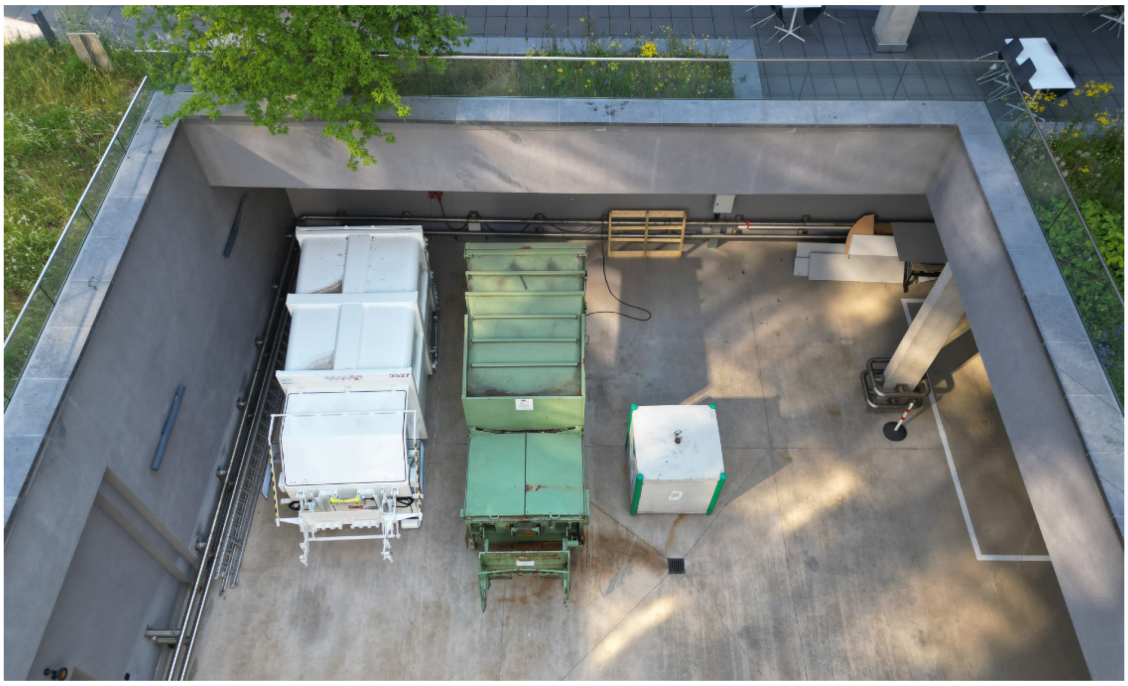
Results analysis

104 All objectives for the 2020-2022 period were met. Furthermore, between 2020 and 2022, the proportion of sorted waste increased while the proportion of non-recycled waste decreased.

105 Waste generation is strongly correlated with the on-the-spot presence of staff. The increase between 2021 and 2022 occurred as predicted, with a 42 % increase in the amount of waste generated for the ECA's activities excluding the K2 construction works. However, in comparison to 2019 and 2014, the decrease remains significant.

106 In 2022, the ECA set up a scale and a systematic waste-weighing system with automatic entry into a computer application. This system, which became operational on 1 January 2023, will allow the ECA to gather more reliable data and information about timings. Management of the waste area has been completely reviewed.

Figure 12 – Delivery bay waste area



Source: European Court of Auditors

107 The 2014 results do not include the waste heading “sludge” from the oil/water separators due to a lack of data, although these were systematically collected in subsequent years. Moreover, the measurement scope is not entirely comparable, as the 2014 Waste Register did not include service providers’ waste. The 2014 results are therefore not comparable with the results of subsequent years.

Actions taken

108 The implementation of the specific action plan devised by an external expert following the audit in 2020 was completed in 2022 with measures such as introducing a weighing scale, the outsourcing of waste management and improved security for compactors and sorting areas.

109 In 2022, the ECA took the following steps to improve its waste management system:

- improving data quality through increased waste-weighing and including suppliers’ waste in ECA statistics;

- sending ink cartridges (excluding toner) to a repackaging company for reuse;
- regular checks on the quality of waste sorting within ECA buildings;
- distributing a reusable bottle to each member of staff to raise awareness of drinking tap water rather than water from plastic water bottles;
- staff awareness campaigns and regular reminders of instructions for sorting waste.

Figure 13 – Composter purchased end 2022

Source: European Court of Auditors

Future measures

110 The established targets can be achieved by implementing the following actions:

- promoting the use of greener office supplies and selective sorting of used small office supplies;
- improving the catering contract to eliminate non-recyclable waste in the cafeteria and switch from selling plastic bottles to selling drinks in returnable bottles.

Green procurement

111 The type, quantity and nature of goods and services purchased affect the ECA's environmental footprint. This is why we pay particular attention to environmental clauses in our public procurement procedures.

112 Public procurement is sustainable when a public authority seeks to purchase goods and services with the lowest possible negative environmental and social impact over their whole lifespan.

General and specific objectives for the 2020-2022 period

- The proportion of procurement procedures (above €60 000) classed as being less environmentally friendly must not exceed 60 % (by both number and value) of all procurement procedures with an environmental impact.
- The proportion of procurement procedures (above €60 000) classed as being moderately environmentally friendly must increase to at least 30 % (by both number and value) of all procurement procedures with an environmental impact[10].

General and specific objectives for the 2023-2025 period

- The proportion of procurement procedures (above €60 000) classed as being green[11] must exceed 30 %.
- The proportion of procurement procedures (above €60 000) classed as being green must exceed 30 % by value.

[10] For more details on methodological assumptions, see Annex 1.

[11] A procurement procedure is considered green if the tender specifications include significant environmental clauses to reduce the contract's environmental impact.

Results

Table 14 — Results for 2022

Public procurement		2022
Number	Very environmentally friendly	1
	Moderately environmentally friendly	0
	Less environmentally friendly	0
	Not environmentally friendly	7
	percentage of *not* and *less environmentally friendly* contracts	87.5 %
	percentage of *moderately* and *very environmentally friendly* contracts	12.5 %
Value	Very environmentally friendly	€ 3 376 101.58
	Moderately environmentally friendly	€ 0.00
	Less environmentally friendly	€ 0.00
	Not environmentally friendly	€ 1 462 148.00
	percentage of *not* and *less environmentally friendly* contracts	30 %
	percentage of *moderately* and *very environmentally friendly* contracts	70 %

Source: European Court of Auditors.

Results analysis

113 The target for contracts considered to be less green has not been achieved either by number or by value. The target for contracts considered to be at least moderately green has been achieved by number but has not been achieved by value.

114 With regard to purchases, the results are still strongly affected by the COVID-19 pandemic. Due to the unpredictability of new habits, some contracts had to be delayed in order to make correct estimates. In addition, several contracts with no environmental impact (e.g. expert contracts) were signed during this period.

115 The target for the 2020-2022 period was considered to be too complex and insignificant in relation to the number of contracts awarded each year by the Court. Simplification by regrouping all categories has been proposed for the 2023-2025 period.

Actions taken

116 To ensure that targets are met, the ECA promotes green public procurement by:

- analysing procurement procedures and their purpose in depth to ensure that they include environmental criteria;
- holding campaigns and seminars to raise staff awareness of green public procurement;
- providing green public procurement training for all departments involved in procurement procedures;
- placing high importance on environmental requirements in technical specifications and award criteria;
- having the technical specifications of procurement procedures assessed by the Green Public Procurement Helpdesk, and providing support for the inclusion of green criteria at every stage of the procedure.

Future measures

117 The ECA will continue to apply these measures in the future if possible.

Water

119 Catering, lavatories, air conditioning and cleaning the premises account for most of the ECA's water consumption from the municipal network.

120 In line with its environmental policy, the ECA is committed to promoting the efficient use of water and preventing pollution.

General and specific objectives for the 2020-2022 period

- Maintain water consumption per FTE per year at its baseline value (reference year: 2019).

General and specific objectives for the 2023-2025 period

- Reduce water consumption (m^3) per FTE by 30 % over three years (reference year: 2019).

Results

Table 15 — Summary of drinking water consumption results

Drinking water consumption		June 2022	Progression June 2019 – June 2022	Progression June 2014 – June 2022
Gross annual consumption	Total consumption (m^3)	7 140	-43.1 %	-42.6 %
Relative annual consumption	Total consumption (m^3/FTE)	7.37	-45.8 %	-45.3 %
	Total consumption (m^3/FTE/day)	0.03	-45.8 %	-45.3 %

Table 16 – Summary of rainwater consumption results

Rainwater consumption		2022	Progression 2019-2022	Progression 2014-2022
Rainwater consumption	Total consumption (m^3)	180	-9.1 %	26.3 %

Source: European Court of Auditors.

Results analysis

122 These results are based on invoices, which are drawn up annually in June.

123 The target set for the 2020-2022 period was largely met, mainly due to teleworking.

124 The amount of water consumed, which amounts to 7.37 m^3/FTE/year, is slightly above the baseline figure of 6.4 m^3/FTE/year as recommended in the sectoral reference document.

125 Rainwater consumption remained constant between 2021 and 2022.

Actions taken

126 In the past, we have:

- reduced the water pressure in the taps in all of the ECA's buildings;
- installed tap aerators in all buildings;
- installed automatic taps in the K3 building;
- installed battery-free automatic taps as part of the renovation of the K2 building.

Future measures

127 We plan to take the following measures:

- reduce staff water usage through the launch of information campaigns;
- improve the efficiency of our buildings for better water usage.

04.

Other environmental aspects

Other environmental aspects

Green canteen

128 The ECA has one canteen, two cafeterias and one events room. Catering is managed by an external contractor whose contract imposes high environmental standards. In 2022, the number of meals taken at the ECA remained significantly lower than in 2019 (-47 %).

Actions taken

129 We implemented the following measures, which were maintained in 2022:

- a daily vegetarian or vegan option (two vegan dishes a week);
- a vegan soup option twice a week;
- the option to adapt portion sizes by offering salads, fruit and side dishes in a buffet format, thus limiting food waste;
- food waste monitoring in the K3 cafeteria;
- no plastic cutlery at receptions and events, and distribution of mugs to staff to replace single-use coffee cups;
- promotion of local, MSF, organic and fair-trade products.

Future measures

130 We plan to implement the following actions in the future:

- continuing the project to reduce single-use plastics and stop the sale of beverages in plastic bottles;
- gradually introducing changes in eating habits to reach a target of one vegetarian meal per week on average per person;
- continuing to raise awareness of the impact of food on the environment;
- improving the quality of data on waste, and on the number of vegetarian and vegan meals served.

Biodiversity

131 The ECA has various gardens and patios of great biological diversity, each with its own specific characteristics:

- a succulent garden is located to the left of the main K1 entrance;
- the garden to the right of the main entrance to K1 has been designed with plants that particularly attract butterflies and bees;
- the roof of the conference room and the roof of the gallery connecting the ECA's buildings were planted with vegetation during the construction of the gallery;
- between the K1 and K3 buildings there is a flower meadow which is mown only once a year;
- beehives were installed in 2019 between the K2 building and the gallery in a low-growing plant garden;
- near the K2 cafeteria there is a terrace and lawn accessible to staff and, since 2022, there have been planters for the construction of a community garden.

Table 17 — Areas occupied by buildings and green areas

Biodiversity	2022	Progression 2021-2022
Total occupied area (m^2)	18 473	0
Total impermeable surface area (m^2)	16 442	0
Green spaces (m^2)	2 031	0
Green spaces/Total surface area occupied (%)	10.99 %	0

Source: European Court of Auditors.

Objective for the 2023-2025 period

- Increase green spaces by 1 % over three years (reference year: 2022)

Actions taken

132 The following actions have been taken to preserve biodiversity:

- including clauses in the maintenance contracts awarded by the ECA concerning the products and methods used for the maintenance of green spaces;

- introducing labelling requirements for catering and cleaning services;
- late mowing in certain parts of the garden;
- maintenance of the ECA's beehives by the beekeepers' club;
- continuing to manage the seed library, which allows staff to grow and exchange seeds;
- continuing to maintain the ECA's kitchen garden and awareness-raising activities to encourage staff to produce their own food;
- raising staff awareness of the state of forests in Luxembourg and the protection of biodiversity. In July 2021, a four-year active-training partnership was signed with the Natur & Emwelt Foundation. Every year a tree-planting session is organised for ECA officials, as well as forest visits. After the four years, 160 colleagues will have taken part in the project to plant and maintain 1 270 trees and 200 bushes, and 80 staff will have been made aware of the impact of climate change and biodiversity extinction on forests in Luxembourg.

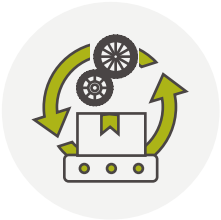
Future measures

133 The following actions may be taken in the future:

- analysing the possibility of installing animal shelters (for insects, bats or birds) depending on budget availability;
- installing a green roof during the renovation of the roof of the K2 building;
- planting additional hedges and maintaining existing hedges;
- continuing to raise awareness of the massive reduction in biodiversity, for example by organising biodiversity collage workshops.

Figure 14 – Second tree-planting in Schieren in December 2022

Source: European Court of Auditors.



The circular economy

134 The ECA participates in many circular economy actions at different levels of its organisation and in a wide range of areas.

135 Internal circular economy initiatives such as bookcrossing areas and the seed library continued in 2022. A collection of clothes for the Red Cross was also organised by volunteers and helped raise staff awareness about the reuse of clothes.

Actions taken

136 The measures already taken to support and foster the circular economy are:

- fitting out three bookcrossing areas;
- systematically reusing certain office supplies, such as binders;
- donating furniture still in good condition to a charity;
- donating IT equipment still in working order to charities. Associations can make requests on the ECA website. Between 2014 and 2021, 97 associations from six different countries received 2 842 items of equipment;
- reusing printer ink cartridges (excluding toner). The cartridges are collected by a company that refills them for resale;
- reuse of the ECA's food waste by the Luxembourg city authorities for composting;
- organising exchanges of office supplies between colleagues during waste week.

Future measures

137 The following actions may be taken in the future:

- encouraging the reuse of furniture;
- raising staff awareness of the possibilities for reusing materials and goods in Luxembourg.

Communication and awareness-raising

138 The ECA uses every possible means of communication to raise staff awareness of environmental issues: online or in-person training, conferences, knowledge-sharing sessions such as “Savoir+” presentations, videos, social media, intranet news items, events organised by or with other institutions, regular updates to the environment intranet page, etc.

139 Compulsory online training is provided to all new ECA staff. New staff are also regularly offered training, depending on their position, on green purchasing, the use of environmental protection equipment (spill kits for the car park), managing hazardous substances, and the EMAS internal audit and the EMAS system.

140 There is a high level of engagement among ECA staff, with certain actions being run by staff volunteers. Groups, known as “communities”, have been formed. They promote exchanges between colleagues, training, and action, as well as raising awareness among other staff. So far, six communities are involved in environmental issues:

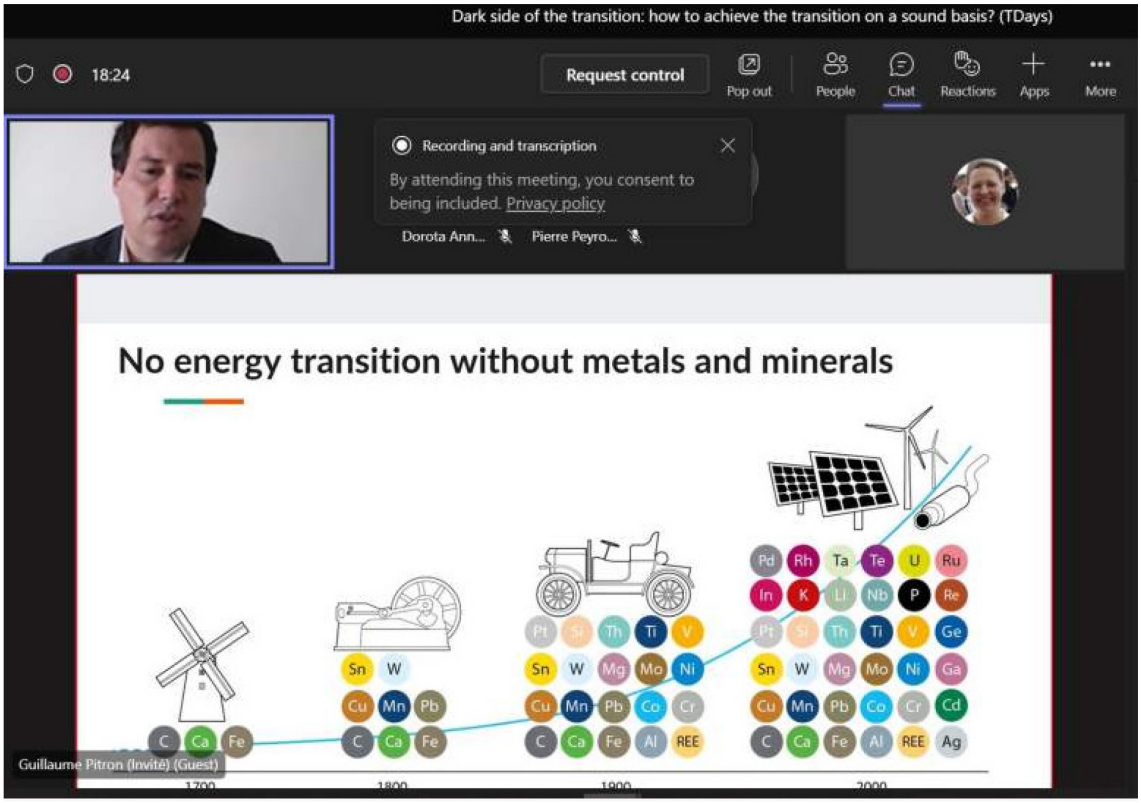
- the beekeepers’ club, who look after the hives;
- the “Plant a tree, grow a forest!” community, which carries out tree-planting;
- the ECA gardeners, who are responsible for the community garden;
- the cycling community, who discuss cycling mobility and organise presentations on this topic for colleagues;
- drivers of electric vehicles, who coordinate the use of charging points amongst themselves;.
- ECA volunteers participate in Repair Cafés, the first of which was organised at the ECA at the end of 2022.

141 The ECA takes part in a number of annual events:

- The EMAS days, which are organised by the European Commission for all European institutions. This event took place from 2 to 5 February 2022; the ECA presented its “Plant a tree grow a forest” initiative during an information session on staff volunteering;
- Earth Hour, the largest public mobilisation event for the planet, organised by the World Wildlife Fund (WWF);
- European Mobility Week, the aim of which is to influence, over time, the resolution of mobility problems and urban transport;

- European Week for Waste Reduction, the aim of which is to promote waste sorting and recycling;
- conferences organised by the interinstitutional Green Procurement Helpdesk.

Figure 15 – Journalist Guillaume Pitron explained the importance of rare-earth elements in an online conference in October 2022



Source: European Court of Auditors.

Main awareness-raising activities in 2022

142 In 2022, we were able to resume in-person awareness-raising activities and topics that could not be addressed during the pandemic, such as waste sorting at the office, were once again the subject of communications.

143 In 2022, we were able to hold 24 environment-related events:

- several staff communication and input sessions were held in relation to the draft roadmap for emission reduction; topics included the Fit for 55 package, carbon capture, the office space of the future and measures taken by other institutions;
- ECA Members were offered training on the European Commission's emission reduction measures;

- specific training was offered to auditors on the European Climate Law;
- JRC Ispra and journalist Guillaume Pitron set out the issues relating to rare-earth elements during the training days;
- climate collage workshops were held for the EMAS team and for the Court's management;
- representatives of the non-profit Repair Café Luxembourg came to present the concept and train volunteers;
- during Mobility Week, a presentation on the cycle-to-work initiative reiterated cycling safety measures and the best cycle routes to the Court;
- training on the principles of market gardening was held for the Court's community gardeners and other interested staff;
- the "Plant a tree, grow a forest!" project enabled four groups of around 10 staff to plant trees in March and December.

Figure 16 – First Repair Café at the Court of Auditors in November 2022

Source: European Court of Auditors.

Legal compliance

144 To ensure compliance with environmental legislation (including conditions for awarding operating permits), and in keeping with its environmental commitments, the ECA has established a comprehensive register of applicable regulations and performs regular compliance audits.

145 The ECA holds operating permits for its three buildings, issued by the Luxembourg Environment Agency. The permit reference details are given in Annex I.

Actions taken

146 We will continue to implement the following measures:

- in the event of an incident that could affect the environment or endanger human health and safety, the ECA immediately informs the Luxembourg Environment Agency;
- the ECA keeps a register of applicable regulations for monitoring purposes and updates it regularly, and also subscribes to an interinstitutional regulatory monitoring system;
- any new rules or changes to environmental regulations applicable to the ECA are brought to the attention of the relevant department at least every month;
- the environmental regulatory compliance database is accessible to the various departments concerned;
- under the EMAS III requirements[12], the ECA monitors certain other compliance obligations arising from contracts, agreements and requests through regular compliance audits.

147 The ECA declares that it fully complies with the requirements of the applicable environmental legislation and its operating permits.

[12] Commission Regulation (EU) 2017/1505 of 28 August 2017 amending Annexes I, II and III to Regulation (EC) No 1221/2009 of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS).

05.

Conclusions and future guidelines

Conclusions and future guidelines

148 The ECA not only achieved but significantly exceeded a large proportion of its targets over the 2020-2022 period. The reduction in the ECA's impact on the environment since 2014 is tangible. The emergence of communities of volunteers among staff to carry out environmental actions shows that our organisation's culture change is well underway.

149 Three roadmaps for the reduction of ECA carbon emissions were drawn up following an internal discussion and exchange process throughout 2022. According to these roadmaps, mobility and buildings are the Court's main sources of greenhouse gas emissions and therefore the main areas in which action can be taken to reduce emissions.

150 The third key factor is the willingness of each individual staff member to voluntarily implement some of the proposed measures and change some of their habits. The Court's staff have already adopted many sustainable behaviours, but other practices need to be encouraged, particularly as regards commuting.

151 The new EMAS Action Plan for 2023-2025 will be implemented through measures affecting the way the Court works. This will mainly take the form of more efficient energy usage, new ways of organising events and visits, and changes in travel habits. These measures should therefore go hand in hand with a robust internal change-management process, in which staff and their representatives are encouraged to participate.

Annexes

Annex I – Variables used to calculate environmental performance indicators

Number of people

153 All data that takes into account staff numbers is calculated based on the average number of full-time equivalent employees (FTEs) for the year. This variable only includes ECA staff, and therefore excludes contractors. It is used to calculate the relative annual consumption of water, electricity, heating and paper, along with the relative annual waste and greenhouse gas emissions generated.

Table 18 — Change in number of FTEs

Year	2014	2019	2020	2021	2022
FTE	922.9	923.2	936.8	954.5	968.8

Source: European Court of Auditors.

Number of working days

154 Figures concerning working days at the EU institutions in Luxembourg are published annually. They include working weekdays only, i.e. excluding weekends and bank holidays. This variable is used to calculate relative annual water consumption.

Table 19 — Change in number of working days

Year	2014	2019	2020	2021	2022
Working days	244	243	244	244	243

Source: European Court of Auditors.

Energy

The electricity and heating consumption data used in this report come from invoices issued by energy suppliers.

We cross-checked this data against consumption data recorded by the metering system installed in the ECA buildings.

We calculated the percentage of renewable energy based on the energy distribution reported by LuxEnergie, the heating supplier, also taking account of fuel oil.

We only use fuel oil to operate the back-up generators. The quantities used are negligible compared to other energy types.

Degree-days

The concept of unified summer/winter degree-days makes it possible to take into account the temperature of every day of the year in question, and thus put the energy consumed in heating or cooling into perspective in relation to climatic conditions and meteorological variations. This concept is very useful for highlighting the effect of the measures taken, even when the meteorological conditions in a given year are unfavourable in terms of consumption.

If, for example, thermal insulation measures have been put in place, but a particularly severe winter leads to an increase in consumption, the use of degree-days negates the weather effect and allows the effect of changing the insulation to be shown. The same principle applies to cooling during heatwaves.

The calculation is based on the following formula:

$$\text{Normalised consumption (MWh)} = \text{fKlima} \times \text{Real consumption}$$

The climate factor (f_{Klima}) is set by ministerial decree and represents the ratio between normal degree-days and unified degree-days for a given year.

Table 20 — Change in the climate factor

Year	2014	2019	2020	2021	2022
Climate factor	0.97	1.07	1.17	0.98	1.13

Source: Grand-Ducal Regulation of 20 April 2022.

Paper

Reported paper consumption data comes from supplier statistics on the number of pages printed or photocopied (including publications). We compare this data against our internal inventory of paper stocks, although we consider the former more reliable.

Greenhouse gas emissions

The carbon footprint for 2022 was calculated by the company 21Solutions, using version V.8.1 of the proprietary Bilan Carbone® carbon footprint calculation method.

This method takes into account the following gases:

- the Kyoto Protocol gases: carbon dioxide ($CO_{2)}$, methane ($CH_{4)}$, nitrous oxide (N_2O), sulphur hexafluoride ($SF_{6)}$, hydrofluorocarbons ($C_nH_mF_p$, C_nF_{2n+2}) and nitrogen fluoride (NF_3);
- other non-Kyoto Protocol gases;
- water vapour emitted by planes at very high altitude.

Waste

The following waste types are sorted at the ECA:

- glass;
- plastic, metal, wooden and composite (PMC) packaging;
- printer toners (refilled and recycled by suppliers) and printer cartridges;
- packaging contaminated with hazardous products;
- organic waste;
- paper/cardboard;
- bulky items;
- mixed municipal waste;
- ceramics;
- electrical and electronic waste;
- batteries;
- fluorescent tubes;
- small office supplies;
- cigarette butts;
- edible fats and oils, and oil/water separator sludge.

Since the beginning of 2023, the data on waste generation has been collected via the systematic weighing of waste on site, except for glass, paper and municipal waste, which is weighed by the City of Luxembourg.

Green procurement

The results in this report are based on the ECA Procurement Service evaluation of whether environmental considerations were taken into account in planning and conducting a tendering procedure, in the contract itself and when monitoring contract execution.

Method used for contracts where the award criteria are both quality and price:

- Less environmentally friendly contracts: the weighting for environmental criteria as a proportion of the total (price and quality) is less than 10 %.
- Moderately environmentally friendly contracts: the weighting for environmental criteria as a proportion of the total is 10 % or more.
- Very environmentally friendly contracts: the weighting of environmental criteria as a proportion of the total is 25 % or more.

Water

- Reported water consumption data comes from invoices issued by the water supplier.
- We cross-checked this data against consumption data recorded by the metering system installed in the ECA buildings.
- Relative annual water consumption is based on working days.

Legal compliance

Table 21 – List of operating permits

Building	Registration number	Date of issue
K1	Order No 1/16/0160	8 June 2017
K2	Order No 1/20/0043	24 February 2021
K3	Order No 3/22/0597	10 March 2023

Source: European Court of Auditors.

Annex II – Detailed results of calculations of environmental performance indicators

Energy

Table 22 — Multiannual comparison

Energy consumption		2014	2019	2020	2021	2022
Gross energy consumption by activity	Total electricity consumption (MWh)	5 024.0	4 252.9	3 687.5	3 507.4	3 454.9
	Total heating consumption (MWh)	3 762.9	3 270.2	2 965.0	3 189.5	2 637.8
	Fuel oil (MWh)	10.1	41.5	0.0	0.0	26.6
Total gross energy consumption	Total energy consumption (MWh)	8 786.9	7 564.6	6 652.5	6 696.9	6 119.2
	Renewable energy consumption (MWh)	8 663.9	6 074.4	5 407.2	5 079.9	4 984.8
	Renewable energy %	99%	80%	81%	76%	81%
Relative energy consumption (per FTE)	**Electricity (MWh per FTE)**	**5.44**	**4.61**	**3.94**	**3.67**	**3.57**
	Heating (MWh/FTE)	4.08	3.54	3.17	3.34	2.72
	Heating, corrected value (MWh/FTE)	**3.95**	**3.79**	**3.70**	**3.27**	**3.08**
	Fuel oil (m^3/FTE)	0.01	4.22	0.00	0.00	0.03

Source: European Court of Auditors.

Table 23 – Estimated electricity consumption in 2022, by building

Building	Reading (kWh)	Estimate based on total invoice (kWh)	Occupants	Consumption (kWh per person)	m²	Consumption (kWh/m²)
K1	741 507	759 511	327	2 323	26 051	29
K2	875 372	896 626	227	3 950	21 562	42
K3	1 735 158	1 777 288	545	3 261	33 877	52
ECA	3 352 037	3 433 425	1 099	3 124	81 490	42

Source: European Court of Auditors.

The data in blue is prorated based on the site readings and the total consumption invoiced by the supplier.

Table 24 – Heating consumption in 2022, by building

Building	Invoiced consumption (kWh)	Occupants	Consumption (kWh per FTE)	Surface area (m²)	Consumption (kWh/m²)
K1	895 200	327	2 738	26 051	34.4
K2	613 010	227	2 700	21 562	28.4
K3	1 129 550	545	2 073	33 877	33.3
ECA	2 637 760	1 099	2 400	81 490	32.4

Source: European Court of Auditors.

Paper

Table 25 — Multiannual comparison

Paper consumption		2014	2019	2020	2021	2022
Gross annual consumption	Pages printed/photocopied (office work)	10 682 297	6 183 794	2 011 891	1 786 391	2 636 087
	Publications	5 737 468	711 922	132020	122 698	201924
	Total pages (office work + publications)	16 419 765	6 895 716	2 143 911	1 909 089	2 838 011
Relative annual consumption	Pages printed/photocopied (office work per FTE)	11 574.71	6 698.22	2 147.7	1 871.5	2 720.91
	Total pages (office work + publications per FTE)	17 791	**7 469**	**2 289**	**2 000**	2 929
	Total pages (office work + publications per FTE per day)	72.92	30.74	9.38	8.20	12.05

Source: European Court of Auditors.

Greenhouse gas emissions

Table 26 – Multiannual comparison of greenhouse gas emissions (tCO_2e)

Category	2014	2019	2020	2021	2022
Buildings	**4 066**	**3 820**	**3 018**	**3 701**	**3 456**
Fixed assets	1 790	1 745	1 644	1 616	1 543
Cleaning service	173	1	2 44	51	212
Energy in buildings	1 840	1 561	1 004	1 246	1 159
Buildings non-energy	82	47	143	38	106
Water purchased	2	2	2	0	1
Repairs, maintenance and installation services	110	368	1	657	401
Subscriptions	36	73	42	59	0
Waste	34	25	30	34	34
Digital	1 245	426	1 837	2 105	**1 126**
Digital	1 245	426	1 837	2 105	1 126
Goods and services	1 283	1 091	613	1 124	**1 086**
Catering	212	282	47	91	119
Miscellaneous services	0	222	207	220	189
Other	619	255	167	338	262
Paper	39	17	5	5	13
Goods purchased	337	199	124	355	409
Translation services,	59	111	60	115	94
Transport of goods	16	5	3	0	0
Mobility	4 105	3 750	491	577	**2 252**
Business trips	1 475	1 046	97	85	445
ECA vehicle fleet	85	83	92	94	94
Commuting	1 640	1 188	179	305	1 055
Nights spent in hotels during business trips	0	0	9	6	25
Meals during business trips	0	0	1	2	5
Support transport service; travel agency	0	116	0	57	193
Visitors' journeys	905	1 316	113	27	435
Teleworking	**0**	**0**	**93**	**72**	**69**
Teleworking	0	0	93	72	69
Total	**10 699**	**9 087**	**6 052**	**7 578**	**7 989**

Source: Comase and 21Solutions.

Data for previous years has been recalculated on the basis of the assumptions used for the calculation of the carbon footprint for 2022.

Table 27 — Multiannual comparison of kilometres travelled by activity

BUSINESS TRAVEL		2014	2019	2020	2021	2022
Gross annual total	Total distance covered for business travel (in km):	5 970 499	4 317 152	586 807	446 484	2623993
	by air (km)	4 332 818	3 528 447	380 841	351 207	2101679
	by private car (km)	385 828	219 137	65 750	28 212	144 210
Relative annual total	Total distance covered for business travel (in km per FTE)	6 469	4677	626	468	2708

Table 28 — Details of emissions for 2022 (Bilan Carbone® carbon footprint calculation method)

CATEGORY	Sum of CO_2 emissions (tCO_2e) for 2022
Capitalised assets	1 637
Buildings energy	1 159
Buildings non-energy[13]	106
Goods and services purchased	1 924
Transport of persons	1 934
Transport of goods	0.2
Waste	34
Teleworking	69
Digital	1 126
Grand total	**7 989**

[13] "Buildings non-energy" takes into account the impact of installations containing refrigerants (cooling systems, cold storage for catering, etc.).

Green procurement

Table 29 — Multiannual comparison

PUBLIC PROCUREMENT		2018	2019	2020	2021	2022
Number	*Very environmentally friendly*	2	2	0	0	1
	Moderately environmentally friendly	3	1	1	0	0
	Less environmentally friendly	1	1	1	2	0
	Not environmentally friendly	0	0	1	3	7
	percentage of *not* and *less environmentally friendly* contracts	17 %	25 %	67 %	100 %	87.5 %
	percentage of *moderately* and *very environmentally friendly* contracts	83 %	75 %	33 %	0 %	12.5 %
Value	*Very environmentally friendly*	€7 724 924	€9 585 450	0	0	€3 376 102
	Moderately environmentally friendly	€148 000	€150 000	€473 990	0	0
	Less environmentally friendly	€183 886	€513 567.00	€560 000	€283 231	0
	Not environmentally friendly	0	0	€143 230	€763 615	€1 462 148.00
	percentage of *not* and *less environmentally friendly* contracts	2.28 %	5.01 %	59.74 %	100 %	30.22 %
	percentage of *moderately* and *very environmentally friendly* contracts	97.72 %	94.99 %	40.26 %	0 %	69.78 %

Waste

Table 30 — Multiannual comparison

Waste generated		2018	2019	2020	2021	2022
Gross annual amount	Total waste generation (t), of which:	176.4	193.7	91.6	74.4	105.7
	food waste (t)	23.6	25.55	6.25	1.86	12.45
	paper and cardboard waste (t)	46.8	47.57	26.46	14.23	24.20
	mixed municipal waste (t)	34.52	40.71	17.51	13.33	16.1
	hazardous waste (t)	61.2	69.16	27.61	18.46	43.81
Relative annual amount	Total waste generated (kg/FTE)	**190.34**	**193.74**	**91.57**	**74.44**	**105.73**
	Total food waste generated (kg/FTE)	**25.45**	**27.68**	**6.67**	**1.94**	**12.85**
	Total hazardous waste generated (kg/FTE)	66.08	74.91	29.47	19.34	45.22

Table 31 — Quantity of waste generated in 2022 (by type)

NO	WASTE CODE	OFFICIAL DESCRIPTION	QUANTITY (KG) 2022	QUANTITY (KG/FTE)	TREATMENT 2022
1	130107	oily water from oil/water separators	8 340	8.6	Destruction
2	130502	sludge from oil/water separators	1700	1.8	Recycling
3	150102	plastic packaging	748.82	0.8	Recycling
4	150106	mixed packaging	2445	2.5	Recycling
5	150107	glass packaging	948.6	1.0	Recycling
6	150110	packaging containing residues of, or contaminated by, hazardous substances	82.4	0.1	Recycling
7	150110	packaging containing residues of, or contaminated by, hazardous substances	91.4	0.1	Destruction
8	150202	absorbents, filter materials (including oil filters not specified elsewhere), cloths for wiping and protective clothing contaminated by hazardous substances	1	0.0	Recycling
9	150203	absorbents, filter materials, cloths for wiping and protective clothing other than those mentioned under 15 02 02	426	0.4	Recycling
10	160215	hazardous components removed from scrapped equipment	101	0.1	Recycling
11	160601	lead batteries	676	0.7	Recycling
12	170107	mixtures of concrete, bricks, tiles and ceramics other than those mentioned under 17 01 06	86	0.1	Recycling
13	170107	mixtures of concrete, bricks, tiles and ceramics other than those mentioned under 17 01 06	46	0.0	Destruction
14	170203	plastics	185.3	0.2	Recycling
15	170402	aluminium	50	0.1	Recycling
16	170405	iron and steel	386.34	0.4	Recycling
17	170411	cables other than those mentioned under 17 04 10	187.64	0.2	Recycling
18	170604	insulation materials other than those mentioned under 17 06 01 and 17 06 03	64	0.1	Recycling

NO	WASTE CODE	OFFICIAL DESCRIPTION	QUANTITY (KG) 2022	QUANTITY (KG/FTE)	TREATMENT 2022
19	200108	biodegradable kitchen and canteen waste	12454	12.9	Recycling
20	200111	textiles	340	0.4	Recycling
21	200121	fluorescent tubes and other mercury-containing waste	153.86	0.2	Recycling
22	200125	edible oils and fats	20642	21.3	Recycling
23	200125	edible oils and fats	10200	10.5	Destruction
24	200133	batteries and accumulators mentioned under 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	34.4	0.0	Recycling
	200135	scrapped electrical and electronic equipment containing hazardous components other than those mentioned under 20 01 21 and 20 01 23	632.28	0.7	Recycling
26	200137	wood containing hazardous substances	560	0.6	Recycling
27	200139	plastics	196	0.2	Recycling
28	200140	metals	110	0.1	Recycling
29	200201	biodegradable waste	3500	3.6	Recycling
30	200301	mixed municipal waste	16065	16.6	Destruction
31	080111	waste paint and varnish containing organic solvents or other hazardous substances	1.7	0.0	Destruction
32	150101 and 200101	paper and cardboard	24195	25.0	Recycling
33	150103 and 170201	wood and wood packaging	158.8	0.2	Recycling
	Annual total		**105 726**	**109.1**	
	Recycling rates			67%	
	Sorting rates			85%	

Code red: Hazardous waste

Water

Table 32 — Multiannual comparison

Water consumption		June 2018	June 2019	June 2020	June 2021	July 2022
Gross annual consumption	Total consumption (m^3)	12 502	12 548	11 707	5 674	7 140
Relative annual consumption	Total consumption (m^3/FTE)	**13.49**	**13.59**	**12.50**	**5.94**	**7.37**
	Total consumption (m^3/FTE/day)	0.056	0.056	0.051	0.024	0.030

Biodiversity

Table 33 — Multiannual comparison

Biodiversity	2018	2019	2020	2021	2022
Total occupied area (m^2)	18 687	18 687	18 473	18 473	18 473
Total impermeable surface area (m^2)	16 442	16 442	16 442	16 442	16 442
Green spaces (m^2)	2 245	2 245	2 031	2 031	2 031
Green spaces/Total surface area occupied (%)	12 %	12 %	11 %	11 %	11 %

Verification data

Glossary

Term/abbreviation	Definition
Bilan Carbone®	Bilan Carbone® is the most widely used approach to recording and reducing greenhouse gas emissions in France. It is based on the method used by the French Environment and Energy Management Agency ADEME.
BREEAM	The "BRE Environmental Assessment Method", developed by the Building Research Establishment, makes it possible to assess the environmental performance of buildings during their construction.
Carbon credit	Promoters of greenhouse gas emission reduction or sequestration projects may be issued with carbon credits when their projects meet certain specific criteria. A carbon credit is a unit equivalent to one tonne of CO_2 avoided or sequestered.
EMAS	*Eco-Management and Audit Scheme*
EU	European Union
European Green Deal	The European Green Deal is a European Commission action plan. It aims to transform the EU into a modern, resource-efficient and competitive economy, ensuring: o the end of net greenhouse gas emissions by 2050; o decoupled economic growth from resource use; o that no one is left behind.
FSC ®	The FSC® label is an environmental label which certifies that timber comes from forests or plantations managed responsibly and sustainably (management that meets the social, economic, ecological and cultural needs of present and future generations).
FTE	Full-time equivalent
Green procurement helpdesk **(GPP Helpdesk)**	Advice service on green public procurement, outsourced by the EU institutions.
Green public procurement criteria/clauses	o Not green: not environmentally friendly. The invitation to tender does not include any reference to environmental aspects. o Light green: less environmentally friendly. The invitation to tender includes a reference to the environmental aspects of the contract, but this does not affect the procurement process and will not have an environmental impact during the performance of the contract. o Medium green: moderately environmentally friendly. The invitation to tender includes significant environmental clauses designed to reduce the environmental impact of the contract.

	o Top green: very environmentally friendly. This final category corresponds to environmental best practices.
Greenhouse Gas Protocol	The Greenhouse Gas Protocol is an international protocol providing a framework for measuring and managing greenhouse gas emissions from private and public sector activities, developed by the *World Business Council for Sustainable Development* (WBCSD) and the *World Resources Institute* (WRI).
Hazardous waste	All waste considered potentially hazardous to the environment, health or safety, all or part of which can be recycled, such as electronic equipment, toner cartridges, packaging soiled with hazardous products, etc.
Household and similar waste	Non-hazardous unsorted waste from households or from industrial enterprises, skilled trades, shops, schools, public services, hospitals and tertiary services, when collected under the same conditions as household waste. This includes towels and packaging soiled with food leftovers. In Luxembourg, this type of waste is incinerated with added fuel due to its high moisture content.
ISO 14001	This standard sets out a series of requirements specific to the establishment of an environmental management system within an organisation, regardless of its size and area of activity.
IT (*information technology*)	IT equipment: networks, equipment, programmes, etc.
Paris Agreement	The Paris Agreement, often called the Paris Climate Agreement, is an international treaty on global warming adopted in 2015. It covers climate change mitigation, adaptation and financing of climate change actions. The long-term objective of the Paris Agreement relating to temperature is to keep the global average temperature increase well below 2 °C above pre-industrial levels, and preferably to limit the increase to 1.5 °C, the idea being that this would significantly reduce the impact of climate change.
Primary energy	A primary energy source is a form of energy present in nature that can be used directly without transformation.
Public procurement/call for tender	Purchase of goods or services by a public authority in exchange for remuneration. A public procurement procedure leads to the conclusion of a public contract.

Rare earths	Rare earths are metals that share certain common or close properties and have an atomic number between 57 and 71; these electromagnetic metals have a metallic appearance and are malleable. Contrary to what their name might suggest, not all of these earths are rare. Many of these metals are necessary for the manufacture of electronic equipment.
Savoir+	In-house knowledge-sharing sessions organised by the professional training service. Sessions last 30-45 minutes and are held over breakfast at 9.15 on Friday mornings.

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Next environmental statement: **November 2024**

Next main statement: November 2025