EUROPEAN CENTRAL BANK

EUROSYSTEM

ECB Environmental Statement 2016

GREEN ECB

This environmental statement provides information to the general public and other interested parties about the environmental performance and activities of the European Central Bank (ECB) between 2013 and 2015. It can be found on the ECB's website (see the page entitled "Environmental protection at the ECB").

The ECB was first validated under the EU Eco-Management and Audit Scheme (EMAS)[1] in 2010. This environmental statement is the seventh to be produced within the EMAS validation cycle.

This new consolidated environmental statement was drafted in accordance with EMAS III standards.

[1] EMAS was established by Regulation (EC) No 1221/2009 of the European Parliament and of the Council.

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1 Foreword

It gives me great pleasure to introduce the ECB's environmental statement for the first time.

Bolstered by events such as the ratification of the Paris Agreement, this past year has seen significant global achievements in the fight against climate change. Countries, organisations and individuals from all over the world are coming together to promote the move away from activities that have destructive effects on the environment and which drive climate change.

Since joining the ECB as Chief Services Officer in January this year, I have been impressed by our commitment to continued environmental improvement. We are striving to be a leader among similar organisations in integrating sound environmental considerations into how we carry on our business, particularly across our support functions. I remain very confident in our ability to continue in this vein.

Despite occupying the Main Building for more than a year, we are still looking for new ways to reduce our environmental impact. Collaboration within the ECB and with our external suppliers has become more frequent and important over the last 12 months of the ECB's Environmental Management System, and I am pleased to highlight this and drive further efforts.

Throughout the year the ECB has continued to exchange advice and best practices in the field of environmental management within various inter-institutional groups, in which participating members work together to advance such topics in their organisations.

On a European level, various central banks within the European System of Central Banks are looking into the issue of "green finance". The European Systemic Risk Board, through its Advisory Scientific Committee, also recently published a report on the financial stability implications of a rapid and disorderly transition to a low-carbon economy. Furthermore, the ECB participates in various European fora where the issue of financing the transition to a sustainable economy is also discussed on a regular basis.

Finally, last November the ECB successfully hosted the "20 years of premium environmental management – High Level Conference on EMAS". Having been a registered member of the Eco-Management and Audit Scheme (EMAS) since 2010, the ECB was delighted to receive an honorary EMAS award in recognition of its effort and early commitment to environmental sustainability.

Michael Diemer
Chief Services Officer

2 ECB's objectives and activities

2.1 Main objectives

The European Central Bank (ECB) and the national central banks (NCBs) of the Member States whose currency is the euro together constitute the Eurosystem, the monetary authority of the euro area. The euro area comprises the 19 European Union countries that have introduced the euro since 1999.

The main objective of the Eurosystem is to maintain price stability and to safeguard the value of the euro. Acting as a leading financial authority, it aims to safeguard financial stability and promote European financial integration. Furthermore, the ECB has the exclusive right to authorise the issue of euro banknotes by the NCBs, of the euro area. The responsibility for their production and circulation is shared among the NCBs.

The ECB is also responsible for the prudential supervision of credit institutions located in the euro area and participating non-euro area Member States, within European banking supervision, which also comprises the national competent authorities. It thereby contributes to the safety and soundness of the banking system and the stability of the financial system within the EU and each participating Member State.

The ECB's mission

We at the ECB are committed to effectively performing all central bank tasks entrusted to us. In so doing, we strive for the highest level of integrity, competence, efficiency and accountability. We respect the separation between our monetary policy and supervisory tasks. In performing our tasks we are transparent while fully observing the applicable confidentiality requirements.

The mission of European banking supervision

In pursuing our objectives, we in European banking supervision attach utmost importance to credibility and accountability. We aim for effective communication with the citizens of Europe. We are committed to conducting our relations with European and national authorities in full accordance with the relevant law and with due regard to the principle of independence.

We develop a supervisory approach that meets the highest international standards. We will implement the EU policies on the prudential supervision of banks in a coherent and effective manner, based on a best practice framework for independent, forward-looking and risk-based supervision. We respect the principle of proportionality, the unity and integrity of the internal market and the public interest.

Detailed information on the ECB's mission and tasks is available at www.ecb.europa.eu

2.2 Organisation

The Eurosystem and the European System of Central Banks (ESCB) are governed by the decision-making bodies of the ECB: the Governing Council and the Executive Board.

The Governing Council is the main decision-making body of the ECB. It comprises the members of the Executive Board of the ECB and the governors of the NCBs of the euro area countries. It adopts the guidelines and makes the decisions necessary to ensure that the Eurosystem performs the tasks with which it is entrusted. The Governing Council also formulates monetary policy for the euro area.

The Executive Board comprises the President and the Vice-President of the ECB and four other members appointed by the European Council, acting by qualified majority, after consultation with the European Parliament and the ECB. The Executive Board implements monetary policy in accordance with the guidelines and decisions laid down by the Governing Council and has overall responsibility for the management of the day-to-day business of the ECB and its resources.

The General Council constitutes the third decision-making body of the ECB (for as long as there are EU Member States which have not yet adopted the euro). The General Council is composed of the President and the Vice-President of the ECB and the governors of the NCBs of all 28 EU Member States. The functioning of the decision-making bodies is governed by the Treaty on the Functioning of the European Union, the Statute of the ESCB and the relevant Rules of Procedure.[2]

Decision-making within the Eurosystem and the ESCB is centralised. However, the ECB and the euro area NCBs jointly contribute, strategically and operationally, to attaining the common goals of the Eurosystem, with due regard to the principle of decentralisation in accordance with the Statute of the ESCB. As to its organisation, the ECB is function-based and is divided into business areas (directorates and directorates general), divisions and sections. This composition is complemented by other structures, such as project teams, working groups and committees. These structures ensure interdisciplinary competences and cross-organisational perspectives.

Following the introduction of European banking supervision in 2014, the ECB performed a comprehensive review of its internal organisational processes and practices in 2015. The views of staff members were collected via an ECB-wide staff survey. The role of Chief Services Officer (CSO) was created to improve coordination across support functions and better facilitate the orientation of support services towards the needs of the institution as a whole. The CSO is responsible for matters concerning administrative services, IT services, human resources, budget and finance. The CSO reports to the Executive Board via the President and regularly attends Executive Board meetings.

[2] For the ECB's Rules of Procedure, see Decision ECB/2014/1 of 22 January 2014 amending Decision ECB/2004/2 of 19 February 2004 adopting the Rules of Procedure of the European Central Bank, OJ L 95, 29.3.2014, p. 56; Decision ECB/2004/2 of 19 February 2004 adopting the Rules of Procedure of the European Central Bank, OJ L 80, 18.3.2004, p. 33; Decision ECB/2004/12 of 17 June 2004 adopting the Rules of Procedure of the General Council of the ECB, OJ L 230, 30.6.2004, p. 61; and Decision ECB/1999/7 of 12 October 1999 concerning the Rules of Procedure of the Executive Board of the ECB, OJ L 314, 8.12.1999, p. 34. These rules are also available on the ECB's website.

In 2015 the ECB provided on average 4,158 occupied workplaces,[3] with 2,612 occupied workplaces in the Main Building and 1,546 in the city centre.

3 ECB's premises

3.1 ECB's current premises

Picture credit: European Central Bank, 2016

In 2015 the ECB was located across four premises in Frankfurt am Main: the Main Building, the Japan Center, the former Commerzbank building and the Eurotheum (until the end of June 2015). During 2015 the Eurotower in Frankfurt city centre was returned to the landlord for refurbishment. This was completed in the first quarter of 2016 so the data for the Eurotower for 2015 is not included within the scope of this environmental statement.

As the rented space in the Eurotheum was handed back to the landlord in mid-2015, this building will not be described in detail in the following chapters. Nevertheless, the environmental data for the Eurotheum from January until the end of June 2015 are included in the scope of this environmental statement.

[3] The concept of "workplaces" is used to represent the number of employees working on ECB premises, comprising both ECB staff and non-ECB staff, such as consultants, contractors, etc., as used in EMAS.

As in previous years, the buildings located in the city centre, namely the Japan Center, former Commerzbank building (until September 2016), Eurotower (included again in 2016) and Eurotheum (until 2015), are considered together as aggregated figures in this environmental statement. The environmental data for the Main Building are presented separately and are not representative of the business-as-usual mode of operating, as it is expected that the full testing of the building's functions and technical systems will continue well into 2016.

As a result of the many office moves between the buildings that took place in the previous reporting cycle from 2013 to 2015, the current comparison of the buildings' environmental performances is not representative. Furthermore, it is difficult to draw comparisons between the ECB's premises as they are all of different standards because they were built at different times over the last three decades.

In 2013 the ECB occupied the Eurotower, the former Commerzbank building and the Eurotheum. Owing to an increase in both business activity and the number of staff, more office space was needed at the end of 2014 and during 2015. To address this, the ECB rented additional space in the Japan Center and the Eurotower to support the establishment of European banking supervision. These changes were incorporated into the Environmental Management System (EMS) and the 2015 update of the ECB's environmental statement, which included the figures for the environmental performance of the Eurotower, former Commerzbank building, Eurotheum and Japan Center.

The relocation to the new building only took place in November 2014 and it was incorporated into the scope of the EMS as of 2015, together with the former Commerzbank building, Japan Center and Eurotheum (for part of 2015). The Eurotower was not occupied in 2015 and is therefore not included in the scope of this environmental statement, owing to refurbishment activities. The Eurotower will only be included in the scope of the EMS again from the end of March 2016.

3.2 Main Building

The ECB's Main Building is located in Frankfurt's Ostend area. It is the only property owned by the ECB and it houses nearly two-thirds of the ECB's workplaces.

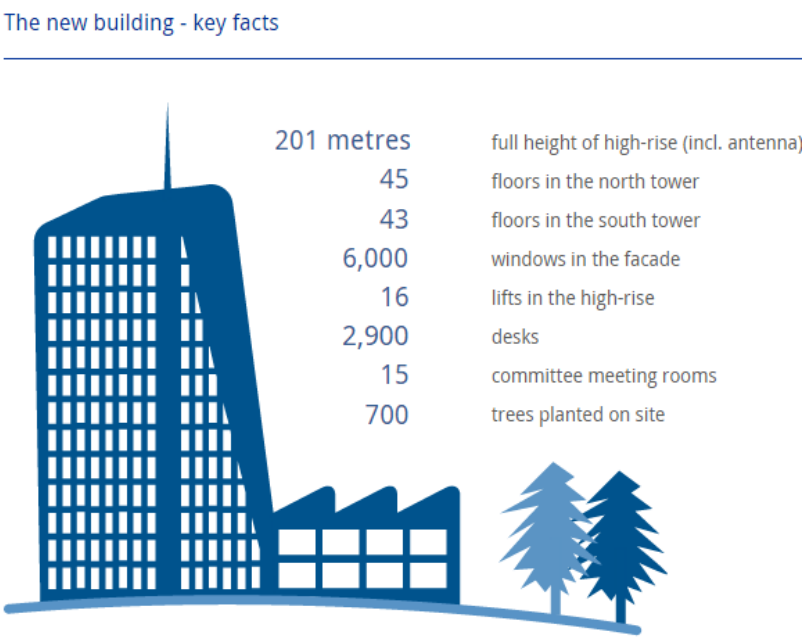
The new building ensemble is a notable addition to Europe's architectural heritage. During the planning phases of its construction, a key element of the ECB's aims was to have a sustainable building that achieved efficiency in terms of energy and water consumption. For example, the energy design of the Main Building includes a number of measures that were planned to ensure it is 29% more efficient than the basic requirements of the Energieeinsparverordnung (German energy-saving directive) of 2007.

The design of the Main Building comprises the following key features:

- energy-efficient triple-layered facade for the new high-rise tower and efficient insulation for the facades and roof of the Grossmarkthalle;
- natural ventilation based on operable facade elements, electric sun-shading and low-energy lighting, to provide optimal workplace conditions with a maximum use of daylight;
- rainwater harvesting and recycling, e.g. for toilets and watering the parkland area;
- use of recycled heat (from the computer centre and atrium);
- the use of geothermal energy for heating and cooling.

In addition, a special landscaping concept for the surrounding parkland area was also implemented, which not only creates a positive working environment for staff but, by connecting with the nearby parks and the city's green belt, contributes to the creation of a "green lung" for the city of Frankfurt. The area has been transformed from a fully paved industrial perimeter into a stylised river landscape with more than 700 newly planted trees, thus contributing to the urban regeneration of the area.

As the Main Building's technical systems only started operations in autumn 2014, they will remain in a test mode until at least the end of 2016, with presumably higher energy consumption than in a longer-term optimised operation mode. The optimisation of installations including, for example, operating hours, takes place on an ongoing basis to adjust the building's conditions to the occupants' needs. This mode of optimisation means that the environmental data for 2015 cannot be considered representative.



Picture credit: European Central Bank, 2016

3.3 City centre

Approximately one-third of ECB workplaces are located in various rented premises across Frankfurt's city centre, namely in the Japan Center, former Commerzbank building, Eurotower and – until June 2015 – the Eurotheum. The ECB started renting space in the Japan Center in 2014 to host the activities of European banking supervision on an interim basis.

The refurbishment of the Eurotower took place between January 2015 and February 2016 and ECB employees working for European banking supervision moved into the building in March 2016. Environmental considerations played a very important role during the refurbishment and a variety of improvements to the technical infrastructure were made. These improvements included:

- the installation of new combined heat and power plants;
- energy-efficient sun-shading systems;
- insulation of the concrete core;
- new air conditioning systems;
- more efficient lifts;
- LED lighting in the offices.

The aim of implementing these measures is to help reduce resource consumption and lower the carbon emissions of the ECB's operations. As a result of the efficiency gains, the landlord intends to apply for an environmental certification for the building.

The carbon footprint of the relocation to the Eurotower was estimated to have been equivalent to producing approximately 7 tonnes of CO_2 emissions over the two relocation weekends. These emissions were compensated via the relocation service provider's dedicated corporate scheme.

After staff had moved into the Eurotower, the Japan Center also commenced a process of refurbishment to refit it for the relocation of staff from the former Commerzbank building, which is expected to take place towards the end of 2016. The refurbishment aims to meet the ECB's specific technical requirements by reconfiguring certain floors to provide technical infrastructure, such as gas extinguishing systems, uninterruptible power supply systems and technical rooms for IT and security infrastructure. Following the relocation, the former Commerzbank building will be handed back to the landlord and removed from the scope of the ECB's EMS reporting.

4 Environmental management at the ECB

4.1 Environmental policy

The overall intentions and direction of the ECB in terms of its environmental performance and objectives are outlined in its environmental policy. The latest version of this policy was adopted in 2013. The policy concentrates on staff awareness and behavioural change.

Internal and external staff working at the ECB's premises are invited to integrate the environmental policy into their daily work and to actively contribute to the achievement of its objectives.

Environmental policy

The ECB is committed to continuously improving its environmental performance and to minimising its ecological footprint by:

- stimulating a sustainable change in the behaviour of all internal and external staff and subcontractors through training, information and action to raise awareness;
- taking measures to reduce carbon emissions in its daily operations and using resources efficiently and responsibly;
- increasingly integrating environmental considerations into procurement procedures, further developing the sustainable procurement guideline and training purchasers;
- promoting transparent communication and dialogue with all interested parties internally and externally with regard to its environmental performance;
- complying with applicable environmental legal regulations.

4.2 Environmental management organisation

Each business area is responsible for adhering to the environmental governance framework.

The Green ECB team monitors all EMS-relevant aspects and coordinates related activities. It consists of an Environmental Coordinator and an Environmental Officer, both appointed by the Executive Board, as well as the Environmental Representatives and Deputies group, appointed by their business area heads. The Environmental Expert and Trainee support the Environmental Officer and Environmental Representatives in fulfilling their mandates.

The roles and responsibilities of the Green ECB team are listed in the table below.

Executive Board	• Adopts the environmental policy and the environmental governance framework. • Provides resources and appoints an Environmental Coordinator and an Environmental Officer. • Signs off and authorises the publication of the ECB's annual Environmental Statement.
Chief Services Officer	• Adopts the environmental governance framework and environmental objectives and endorses the environmental management programme. • Provides strategic guidance on EMS-related issues and, where necessary, resolves disputes. • Considers and approves the EMS management review and all EMS documents to be submitted to the Executive Board. • May invite the Green ECB team to present or submit via a written procedure an update on the status of the ECB's EMS and its results and achievements to senior management, the Management Committee and/or the Executive Board.
Environmental Coordinator	• Sets strategic environmental goals and supervises policy compliance. • Steers the EMS, assesses environmental performance, ensures the effectiveness of the EMS and that senior management are integrated and supportive of it. • Adopts the Environmental Management Handbook and any amendments to it.
Environmental Officer	• Takes responsibility for the entire EMS in accordance with the standards and coordinates all matters in the field of environmental protection management. • Acts as the internal contact person for environmental issues and incidents with an environmental impact. • Reports to the Environmental Coordinator and the Chief Services Officer on key issues. • Coordinates the Green ECB initiative, leads the Green ECB team and maintains internal communication on environmental topics. • Leads the team of Environmental Representatives and provides support during their appraisal exercise in relation to the activities carried out for the maintenance and development of the EMS. • Provides encouragement and advice on local initiatives by business areas on environmental topics and advises on the implementation of adequate training measures. • Maintains the employee suggestion scheme and assesses staff proposals.
Environmental Representatives	• Ensure that all the interests of each business area are considered within the EMS and maintain horizontal communication on EMS-related matters. • Support the implementation of the EMS in all ECB business areas and units.

4.3 Environmental Management System

In 2010 the ECB developed and implemented an Environmental Management System (EMS), following the international standard EN ISO 14001 and EMAS.[4]

This EMS is fully integrated into the ECB's general governance framework and is outlined in the organisation's Business Practice Handbook (BPH), which applies to all staff. It provides guidance to staff on how to implement the objectives, on what the responsibilities are and how the validation of the EMS takes place. The structure of the EMS is further detailed in the Environmental Management Handbook (EMH), which is referred to in the BPH. The EMH contains additional binding rules, processes and operational procedures for maintaining the EMS in accordance with the standards, e.g. compliance, verifications, corrective actions, etc. In addition, it incorporates specific aspects that have a major impact on the environment (e.g. installations and facilities, IT infrastructure and equipment, travel, etc.).

In accordance with the standards, the EMS is subject to internal and external environmental verifications. To avoid deviations from its environmental governance framework, the ECB has established various instruments to monitor and measure environmental performance. Internal environmental verifications are carried out regularly by the Environmental Officer with the support of external experts.

The scope of the EMS comprises all activities at the ECB's Main Building and the premises in the city centre of Frankfurt am Main.

All activities related to the maintenance and development of the EMS are coordinated and carried out under the title "Green ECB".

GREEN ECB

[4] 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).

4.4 Environmentally-related communication and awareness-raising

The previous 12 months have been a very active period for the Green ECB initiative in the areas of communications and awareness-raising. The Green ECB team was able to organise and participate in a host of events with the aim of engaging with both external and internal stakeholders.

For the wider general public, information on environmental protection at the ECB is made available on the ECB's environmental protection webpage. The previous environmental statements of the ECB can be found on the webpage and are available to download but not to print. As of 2013, printing credentials for the environmental statements can be requested from the Green ECB team by following the instructions available on the last page of each of the publications.

A major highlight of the past year was the hosting of the "20 years of premium environmental management – High Level Conference on EMAS" in November 2015. The conference was organised by the European Commission and attended by around 200 participants from numerous EMAS-registered public and private sector organisations. It served as a forum for EMAS practitioners and international experts to exchange views on the environmental management standard and how to exploit it to its full potential to foster green growth and a circular economy.

At the conference, the ECB was delighted to receive the first honorary EMAS Award in recognition of its outstanding performance, credibility and transparency in environmental management.

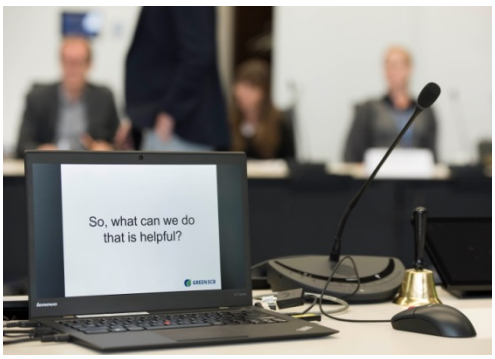
Kestutis Sadauskas, Director Green Economy, European Commission, presenting Vítor Constâncio, Vice-President of the European Central Bank, with the honorary EMAS Award
Picture credit: European Commission, 2015

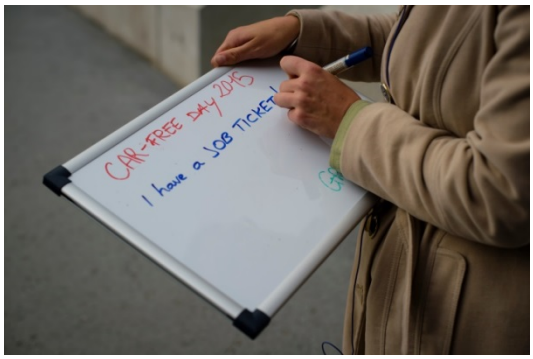
Furthermore, a film on "Environmental Protection at the ECB" was produced and premiered at the High Level Conference. The film featured interviews with a number of ECB Environmental Representatives and Green ECB patrons who highlighted the energy-efficient features of the Main Building and the activities carried out under the Green ECB initiative. It has since been

added to the ECB's environmental protection webpage and is available for the wider public to view.

In addition, the ECB has taken part in international environmental initiatives such as the Car-Free Day during European Mobility Week in September 2015 and the WWF's Earth Hour in March 2016.

The Green ECB team has continued to communicate the importance of best environmental practices to internal staff and stakeholders via a number of channels. For example, in August 2015 the Green ECB team held a series of 12 workshops across the ECB's premises aimed at all staff. The main purpose of the workshops was to inform staff about how they can improve the environmental performance of the ECB through their day-to-day work. The workshops also aimed to provide staff with the opportunity to ask questions and discuss and discover more about climate change. These sessions were led by an external business sustainability expert and were attended by nearly 100 staff.





Picture credit: European Central Bank, 2015

For internal communications, the Green ECB team updates and maintains its own dedicated online communication platform on the ECB's internal information management system to provide information on environmental matters. This platform has been extremely useful in promoting environmentally friendly initiatives via blog posts or wikis on topics such as the ECB staff "Job Ticket" – an initiative that offers subsidised travel on public transport – or the environmental aspects of the Main Building.

The Green ECB team has also collaborated with Directorate General Communications on a regular basis to provide staff with topical information and notify them of upcoming environment-related events in the Frankfurt area, and to promote Green ECB activities.

Environmental management is a topic included in the induction sessions for new staff joining the organisation. In addition to the information provided in the induction sessions, new staff members also receive an email highlighting what they can do to contribute to a greener ECB. In 2015 over 1,000 Green ECB welcome emails were sent to newcomers.

At the same time service providers' collaboration is crucial for allowing staff to further reduce their impact on the environment at work. Internal environmental verifications with most of the major external service providers have been carried out to assess their impacts and to promote

collaboration on improving the ECB's environmental performance, for example, on topics related to the storing and handling of hazardous substances. The external service providers verified in 2015 were among those identified as having a more significant environmental impact. These assessments will be continued and opportunities to reduce impacts will be identified.

The medical insurance provider continued to offer and promote an online claiming service and online settlement notes, gradually replacing the paper-based alternative. In 2015 52% of all claims were registered online, i.e. 20% more than the year before. By using the online claiming service, ECB staff saved approximately 19,000 sheets of paper in 2015.

Finally, Green ECB maintained its involvement in the Eurotower relocation by taking part in information sessions and contributing to the welcome guide given to staff. Through this engagement, the Green ECB team was able to highlight to staff the new environmentally friendly features of the Eurotower which resulted from the refurbishment.

5 Environmental aspects and impact of the ECB's activities

The ECB monitors the environmental aspects of its activities and evaluates its impact on the environment at annual intervals to ensure legal compliance, avoid environmental risks and minimise its footprint.

The Green ECB team monitors the environmental aspects and the impact of operating and maintaining the ECB's premises, e.g. energy, emissions, waste, water and waste water, etc. In addition, the consumption of natural resources and the use of cleaning materials are tracked. The environmental performance of service providers and procured goods and services is also considered. Other aspects and impacts associated with the ECB's activities, such as business and conference travel, staff commuting to work and employee awareness are included in the monitoring process.

All data regarding aspects and impacts are collected in an environmental inventory. The solid data, and more importantly their comparison over the years, are essential for assessing, planning and monitoring environmental aspects, impacts and, subsequently, environmental performance. This evaluation serves as a basis for developing new environmental objectives and measures for the environmental management programme (EMP).

In 2007 the ECB's environmental aspects were identified for the first time. These aspects are reviewed annually to reflect the changes in the organisation and its activities. The aspects of the organisation's activities that have a significant direct or indirect environmental impact were evaluated again to reflect the inclusion of the Main Building in the scope of the reporting and the increase in the number of staff.

Assessment of the environmental aspects

The environmental aspects described in the following chapters have been assigned to the categories listed below to assess their relevance and the need for action:

A = very significant environmental impact with above average need for action

B = medium significant environmental impact with average need for action

C = less significant environmental aspect with low need for action

In addition, the extent to which the various aspects can be influenced either by technical means or through behavioural changes is classified in the following categories:

I = high possibility of either technical or behavioural influence/control

II = medium possibility of either technical or behavioural influence/control

III = low possibility of either technical or behavioural influence/control.

The assessment of the direct and indirect environmental aspects is summarised in the following table. For the indirect environmental aspects, the category "technical influence" is not applicable and so is not evaluated.

Direct environmental aspects					
Aspect		**Site**	**Significance**	**Technical influence**	**Behavioural influence**
Energy consumption	Heating and cooling energy	Main Building	B	II	III
		City centre	B	II	III
	Electricity	Main Building	A	II	II
		City centre	A	II	II
Water consumption	Fresh water	Main Building	B	II	III
		City centre	B	II	III
	Technical water (evaporation and air conditioning)	Main Building	[1]	II	N/A
		City centre	[1]	III	N/A
Material use	Recycled paper	All sites	B		II
	White paper		C		II
	Publications (external printing)		B	I	II
Hazardous substances use	Hazardous substances and cleaning materials used by contractors	All sites	C	II	II
Waste production	Non-hazardous waste	All sites	B		II
	Hazardous waste		B		II
Waste water production	Waste water (direct discharge)	All sites	C	III	III
Emissions	Total CO_2 emissions resulting from heating and cooling	All sites	B	III	
	Total CO_2 emissions resulting from electricity consumption		C	III	

[1] *The technical water impact will be assessed as more detailed data become available.*

Indirect environmental aspects			
Aspect		**Significance**	**Behavioural influence**
Emissions from business travel	Total CO_2 emissions from business travel – rail	C	III
	Total CO_2 emissions from business travel – road	C	II
	Total CO_2 emissions from business travel – air	A	II
Emissions from conference travel	Total CO_2 emissions from conferences participants' travel	A	N/A
Procurement	Environmental performance of procured goods and services	B	I
Staff commute	Emissions owing to staff commuting to the ECB's premises	C	III
Service providers	Environmental performance of catering companies	B	II
	Environmental performance of cleaning companies	B	I
	Environmental performance of technical maintenance companies	A	II
	Environmental performance of other service providers	C	III
Employees	Integration of employees into the EMS	A	I
Biodiversity	Impact on biodiversity	C	III

5.1 ECB-wide overview

Overview of all sites	2013	2014	2015	Change 2015/2014 (%)*
Total workplaces	2,655	3,556	4,158	+16.9%

** Figures may not add up due to rounding.*

Energy	2013	2014	2015	Change 2015/2014 (%)*
In total				
Total electrical energy consumption [MWh]	19,853.9	20,043.9[1]	32,212.3	+60.7%
– of which renewable electrical energy [MWh]	12,666.3	13,839.8[2]	31,796.5	+129.7%
Renewable electrical energy [%]	63.8	69.0[3]	98.7	+29.7 pp**
Total heating and cooling energy consumption [MWh]	22,167.5	21,595.5[4]	17,286.7	-20.0%
Per workplace				
Electrical energy per workplace [kWh/workplace/year]	7,477.9	5,636.7[5]	7,747.4	+37.5%
Heating and cooling energy per workplace [kWh/workplace/year]	8,349.4	6,073.0[6]	4,157.6	-31.5%

** Figures may not add up due to rounding.*
*** A percentage point (p.p.) is the unit of measure for the arithmetic difference between two percentages.*

1 *Based on final settlement of energy costs for 2014, the initially calculated value for the Japan Center was increased from 2,116 MWh to 2,627 MWh. This change has an effect on the total electrical energy consumption in the city centre and requires an update of the reported figure for 2014 (previous reported value: 19,532.7 MWh).*

2 *The certificate for the compensation of CO_2 emissions resulting from electrical energy consumption at the Japan Center was received after the cut-off date for the publication of the environmental statement 2015 so this value has been updated (previous reported value: 11,212.8 MWh).*

3 *The updated values for the Japan Center impact the share of renewable electrical energy in the city centre in 2014 (previous reported value: 57.4%).*

4 *Based on final settlement of energy costs for 2014, the initial value for heating and cooling at the Japan Center had to be updated from 613 MWh to 2,169 MWh. This change has an effect on the total heating and cooling energy consumption in the city centre and requires an update of the reported figures for 2014 (previous reported value: 20,039.4 MWh).*

5 *The update of the electrical energy consumption of the Japan Center has an effect on the reported performance indicator "electrical energy per workplace" (previous reported value: 5,492.9 kWh/workplace/year).*

6 *The update of the value for heating and cooling energy consumption of the Japan Center has an effect on the reported performance indicator "heating and cooling energy per workplace" (previous reported value: 5,635.4 kWh/workplace/year)*

Office paper	2013	2014	2015	Change 2015/2014 (%)*
In total				
Total paper consumption [thousands of sheets of A4 equivalent]	18,466	19,591	19,001	-3.0%
Per workplace				
Paper consumption per workplace [sheets of A4 equivalent/workplace/year]	6,955	5,509	4,570	-17.0%

** Figures may not add up due to rounding.*

Water	2013	2014	2015	Change 2015/2014 (%)*
In total				
Total fresh water [m^3]	65,390.0	74,520.6	97,906.0	+31.4%
Per workplace				
Total fresh water per workplace [m^3/workplace/year]	24.6	21.0	23.5	+12.4%

** Figures may not add up due to rounding.*

Waste	2013	2014	2015	Change 2015/2014 (%)*
In total				
Total non-hazardous waste [tonnes]	454.6	501.2	520.7	+3.9%
Total hazardous waste (used batteries and fluorescent tubes) [tonnes]	1.9	0.3	0.4	+19.1%
Per workplace				
Total non-hazardous waste per workplace [kg/workplace/year]	171.2	141.0	125.2	-11.2%
Total hazardous waste per workplace [kg/workplace/year]	0.72	0.08	0.09	+1.88%

** Figures may not add up due to rounding.*

5.2 Energy efficiency

The energy objective for 2015 was to maintain a stable consumption of electrical energy per workplace and, if possible, achieve a moderate reduction compared with 2013. However, the electrical energy consumption per workplace for all buildings increased slightly by 3.6% between 2013 and 2015.

Total electrical energy consumption for the ECB's premises in the city centre fell by 48.9% from 2014 to 2015 because the Eurotower and the Eurotheum were outside the scope of the EMS for most of 2015. However, total electrical energy consumption for all ECB premises including the Main Building increased significantly by 60.7% owing to (1) the start of operations at the Main Building, accounting for more than half of the total electrical energy consumption of the ECB's premises; and (2) an overall increase in ECB workplaces by 16.9%. The consumption data for the Main Building, however, are not representative of a business-as-usual mode of operation, as a significant amount of tests and adjustments have to be carried out to set up the appropriate working parameters of technical equipment and installations in the building. The consumption data of the Main Building are expected to decrease in the coming years when an optimised mode of operation is fully implemented.

The share of renewable electrical energy increased by 26.9 percentage points in the city centre in 2015. Since 2009 electrical energy for the former Commerzbank building has been supplied entirely from renewable sources, without creating any carbon dioxide emissions. Electrical energy for the Japan Center has been 100% renewable since 2014. All electrical energy supplied to the Main Building has been renewable since the beginning of the construction phase. In 2015 the total share of renewable electrical energy for all ECB premises, including the Main Building, was 98.7% and it increased by 29.7 percentage points compared with 2014.

Heating and cooling energy consumption in the city centre decreased significantly (-66.7%) from 2014 to 2015. This decrease is mainly due to the relocation activities: taking the Eurotower out of the reporting scope and the Eurotheum being unoccupied for most of the year. Although the Main Building was added to the scope of the EMS in 2015, ECB-wide heating and cooling energy consumption decreased by 20.0%. However, as mentioned above, consumption data for the Main Building in 2015 are not regarded as fully representative. In addition, it is planned that the Eurotower will be included in the scope of the EMS reporting again as of 2016, after the completion of the refurbishment works.

In 2015 the core indicator "electrical energy consumption per workplace" for the city centre increased by 17.6% compared with 2014. As the total electrical energy consumption (-48.9%) did not decrease proportionally with the amount of workplaces in the city centre (-56.5%), the increase in this indicator probably reflects the base load of electrical energy consumption of the buildings. The indicator "heating and cooling energy per workplace" in the city centre decreased by 23.3% in 2015. Energy consumption for electricity, heating, ventilation and cooling of the external data centre space decreased by 13.4%. There are several potential reasons for the decrease, e.g. the partial transfer of data centre capacity to the Main Building and the implementation of an EMS by the owner.

Energy: City Centre	2013	2014	2015	Change 2015/2014 (%)*
In total				
Total electrical energy consumption [MWh]	19,853.9	20,043.9	10,249.2	-48.9%
– of which renewable electrical energy [MWh]	12,666.3	13,839.8	9,833.4	-28.9%
Renewable electrical energy [%]	63.8	69.0	95.9	+26.9 pp**
Production of electrical energy [MWh]	3,253.5	4,107.7	-[1]	-
Total heating and cooling energy consumption [MWh]	22,167.5	21,595.5	7,199.0	-66.7%
Electrical energy, heating, ventilation and cooling of external data centre space [MWh]	5,246.2	6,264.9	5,426.4	-13.4%
Per workplace				
Electrical energy consumption per workplace [kWh/workplace/year]	7,477.9	5,636.7	6,630.9	+17.6%
Heating and cooling energy per workplace [kWh/workplace/year]	8,349.4	6,073.0	4,657.5	-23.3%

** Figures may not add up due to rounding.*
*** A percentage point (p.p.) is the unit of measure for the arithmetic difference between two percentages.*

[1] *Production of electrical energy currently applies only to the Eurotower, which was outside the scope of the EMS in 2015.*

Energy: Main Building	2015
In total	
Total electrical energy consumption [MWh]	21,963.1
– of which renewable electrical energy [MWh]	21,963.1
Renewable electrical energy [%]	100
Total heating and cooling energy [MWh]	10,087.8
Process energy: natural gas for cooking [MWh]	293.0
Per workplace	
Electrical energy per workplace [kWh/workplace/year]	8,408.0[1]
Heating and cooling energy per workplace [kWh/workplace/year]	3,861.8
Process energy per workplace [kWh/workplace/year]	112.2

[1] *In contrast to the city centre, electrical energy data for the Main Building include energy consumption of the internal data centre and the IT systems.*

5.3 Material efficiency

5.3.1 Publications

With respect to official publications, the environmental objective for 2015 was to keep the paper used for publications at the same level as in 2013. Having achieved significant decreases in paper use for official publications already in previous years, in 2015 the figure dropped again significantly by 42.0% compared with 2014 and 54.6% compared with 2013. This reduction follows the Governing Council's decision in 2013 to end large-scale printing of the ECB's Annual Report and to reduce the print run for all of the ECB's official publications.[5] It also reflects the decision made in 2014 to stop printing hard copies of ECB official publications. In line with these developments, the ECB's digital communication strategy supports the transition to digital means of communication by making official publications available in electronic format, e.g. web PDF, e-PUB and HTML. Additionally, the design of the ECB's publications has been updated to facilitate the move away from printed copies and also facilitate online usage on handheld devices.

As of 2016 it is expected that the paper consumption for official publications will be largely included in the office paper consumption figures, as it is currently planned that printing for official publications will be done in-house.

Over the past four years the ECB has used a number of tools to communicate information about the Europa series of euro banknotes, including films, educational campaigns, and a dedicated currency website with an interface that is translated into all EU languages, a smartphone app and online games. In 2015 the ECB won two awards at the Excellence in Currency Awards, which are handed out every two years by the International Association of Currency Affairs, for its innovation in the area of cash communication. These awards were for two of the five categories, namely "Best Educational Programme" and "Best Currency Website". Between 2014 and 2015 the ECB launched new websites for central banking and European banking supervision to allow users to navigate smoothly through a range of content types and formats. Both websites have adopted the best practices in responsive design and are tailored for a mobile audience. In recognition of its efforts, the ECB won the 2016 Annual Central Bank Award in the category of "Website of the Year".

Publications	2013	2014	2015	Change 2015/2014 (%)*
ECB publications (white paper and FSC mixed paper) [tonnes]	241.4	189.1	109.7	-42.0

** Figures may not add up due to rounding.*

5.3.2 Office paper

The environmental objective for 2015 was to reduce office paper consumption per workplace by 5% compared with 2013. This objective was achieved: per workplace consumption was reduced by 34.3% compared with 2013.

5 The production of hard copies was adjusted to correspond to the number of recipients who subscribed online.

Office paper	2013	2014	2015	Change 2015/2014 (%)*
In total				
Total paper consumption for all ECB premises [thousands of sheets of A4 equivalent]	18,466	19,591	19,001	-3.0%
Certified paper with paper size A4 and A3 [thousands of sheets of A4 equivalent]	211	291	357	+22.6%
Certified paper with paper size larger than A3 [thousands of sheets of A4 equivalent]	-	-	444	-
Recycled paper (100% recycled) [thousands of sheets of A4 equivalent]	18,255	19,300	18,200	-5.7%
Share of recycled paper [%]	98.9	98.5	95.8	-2.7 pp**
Per workplace				
Office paper consumption per workplace [sheets of A4 equivalent/workplace/year]	6,955	5,509	4,570	-17.0%

** Figures may not add up due to rounding.*
*** A percentage point (p.p.) is the unit of measure for the arithmetic difference between two percentages.*

Although the number of workplaces increased by 16.9% from 2014 to 2015, the total ECB internal paper consumption decreased by 3.0%. As a result, office paper consumption per workplace decreased by 17.0% last year, reflecting both the decrease in overall paper consumption and the increase in workplaces.

All the paper used internally at the ECB generally has multiple environmental certifications, such as the Blue Angel, the EU-Ecolabel, CO_2-neutral white paper, FSC or ISO 14001 for the production facilities. The consumption of certified white paper with paper sizes A4 and A3 increased by 22.6% in 2015. This increase is because more ECB publications have been printed in-house since 2015. In 2015 the use of a certified paper larger than A3 was recorded for the first time. This special paper was mainly used for building plans.

Efforts to reduce the number of single office printers will continue in the coming years, with an expected positive impact on paper and energy consumption. The aim is to further encourage staff to use multifunctional devices installed on each floor as they prevent unnecessary printing by printing only on demand and allowing users to change or cancel jobs in their printing queues.

5.3.3 Office supplies

At the end of 2015 out of approximately 350 stationery articles offered in the office supplies catalogue, 125 were classified as "Eco Easy" (with the Easy on the Planet label), amounting to 35.7% of all stationery items. The objective is to continuously improve the procurement process and increasingly include environmental criteria in order to further increase the share of environmentally friendly office supplies.

In addition to the stationery items, new eco-friendly ECB branded give-aways were distributed to staff in 2015, e.g. FSC certified paper bags, which replaced the former plastic bags. Efforts will continue in 2016 to extend the range of environmentally friendly ECB give-aways.

Office supplies	2013	2014	2015	Change 2015/2014 (pp)*
Share of eco-friendly articles in the catalogue [%]	17.5	30.5	35.7	+5.2

** A percentage point (pp) is the arithmetical difference between two percentages. Figures may not add up due to rounding.*

The objective for 2016 is to increase the share of eco-friendly stationery to 36% of all items in the catalogue. Additionally, it is planned to implement a collection scheme for re-fillable stationery to encourage re-use.

5.3.4 Cleaning agents

Between 2014 and 2015 the use of cleaning materials in the city centre decreased by 5.3%. This decrease is due to the total reduction of rented space and workplaces in the city centre. Only a small number of the cleaning agents used on the premises in the city centre contain hazardous substances.

Due to post-construction cleaning, an unusually large amount of cleaning agents was recorded in the Main Building for 2015. The consumption of cleaning agents is expected to gradually decrease and stabilise in the coming years based on their usage in day-to-day cleaning. Cleaning agents on the ECB premises are used by the ECB's contractors. All cleaning staff working for the service provider have been trained in the handling and correct dosage of cleaning products.

Cleaning agents: city centre	2013	2014	2015	Change 2015/2014 (%)*
Cleaning agents [tonnes]	1.1	1.9	1.8	-5.3

** Figures may not add up due to rounding.*

Cleaning agents: Main Building	2015	Change 2015/2014 (%)*
Cleaning agents [tonnes]	11.1	N/A

** Figures may not add up due to rounding.*

5.4 Chemicals for water treatment and cooling agents

5.4.1 Water treatment

Chemicals are used to treat fresh water and to soften the water in the buildings. The equipment and amount of chemicals used are routinely checked in accordance with official regulations. In 2015 7.2 tonnes of chemicals were used for water treatment in the city centre. The increase of 54.4% compared with 2014 is mainly due to a higher consumption of salt, since the humidifier system in one building needed to run for almost the entire year because of specific medically-related user requirements.

5.4.2 Cooling agents

Cooling systems for air conditioning in the buildings contain cooling agents, such as tetrafluoroethane (R134a) or a mixture of difluoromethane and pentafluoroethane (R410a). All of these agents are greenhouse gases that have no significant ozone depletion potential[6], but do have significant global warming potential. In 2015 no cooling agent needed to be refilled in the cooling systems. The significant variation in the amounts recorded from year to year is due to the different technological requirements of the cooling equipment and maintenance work being performed which involved cooling agents being used to refill the systems.

Hazardous substances: city centre	2013	2014	2015	Change 2015/2014 (%)*
Chemicals for water treatment [tonnes]	6.28	4.66	7.2	+54.4
Cooling agents [kg]	18.2	5	0	-100.0

** Figures may not add up due to rounding.*

Hazardous substances: Main Building	2015	Change 2015/2014 (%)*
Chemicals for water treatment [tonnes]	2.72	N/A
Cooling agents [kg]	0	N/A

** Figures may not add up due to rounding.*

5.5 Water and waste water

The table below shows the data for all technical and non-technical fresh water used on the ECB's premises in the city centre. Non-technical water comprises the water for sanitary facilities, kitchenettes and the canteen. Waste water is not directly measured, but is assumed to be equal to non-technical fresh water consumption. All waste water is discharged into the public sewer.

6 "Ozone depletion potential" refers to the effect of gases on the ozone layer.

Fresh water consumption in the city centre buildings declined significantly by 73.2% as the Eurotower and the Eurotheum were outside the scope of the EMS throughout most of 2015. The same applies to technical fresh water consumption. The decrease in technical fresh water consumption (i.e. -91.0%) is even more marked given that the Eurotower and the Eurotheum accounted for the biggest share of fresh water consumption in the city centre. It is expected that once the Eurotower is included in the scope of the EMS again, water consumption will increase and stabilise again. The Japan Center does not have any cooling towers and so evaporation does not occur in this building.

Water: city centre	**2013**	**2014**	**2015**	**Change** 2015/2014 (%)*
In total				
Total fresh water [m^3]	65,390.0	74,520.6	19,991.0	-73.2
Technical fresh water (building) [m^3]	20,085.2	18,446.2	1,661.6	-91.0
Non-technical fresh water (sanitary facilities, kitchenettes, canteen) [m^3]	43,557.3	56,074.4	18,329.4	-67.3
Waste water [m^3]	43,557.3	56,074.4	18,329.4	-67.3
Per workplace				
Non-technical fresh water per workplace (sanitary facilities, kitchenettes, canteen) [m^3/workplace/year]	16.4	15.8	11.9	-24.8
Total fresh water per workplace [m^3/workplace/year]	24.6	21.0	12.9	-38.3

** Figures may not add up due to rounding.*

Non-technical fresh water consumption has the highest potential to be influenced by staff. The key indicator "non-technical fresh water consumption per workplace" decreased significantly by 24.8% compared with 2014, presumably owing to increased staff awareness and the success of campaigns encouraging them to be more environmentally friendly in the office. Similarly, as the Eurotower was outside the scope of the EMS in 2015, total non-technical fresh water consumption decreased, and so did the core indicator.

The following table illustrates the fresh water consumption of the Main Building. The breakdown between "technical fresh water" and "non-technical fresh water" will be available as of 2016. Owing to a lack of precise data on non-technical fresh water consumption, the amount of waste water is assumed to be equal to the fresh water consumption. However, this does not allow for the fact that a high proportion of fresh water consumption was due to the regular watering of the parkland area around the Main Building during summer 2015.

Water: Main Building	2015
In total	
Total fresh water [m^3]	77,915.0
Waste water [m^3]	77,915.0
Per workplace	
Total fresh water per workplace [m^3/workplace/year]	29.8[1]

[1] *This figure is not considered representative for workplace consumption at the Main Building, as it also includes water used for irrigation of the parkland area while it is becoming established, a phase in which it is recognised that a higher, one-off consumption of water is required. In addition, due to the finalisation of the construction works at the Main Building, a higher consumption of water was registered.*

5.6 Waste and recycling

The objective for the end of 2015 of establishing baselines for waste and recycling in the Main Building has been achieved.

In 2015 total waste generation in the city centre sharply decreased since the Eurotower and the Eurotheum were not (fully) occupied. Moreover, unrestricted paper and cardboard waste, residual waste and packaging waste at the former Commerzbank building are collected centrally and reported entirely by Commerzbank AG. Residual waste generation in the city centre decreased by 99.4% because a major proportion of the residual waste in the Japan Center was redefined as recyclable packaging waste as of 2015.

Residual waste for all ECB premises decreased by 18.5% in 2015 compared with 2014. The amount of confidential paper waste also decreased by 57.7% in 2015.[7] This decrease had been expected since confidential paper waste had been particularly high in 2014 owing to several "spring cleaning" campaigns in preparation for the move to the Main Building. Compared with 2013, the generation of confidential paper waste declined by 11.6%. There was construction and demolition waste in 2015 owing to ongoing work at the Main Building. It can be assumed that this was a one-off effect, despite the fact that ongoing re-fitting works and layout changes will continue.

Electronic waste and hazardous waste (batteries and fluorescent tubes) are collected and reported centrally for all ECB premises. Both figures increased in 2015 compared with 2014, with hazardous waste increasing by 19.1% (mainly because more fluorescent tubes were disposed of), and electronic waste increasing by 103.0%. For electronic waste, a significant one-off decrease had occurred in 2014 as most of the electronic equipment that had been removed from premises before the relocation to the Main Building was not entirely decommissioned but instead stored

[7] Confidential paper waste increased by 109.1% from 2013 to 2014 owing to the clean-up activities related to the move to the Main Building.

for later re-use or recycling. When comparing the amount of electronic waste in 2015 with the amount in 2013, there was an increase of 26.0%.

Waste: city centre	2013	2014	2015	Change 2015/2014 (%)*
In total				
Paper and cardboard waste (unrestricted), recycled [tonnes]	111.3	101.3[1]	48.8	-51.9
Confidential paper waste, recycled [tonnes]	109.8	229.7	36.0	-84.3
Residual waste, incinerated/combusted waste [tonnes]	199.0	148.8	0.82	-99.4
Packaging waste [tonnes]	-	-	82.2	-
Per workplace				
Paper and cardboard waste per workplace (unrestricted) [kg/workplace/year][2]	41.9	39.3[3]	55.8	+42.0
Confidential paper waste per workplace [kg/workplace/year]	41.4	64.6[4]	23.26	-64.0
Residual waste per workplace [kg/workplace/year][5]	74.9	57.7	0.94	-98.4
Packaging waste per workplace [kg/workplace/year][5]	-	-	94.0	-

** Figures may not add up due to rounding.*

1 *As it was initially foreseen that space in the Japan Center would only be rented on an interim basis, paper and cardboard waste for the Japan Center was not reported in 2014. The figures have been adjusted ex post (previous reported value: 87.7 kg/workplace/year).*

2 *As unrestricted paper and cardboard waste, residual waste and packaging waste collected in the former Commerzbank building has been recorded and reported by the landlord since 2015, the respective indicators do not take into consideration the workplaces located in that building.*

3 *Figure has been updated compared with Environmental Statement 2015 (previous reported value: 24.7 kg/workplace/year).*

4 *Figure has been updated compared with Environmental Statement 2015 (previous reported value: 84.5 kg/workplace/year).*

5 *As unrestricted paper and cardboard waste, residual waste and packaging waste collected in the former Commerzbank building has been recorded and reported by the landlord since 2015, the respective indicators do not take into consideration the workplaces located in that building.*

Waste: Main Building	2015
In total	
Paper and cardboard waste (unrestricted), recycled [tonnes]	66.3
Confidential paper waste, recycled [tonnes]	61.1
Residual waste, incinerated waste [tonnes]	120.5
Packaging waste [tonnes]	61.6

Per workplace	
Paper and cardboard waste per workplace (unrestricted) [kg/workplace/year]	25.4
Confidential paper waste per workplace [kg/workplace/year]	23.4
Residual waste per workplace [kg/workplace/year]	46.1
Packaging waste per workplace [kg/workplace/year]	23.6

Waste collected centrally	**2013**	**2014**	**2015**	**Change** 2015/2014 (%)*
Electronic waste, recycled [tonnes]	34.5	21.4	43.5	+103.0
Hazardous waste (used batteries and fluorescent tubes) [tonnes]	1.9	0.3	0.4	+19.1

** Figures may not add up due to rounding.*

5.7 Biodiversity

Office work at the ECB's premises has a limited negative impact on biodiversity; an impact which occurs mainly owing to the land use and soil sealing. At the same time, the ECB has taken the opportunity to contribute positively to biodiversity by creating a complex, thorough and well-planned landscape concept for the area surrounding the Main Building. It is a holistic concept of urban regeneration and ecosystem restoration, biodiversity conservation and integration of the historical heritage of the former Frankfurt Grossmarkthalle. The premises were built on the grounds of this former wholesale market in what was an industrial area to the east of Frankfurt. The site has been completely renovated and turned into a green area with all manner of local flora and fauna. The landscape incorporates the Grossmarkthalle, the new high-rise and essential functional equipment and structures without losing its character as an open parkland area. The security features are also embedded in layers of the parks so that, insofar as possible, the site is not perceived as an enclosed space. The parkland area is planted with more than 700 trees of about 25 different species. Most of these trees are deciduous, enabling people to experience the different seasons. The design for the open space evokes the natural contours of the river Main, picking up on typical elements of the flood plain and transforming them into a diversified park landscape. The vegetation both enhances and questions the impression of a river landscape with a combination of typical riverside plant life and exotic plants that seem unusual in such a habitat. Together with the parks in the surrounding area, the landscape around the Main Building contributes to the creation of a "green lung" for the city of Frankfurt.

The total area of the Main Building comprises approximately 119 hectares of which about 46 hectares (39%) are sealed and 73 hectares (61%) are unsealed surface area. Large green areas and water-permeable path materials allow rainwater to infiltrate into the ground, minimising the

amount of rainwater discharged into the sewerage system. Furthermore, rainwater is harvested from the roof of the Grossmarkthalle into a storage container and is used for the irrigation of the planted areas and for flushing the lavatories. Thus, the area that effectively discharges into the sewerage is reduced to approximately 30 hectares (26% of the total area).

Since Frankfurt city centre is densely built-up, there is no opportunity to create infiltration areas around the premises located there.

Picture credit: Robert Metsch

Picture credit: Vogt Landscape Architects

5.8 Banknotes

Since 2002 euro banknotes have been produced jointly by the NCBs of the euro area. At the end of 2015 there were 18.9 billion euro banknotes in circulation. Each NCB is responsible for a proportion of the total annual production in one or more denominations.

The ECB has the exclusive right to authorise the issuance of banknotes within the euro area and it seeks to promote good environmental management and minimise the risks to the health and safety of the general public and the workers involved in the production of euro banknotes. When a manufacturer applies to perform a euro items activity, it must provide the ECB with copies of the ISO 9001, ISO 14001 and OHSAS 18001 certificates issued by the competent certification authorities. These certificates confirm that the manufacturer conforms to the relevant standards at the relevant manufacturing site for the planned euro items activity.

Directorate Banknotes is taking measures to minimise the impact of the production of euro banknotes on the environment. The Directorate monitors manufacturers' compliance with the ISO 14001 standard and the impact caused by the production processes of the euro banknotes and their main raw materials. Furthermore, the promotion of initiatives to reduce environmental impacts of the production of euro banknotes and being alert to new environmental concerns raised by the public are also key functions of Directorate Banknotes.

Cotton is the main raw material used to produce banknotes. In 2015 approximately 6,000 tonnes of cotton waste was used in this process. The ECB asks that an increasing amount of this cotton waste should be from a sustainable origin, in ecological and social terms.

Detailed information on the environmental impact of euro banknotes is provided on the ECB's website (in "The €uro" section).

5.9 Green procurement

The environmental objective for 2015 was to achieve a 10% increase in the number of procurements that included environmental considerations compared with 2013. In 2015 a total of 36 procurements with environmental considerations were completed compared with 19 in 2013, an increase of 89.5% which far exceeded the EMP objective. One of the main reasons for this large increase was the one-off effect of the creation of European banking supervision which required tendering for an above average number of environmentally relevant products and services such as catering and cleaning.

Throughout 2015 the ECB continued to offer in-house centralised procurement training with green procurement aspects incorporated into the respective standard training modules to encourage widespread use of the Sustainable Procurement Guideline. In February 2016 the Executive Board adopted the new ECB Decision laying down the rules on procurement. The new procurement rules, which entered into force in April 2016, are in line with recent legislation and jurisprudence at the EU level and also take into account experience with the ECB's previous rules. Related internal rules were adapted to reflect the increasing emphasis placed on integrating environmental considerations into procurement procedures and processes.

Given the relevance of public procurement to improving the environmental performance of organisations, a new objective has been set for the coming validation cycle. The objective for 2018 is to increase environmental criteria in public tenders by 25% compared with 2013.

5.10 Business travel

The environmental impact of business travel results from resource (fuel) consumption and CO_2 emissions. Direct contact and the exchange of information with NCBs and third parties are key components of the ECB's core business and these activities require a certain amount of travel. Business travel accounts for about 24.7% of the ECB's total carbon emissions. Whenever possible, business trips are substituted by telephone and video conferencing. Small-scale video conference solutions have been developed and tools for instant messaging and secure teleconferences were launched in early 2015, with the latter also expected to be used with external parties in the future. The ECB's Business Practice Handbook also requires all staff to only travel by plane if alternative means of travel such as by train or car would exceed four hours. Furthermore, the ECB does not provide company cars to staff. In the future a strategy will be developed for the compensation of carbon emissions stemming from business travel.

6 CO_2 emissions in 2015

The ECB's CO_2 emissions are calculated on the basis of the environmental inventory figures. Emissions are subdivided into scopes 1, 2 and 3 according to the Greenhouse Gas Protocol.[8]

Scope 2 emissions arise from the consumption of electrical energy and energy for heating and cooling purposes. Scope 3 emissions result from the use of office paper and from ECB publications, cooling agents used at the ECB's premises, travel of external participants to ECB conferences and special events, staff business travel and staff commuting to and from work. Direct CO_2 emissions (Scope 1), such as those resulting from the consumption of process energy, consumption of fuel by the nine ECB-owned cars and from emergency power units, were not taken into account since they are fairly insignificant, i.e. constituting only 1.3% of the total emissions. Emissions of sulphur dioxide, nitrogen oxides and particulate matter are also negligible, as they only result from the use of ECB-owned cars and test runs of emergency power units.

In 2015 many of the CO_2 emission conversion factors were updated, based on the latest figures provided by the respective sources.[9] These updates have influenced the final carbon emissions figures for both the specific aspects and the total carbon footprint of the ECB, especially as the aspect-specific conversion factors have registered improvements compared with previous years, as outlined below.

[8] The calculation of CO2 emissions is in line with the standards laid down in the Greenhouse Gas Protocol, which focuses on the accounting and reporting of greenhouse gas emissions. It is the most widely used international accounting tool for government and business leaders wanting to understand, quantify and manage greenhouse gas emissions (www.ghgprotocol.org).

[9] Conversion factors are provided by the UK government's Department for Environment, Food and Rural Affairs (DEFRA) and the Department of Energy and Climate Change (DECC), the German Ministry of Environment (Umweltbundesamt), the ECB's energy supplier, Deutsche Bahn and the Institute for Energy and Environmental Research (IFEU Institute).

Conversion factor updated	Source	Change 2015/2014 (%)
Electricity	Direct supplier	-19.9
Natural gas	GEMIS database, version 4.93	+2.4
Public transport	TREMOD 5.63, German Ministry of Environment	-4.1
Rail travel, short distance		-6.9
Rail travel, long distance		-4.7
Air travel, domestic	2015 Guidelines – DEFRA/DECC's Greenhouse Gas Conversion Factors for Company Reporting	+1.7
Air travel, short haul		+2.1
Air travel, long haul		-5.8
Large car (diesel, 2.0-litre engine and above)		-2.3

The environmental objective for 2015 was to maintain emissions per workplace at the level recorded in 2013. The objective was exceeded by a decrease of 74.6% in 2015 compared with 2013. However, with the Eurotower re-entering the scope of emissions recording in 2016, there is a possibility that emissions will increase next year.

The total energy consumption for heating and cooling decreased by 20.0% between 2014 and 2015. In combination with a shift from gas-based heating to (less CO_2 intensive) district heating, overall CO_2 emissions from heating and cooling decreased by 28.3% from 2014 to 2015. CO_2 emissions resulting from electrical energy consumption decreased even more, by 94.1%, owing to a strong increase in renewable energy supply (by 29.7 percentage points; see also Chapter 5.1). All ECB premises used 100% renewable electrical energy in 2015, except for the Eurotheum, where renewable energy made up 46.5% of total electrical energy. While emissions caused by the operation of ECB premises decreased significantly in 2015, CO_2 emissions arising from business travel increased by 59.8%, especially as a result of the new activities and responsibilities related to the implementation of European banking supervision.

A regular shuttle bus connecting the Main Building with the premises in the city centre has been launched and its corresponding emissions have been added to the overall business travel CO_2 emissions. Since April 2013 Deutsche Bahn has ensured that its corporate customers travel with 100% green energy on long-distance trips within Germany, including the electricity provided on board for laptops and smartphones. Business trips with Deutsche Bahn in 2015, amounting to over 1,400,000 passenger kilometres, were certified to be CO_2-free.

CO_2 emissions on the basis of the Greenhouse Gas Protocol [tonnes of CO_2 equivalent]	**2013**	**2014**	**2015**	**Change** 2015/2014 (%)*
Direct emissions – Scope 1	**no data**	**no data**	**no data**	**-**
Indirect emissions – Scope 2	**7,697.0**	**6,486.7**[1]	**3,064.6**	**-52.8**
Electrical energy consumption at of ECB premises	2,779.2	2,410.3	143.1	-94.1
Heating and cooling of ECB premises	4,917.8	4,076.4[2]	2,921.5	-28.3
Indirect emissions – Scope 3	**7,281.7**	**7,560.9**[3]	**9,710.8**	**+28.4**
Business travel (car, train, plane)	1,942.2	1,974.9	3,156.4	+59.8
Staff commute to work	710.5	756.7	1,388.9	+83.5
Travel of conference participants	4,267.8	4,535.9	4,965.1	+9.5
Office paper and ECB publications	337.2	286.9	200.4	-30.1
Cooling agents used at ECB premises	23.9	6.5[4]	0.0	-100.0
Electrical energy, ventilation and cooling of external data centre space	0	0	0[5]	0
Total CO_2 emissions	**14,978.7**	**14,047.5**[6]	**12,775.4**	**-9.1**

** Figures may not add up due to rounding.*

1 *Figure has been updated compared with the 2015 update of the ECB's environmental statement owing to changes described in chapter 5.1 (previous reported value: 6,120.16 tonnes CO2 equivalent).*
2 *Figure has been updated compared with the 2015 update of the ECB's environmental statement owing to changes described in chapter 5.1 (previous reported value: 3,709.85 tonnes CO2 equivalent).*
3 *Figure has been updated compared with the 2015 update of the ECB's environmental statement (previous reported value: 7,575.20 tonnes CO2 equivalent).*
4 *Figure has been updated compared with the 2015 update of the ECB's environmental statement (previous reported value: 20.9 tonnes CO2 equivalent).*
5 *Since 2013 the external data centre has obtained its electricity from renewable energy sources.*
6 *Figure has been updated compared with the 2015 update of the ECB's environmental statement (previous reported value: 13,695.4 tonnes CO2 equivalent).*

CO_2 emissions per workplace on the basis of the Greenhouse Gas Protocol [kg of CO_2 equivalent]	**2013**	**2014**	**2015**	**Change** 2015/2014 (%)*
Direct emissions – Scope 1 [kg of CO_2 equivalent/workplace/year]	**no data**	**no data**	**no data**	**-**
Indirect emissions – Scope 2 [kg of CO_2 equivalent/workplace/year]	**2,899.1**	**1,824.2**	**737.1**	**-59.6**
Electrical energy consumption at ECB premises [kg of CO_2 equivalent/workplace/year]	1,046.8	677.8	34.4	-94.9

** Figures may not add up due to rounding.*

Heating and cooling of ECB premises [kg of CO_2 equivalent/workplace/year]	1,852.3	1,146.3	702.6	-38.7
Indirect emissions – Scope 3 [kg of CO_2 equivalent/workplace/year]	**2,742.6**	**2,126.2**	**2,335.6**	**+9.8**
Business travel (car, train, plane) [kg of CO_2 equivalent/workplace/year]	731.5	555.4	759.2	+36.7
Staff commute to work [kg of CO_2 equivalent/workplace/year]	267.6	212.8	334.0	+57.0
Travel of conference participants [kg of CO_2 equivalent/workplace/year]	1,607.5	1,275.6	1,194.2	-6.4
Office paper and ECB publications [kg of CO_2 equivalent/workplace/year]	127.0	80.7	48.2	-40.3
Cooling agents used at ECB premises [kg of CO_2 equivalent/workplace/year]	9.0	1.8	0.0	-100
Total CO_2 emissions [kg of CO_2 equivalent/workplace/year]	**5,641.7**	**3,950.4**	**3,072.6**	**-22.2**

CO_2 emissions caused by staff commuting to and from work increased by 83.5% in 2015, owing not only to the increase in staff, but also to an update in the calculation methodology. The basis for the calculation was a new all-staff survey conducted in 2014 before the launch of the Job Ticket, which registered a higher response rate than the initial survey and a different distribution of choices of means of transportation used by staff in their daily commute. In early 2015 a discounted public transport ticket scheme (i.e. the Job Ticket) was made available to staff, not only to encourage a transition towards even more environmentally friendly behaviour with regard to commuting to and from work, but also to support commuting between the different premises. At the end of 2015 about 1,500 users had registered for the Job Ticket initiative.

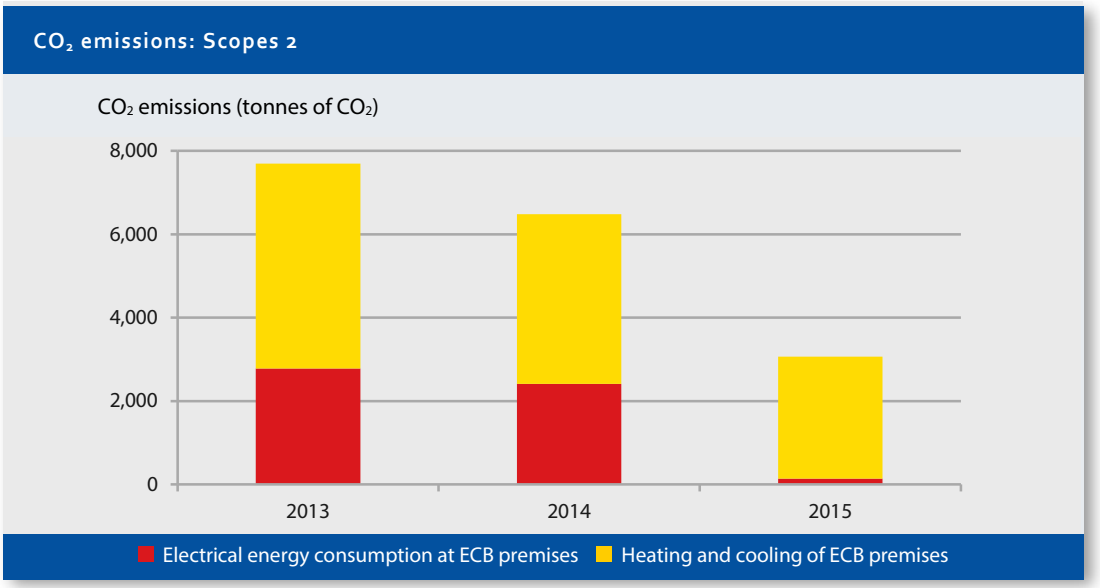
Emissions resulting from participants travelling to the ECB to attend conferences, seminars, high level meetings or events are based on a database of 31,531 entries, representing 33.3% more registered participants than in 2014. These database entries, indicating from where participants had travelled, and an assumption about their means of transportation, were the factors used to calculate the total CO_2 emissions caused by travel of conference participants. It is possible that these emissions may also be accounted for by the conference participants' organisations, resulting in double counting. Overall, CO_2 emissions from the travel of conference participants increased by 9.5% in 2015, which was therefore not in the same proportion as the increase in the total amount of registered participants (33.3%). This disparity is mainly due to a decrease in the CO_2 intensity for the different means of transportation.

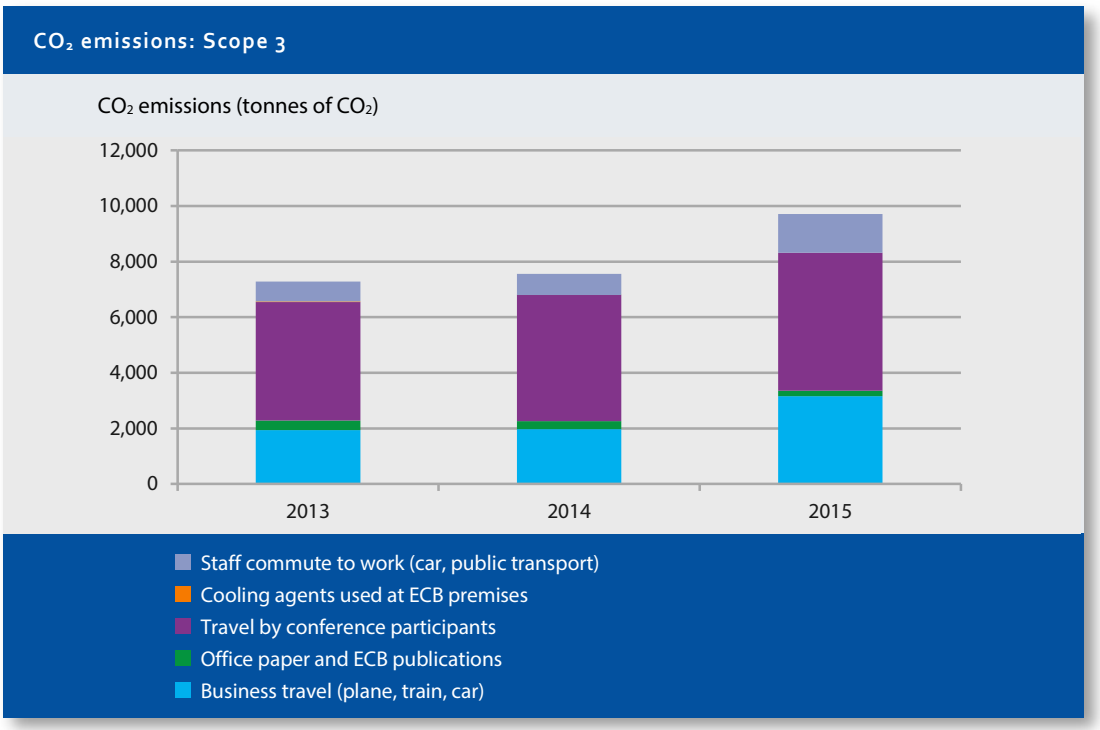
CO_2 emissions resulting from ECB publications and office paper consumption fell by 30.1% in 2015 as the absolute consumption figures decreased as well (see Chapters 5.3.1and 5.3.2).

There is a relatively high degree of variation recorded over the years in the amounts of cooling agents refilled in the air conditioning systems on the ECB's premises. This variation results from the different technological requirements of the cooling equipment and the frequency of

maintenance works performed. In 2015 no cooling agents had to be refilled in the existing premises.

Since 2013 the energy used at the external data centre has been supplied entirely from hydropower and, as a result, there are no associated CO_2 emissions.





7 Environmental performance at the ECB

Numerous important measures are in place to support the ECB's efforts to improve its environmental performance. However, the key to success remains the continued awareness and engagement of all staff working on the premises. The ECB actively engages with and encourages employees and all contractual partners to play a part in the common effort to minimise its environmental impact. At the same time, environmental awareness-raising and behavioural change will continue to be the focus of the ECB's environment-related objectives and measures.

Since the establishment of the EMS, the ECB has not only attempted to reduce its carbon footprint in absolute terms, but has also looked further into new aspects where it could have an impact. With a view to the organisational values, in particular transparency and accountability, which support sharing information with a sense of openness and responsibility, the ECB has continuously increased the scope of reporting and monitoring of its carbon emissions.

7.1 Achievement of environmental objectives and implemented measures in 2014 and 2015

To further improve its environmental performance and in accordance with the objectives adopted by the ECB, an environmental management programme (EMP) containing concrete measures has been formulated. The EMP consists of environmental objectives and supporting measures. It was adopted in accordance with the ECB's environmental framework.

The following table shows the status of environmental objectives as at the end of 2015.

Aspect	Objective	Status
Energy efficiency	Electrical energy consumption per workplace should remain at the level recorded in 2013 or improve moderately.	+3.6 %
Material efficiency	Reduction of office paper consumption by 5% per workplace. Official publications should stay at the same level as in 2013.	Office paper: -34.5%; Official publications: -55%
	Having 30% of environmentally friendly stationery in the catalogue (28% currently).	+34%
Waste	Establish baselines for waste and for recycling in the Main Building by end-2015.	Achieved
Emissions	Individual workplace emissions caused by the operation of the current ECB premises (Main Building, Japan Center and former Commerzbank building) should not exceed the level recorded in 2013.	-74.6%
Green procurement	10% increase in the number of procurements that include environmental considerations.	+89,5% (2013: 19; 2015: 36)
Awareness and outreach	Organise a Green Day at the Main Building in 2015 with the participation of NCBs and EU institutions.	The "20 years of premium environmental management – High Level Conference on EMAS" in November 2015

The following table shows a summary of the status of environmental measures at the end of 2015.

Aspect	Measure	Status	Information
Energy efficiency	Implement remote IT power management system	Dismissed	Owing to the recent installation of highly energy-efficient equipment, the implementation of a remote IT power management system was found to be redundant and in conflict with business requirements.
	Integrate energy-efficiency considerations in the refurbishment of the Eurotower.	Completed	Environmental considerations played an important role in the refurbishment of the Eurotower and a variety of improvements to the technical infrastructure have been made. These improvements include the installation of new combined heat and power plants, energy-efficient sun-shading systems, insulation of the concrete core, new air conditioning systems, more efficient lifts and LED lighting in the offices.
Material efficiency	Introduction of electronic signatures, i.e. for paperless invoicing.	Dismissed	Owing to the complex technical and legal requirements of electronic signatures, this measure was dismissed. E-procurement and public procurement digitalisation being rolled out at the European level is expected to include such measures.
	Reduce the number of office printers per workplace.	In progress	The "Plants for Printers" campaign is still ongoing. Since the relocation to the Main Building at the end of 2014, more than 600 office printers have been removed and stored for re-use or recycling.
Waste	Establish a separate collection of waste at the Main Building, i.e. an extension of organic waste collection in offices.	In progress	A new waste management concept has been developed. Separate collection of packaging waste has been added to the waste collection streams across ECB premises. Further opportunities are currently being assessed.
Emissions	Develop a strategy for defining a policy to compensate for residual CO_2 emissions.	In progress	The ECB is a member of the Inter-institutional Group on Environmental Management (GIME) chaired by the European Commission. One of the GIME activities for the upcoming period is to define a common policy and approach for European institutions regarding offsetting residual CO_2 emissions.

Aspect	Measure	Status	Information
Green procurement	Further develop the environmental management module in the computer-aided facility management system of the Main Building.	In progress	The computer-aided facility management platform is under development; the environmental module will combine and compile data that already exist in the system.
	Inclusion of environmental criteria in the standard procurement templates thus increasing the promotion of the Sustainable Procurement Guideline.	Completed	References to the ECB Sustainable Procurement Guideline have been included in the standard procurement templates, as well as across the procurement training modules. A new draft template on how to reflect environmental criteria in a more standard way was developed and is planned to be piloted for procurement procedures.
	Further development of the organisational rules on procurement to better reflect the ECB's commitment to sustainable procurement.	Completed	The Executive Board adopted the new ECB Decision laying down the rules on procurement. The new procurement rules reflect the increasing emphasis placed on integrating environmental considerations into procurement procedures and processes.
Awareness-raising and staff engagement	The procurement awareness workshop including training on green procurement will be opened up to all ECB business areas involved in procurement activities.	Completed	Awareness-raising sessions have been organised and extended to business areas other than those mainly involved in procurement. Furthermore, the integration of environmental criteria has been included in the standard procurement training provided by the Central Procurement Office.
	Organisation of a Green Day at the Main Building in 2015 with the participation of NCBs and EU institutions.	Completed	The "20 years of premium environmental management – High Level Conference on EMAS" took place at the Main Building in 2015.
	Inclusion of a "sustainable investment" option for ECB staff pensions.	In progress	Considerations for the upcoming tendering process have been provided to the responsible business areas.
	Implementation of a communication campaign to introduce staff to the environmental aspects of the Main Building (e.g. via a green-office guide, floor walks with staff, etc.).	Completed	Staff engagement workshops highlighting environmentally friendly features of the Main Building were held. An online wiki page was set up to act as a guide. An email is being sent to new staff introducing them to the relevant environmental aspects and how they can contribute to improving the ECB's environmental performance. Several guided tours were carried out.

Aspect	Measure	Status	Information
	Foster inter-institutional cooperation on environment-related topics (e.g. carbon emissions, sustainable procurement, etc.).	In progress	The ECB hosted the "20 years of premium environmental management – High Level Conference on EMAS". The Green ECB team was also invited to participate to share experiences and best practices in additional conferences and meetings organised between NCBs and with EU institutions.
	Assessment of the impact of service providers on the organisational footprint and identify opportunities to reduce it.	Completed	Internal environmental verifications with most of the major external service providers have been carried out and will be continued throughout the next EMS cycles.
Travel and commuting	Implement state-of-the-art, real-time communication tools between the ECB's premises and with external parties, e.g. video conferencing (including small-scale solutions), shared screens, etc	In progress	A small-scale video conference and online collaboration system has been implemented. This can be used between ECB staff members and it is intended to extend it to external parties. Tools for instant messaging and secure teleconferences were launched in early 2015, with the latter also being used with external participants.
	Strengthen the teleworking environment.	In progress	Teleworking time was doubled in 2014, to 40 working hours per calendar month.
	Set up a bike-sharing scheme to support environmentally friendly commuting between the premises.	In progress	Opportunities are under further assessment; one pilot was launched in 2015 but entailed a heavy administrative burden.

Follow-up on the recommendations from the European Court of Auditors to the ECB on the management of its carbon footprint

In May 2014 the European Court of Auditors (ECA) published a report on the ECB's management of its carbon footprint. Focusing on the period between 2008 and 2013, the report analysed the ECB's efforts to reduce the negative impact of its administrative operations and concluded by issuing seven recommendations to the ECB. Below are the recommendations issued and further updates on their status since the publication of the ECA's report. The ECB continues its efforts to address the ECA's recommendations.

1. The ECB should continue to reduce CO_2 emissions, and define a policy to compensate for residual CO_2 emissions.
Given the significant increase in business activity owing to European banking supervision, the ECB Management Committee has challenged the policy proposal which included a provision for offsetting residual emissions. Developing a strategy for offsetting has been included as a measure in the EMP 2016-18 and will be undertaken in collaboration with other European organisations facing similar challenges.

2. The calculation of the ECB's carbon footprint should be improved by taking into account the guidance provided in the European Commission's Organisation Environmental Footprint (OEF) method.

The European Commission's OEF method is still subject to pilot testing until the end of 2016. However, the reported development of the method is prioritising rules for those sectors having the highest share of environmental impacts. Public administration is not considered one of the priority sectors. After reviewing the results of the pilot phase, the Commission will consider the possibility of launching an internal pilot phase to develop specific sectorial rules for the calculation and reporting of the environmental footprint of the Commission or similar public administrations. The ECB is monitoring the results of the pilot phase with the aim of integrating it into the calculation of the carbon footprint. In the meantime the ECB has developed a methodology to include staff commuting to work into the calculation of its carbon footprint, which has since been included in its Environmental Statement.

3. The ECB should make sure that high standards in terms of energy performance are applied for the renovation of the Eurotower building.

A section dedicated to environmental considerations and support has been included in the refurbishment contract for the Eurotower. Environmental considerations played an important role in the refurbishment of the Eurotower and a variety of improvements to the technical infrastructure have been made. These improvements include the installation of new combined heat and power plants, energy-efficient sun-shading systems, insulation of the concrete core, new air conditioning systems, more efficient lifts and LED lighting in the offices. As a result, the Eurotower landlord committed to pursuing an environmental certification for the building.

4. As regards activities related to environmental awareness-raising and behavioural change among ECB staff, the EMAS environmental programme should include measurable indicators to assess progress and impact, for example monitoring of the number of staff using public transport for commuting.

The environmental management programme published in the 2014 update of the ECB's environmental statement and the 2015 update of the ECB's environmental statement lists measurable communication and outreach activities. The focus on the formulation of these measures was maintained throughout the development of the EMS and the EMP 2016-18.

5. The ECB should adhere to the European Code of Conduct on Data Centre Energy Efficiency.

The ECB fully supports the objective of the voluntary European Code of Conduct on Data Centre Energy Efficiency "to reduce energy consumption in data centres throughout Europe, thus reducing emissions, limiting global warming and saving money" and will consider applying for Participant status.

6. The ECB should amend its Rules on Procurement in order to better reflect its commitment to sustainable procurement.

In February 2016 the Executive Board adopted the new ECB Decision laying down the rules on procurement. The new procurement rules, which entered into force in April 2016, have been revised in line with recent legislation and jurisprudence at the EU level and also take into account experience with the ECB's previous rules. Related internal rules were adapted to reflect the increasing emphasis placed on integrating environmental considerations into procurement procedures and processes.

7. The ECB should report on achievements in implementing its Sustainable Procurement Guideline in its annual Environmental Statements.

The ECB set itself the objective of at least a 10% increase in green procurement by 2015 and has reported its achievements in each annual environmental statement. The objective was exceeded with an increase of 89.5% in procurement procedures that included environmental aspects, which was mainly due to the one-off effect of the creation of European banking supervision that required tendering for an above average number of environmentally relevant products and services such as catering and cleaning. The Sustainable Procurement Guideline will undergo an update in the upcoming period.

7.2 Long and medium-term objectives and measures

To further improve environmental performance, the environmental management programme has been updated and new objectives and measures have been formulated by the ECB through an internal collaborative process that involves all relevant stakeholders.

The objectives set for the upcoming years are divided into medium and long-term objectives. Long-term objectives have a horizon of 2030 while medium-term objectives and measures have a horizon of 2016-18. Setting long-term objectives is a new feature for the EMP, primarily meant to support the EU's 2030 Framework for climate and energy, but also to provide an appropriate time scale for certain measures to yield the desired results.

The table below contains the environmental management programme which was adopted in accordance with the ECB's environmental framework for long and medium-term objectives and the corresponding measures.

Energy efficiency	
Medium-term objective	**Long-term objective**
Reduction of electricity consumption at the Main Building by 5% by 2018 (baseline: 2015).	Optimisation of energy consumption at ECB premises: reduce total energy consumption per workplace by 20% by 2030 (baseline: 2015).
Measures	
Full integration of the Main Building into the EMS. Main Building: implementation of detailed energy monitoring in various areas, e.g. meeting areas. Main Building: in-depth analysis of available data to develop further improvement measures.	
Improvement of reoccurring duties management by appropriate CAFM[1] tools. Evaluation of adhering to the EU Code of Conduct on Data Centre Energy Efficiency.	
Increase analysis of environmental data for each of the ECB's premises. Main Building: adjustment of operating hours – assess feasibility of automatically switching off lights earlier in the evenings (21:00) and more frequently during weekends.	
Main Building: adjust air-conditioning in the meeting rooms via direct interface with the booking system in the CAFM system. Main Building: install automation of lighting in the Grossmarkthalle to switch it off at night.	
Main Building: reduce the number of lights in the parking area (short term) and replace them with LED lights (long term).	

[1] *Computer-Aided Facility Management*

Emissions	
Medium-term objective	**Long-term objective**
–	Reduction of total CO2 emissions by 10% by 2030 (baseline: 2015).
Measures	
Establish a common compensation strategy for travel emissions in collaboration with European institutions by 2020.	
Increase the use of online collaboration tools to substitute travel wherever feasible and generally promote their use internally.	
Videoconferencing: assess the possibility of increasing the number of videoconferencing rooms and of deploying further secure online tools to facilitate interactions and collaboration with external counterparts.	
Decrease emissions from commuting by: (i) promoting the environmental benefits of teleworking by eligible staff and (ii) continuing to promote the Job Ticket.	
Estimate the environmental impact of (i) teleworking per workday and (ii) the Job Ticket.	
Install charging stations for electric cars inside and outside the Main Building for both employees and visitors.	
Install a "call-a-bike" pool in cooperation with Deutsche Bahn near the ECB Main Building to support environmentally friendly commuting between the premises.	

Material efficiency	
Medium-term objective	**Long-term objective**
Achieving excellence in waste management in all premises by 2018.	
Increase eco-friendly stationery to 36% of all stationery by 2016.	Reduce single printers in offices to a maximum of one printer per 20 workplaces by 2020.
Reduce single printers in offices to a maximum of one office printer per ten workplaces by 2018.	
Measures	
Emphasise the benefits of using the multifunctional devices in a dedicated communication campaign.	
Relaunch the Plants for Printers campaign.	
Develop a comprehensive waste management concept for all buildings.	
Implement a collection scheme for re-fillable stationery.	
Increase waste separation (measured by the decrease in residual waste per workplace).	

Stakeholder involvement	
Medium-term objective	**Long-term objective**
–	Gaining commitment of all NCBs to participate in inter-institutional collaboration on environmental management by 2020.
Measures	
First kick-off meeting on 21 September 2016 and subsequently an annual meeting for the Environmental Network of Central Banks.	

Green procurement	
Medium-term objective	**Long-term objective**
Increase public tenders including environmental criteria by 25% by 2018 (baseline: 2013).	–
Measures	
Revise the Sustainable Procurement Guideline. Develop further training/awareness-raising activities on Green Public Procurement for procurers.	

Awareness-raising and staff engagement	
Medium-term objective	**Long-term objective**
–	Increase environmental awareness of ECB staff.
Measures	
Organise one Green Day per year. Achieve closer integration of newcomers into EMS. Relaunch the Green ECB training for all staff.	
Main Building: communicate the technical features (the Building Automation System) to staff. Develop a concept for environmentally friendly staff events.	

Biodiversity	
Medium-term objective	**Long-term objective**
Evaluation of possibilities for further fostering biodiversity at the ECB.	–
Measures	
Collaborate with the European school and kindergarten at the Main Building. Increase collaboration with local expert groups working on enhancing biodiversity.	

Others	
Medium-term objective	**Long-term objective**
Implementation of dedicated training on the storing and handling of hazardous substances.	–

8 Environmental self-assessment

With more staff joining the ECB and further relocations taking place between premises, 2015 was another year characterised by several changes in and around the ECB. The EMS has taken steps to accommodate these changes and at the same time provide a stable framework for reaching the set objectives and targets. This framework allows for the improvement of environmental performance and increased staff awareness.

Reducing the ECB carbon footprint by 9.1% compared with 2014 is considered a significant achievement for 2015. Furthermore, integrating contractors such as catering and cleaning into the EMS, especially in the Main Building, was an important step towards environmental impact reduction in ECB premises.

Another development in 2015 that will require due consideration in the upcoming period was the further increase in air travel emissions resulting from the enhanced activities related to the mandate of European banking supervision.

Furthermore, to support the ECB's long-term objective of increasing environmental awareness among staff, awareness-raising and staff-engagement activities will be implemented. These activities, among others, will ensure that there is a well-functioning interface between (energy efficient) premises and users and encourage individual contributions to the fulfilment of the ECB's environmental policy.

9 Environmental verifier's declaration

Prof. Dr.-Ing. Jan Uwe Lieback, with EMAS environmental verifier registration number DE-V-0026, accredited and licensed for scopes NACE 64.1 and 84.1, declares to have verified the whole of the European Central Bank (ECB), registration number D-125-00045, at its site at Sonnemannstraße 20, 60314 Frankfurt am Main, Germany (Main Building) and at Kaiserstrasse 29, 60311 Frankfurt am Main, Germany (city centre) as indicated in this environmental statement for 2016.

The European Central Bank meets all requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco management and audit scheme (EMAS).

By signing this declaration, we declare that:

- the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009;
- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment;
- the data and information of the environmental statement of the ECB reflect a reliable, credible and correct image of the organisation's activities within the scopes mentioned in the environmental statement.

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

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

Done at Frankfurt am Main on 03/08/2016

Prof. Dr.-Ing. Jan Uwe Lieback
Environmental Verifier DE-V-0026

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Data Protection Officer – Within the ECB, the Data Protection Officer ensures that the provisions of the above Regulation are applied and advises controllers on fulfilling their obligations (see Article 24 of the Regulation).