Europäisches Patentamt
European Patent Office
Office européen des brevets

Environmental statement 2009

in accordance with Regulation EG 761/2001

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in accordance with Regulation EG 761/2001

EPO Berlin, The Hague, Munich and Vienna

Foreword by the President

The environment plays a big part in the core business of the European Patent Office. Every year, we receive thousands of patent applications for inventions designed to protect the environment and conserve resources. We then carry out a thorough search and examination to ascertain whether the invention really is novel, whether it really constitutes an advance in technology and so, indirectly, also whether it can help to protect the environment.

But just as protecting the environment is a concern for many inventors, so must we as an organisation consider it our duty. We too should strive to use light, heat, electricity, water, transport and consumables sparingly in our work. That is why the European Patent Office has drawn up comprehensive environmental guidelines and committed itself to an environmental management policy which will help us to achieve the objectives set.

We have already taken several measures and are currently extending the scope of others – whether it be separating office waste, using automatic mechanisms for switching off lights and adjusting room temperature or reducing duty travel by using videoconference equipment at all sites. We will soon be taking new measures, for example fitting energy-efficient windows in our Munich headquarters. Our standards are high.

To ensure that our action on the environment can be measured and so compared, we are seeking certification under EMAS (Eco-Management and Audit Scheme), a standard now widely established in Europe. However, in our view, certification will count only if we are awarded it anew after each review. So we see protection of the environment as an ongoing process which cannot be allowed to come to a standstill.

We, at the European Patent Office, have made it our goal to make a lasting contribution to a better environment through our conduct both as individuals and collectively as an organisation. We can only achieve this goal by working together in the coming years.

Alison Brimelow
President
January 2010

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1. The European Patent Office

The mission of the European Patent Office (EPO) is to support innovation, competitiveness and economic growth across Europe through a commitment to high quality and efficient services delivered under the European Patent Convention (EPC). Its task is to grant European patents for inventions on the basis of a centralised procedure for the contracting states to the EPC, which was signed in Munich on 5 October 1973 and entered into force on 7 October 1977.

The EPO is the executive arm of the European Patent Organisation, an intergovernmental body set up under the EPC, whose members are the EPC contracting states. The activities of the Office are supervised by the Organisation's Administrative Council, which is composed of the delegates from the contracting states.

The EPC states currently are Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, the Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, Norway, Poland, Portugal, Romania, San Marino, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom. European patent applications and patents can also be extended at the applicant's request to Albania, Bosnia and Herzegovina, and Serbia.

The EPO was set up with the aim of strengthening co-operation between the countries of Europe in the protection of inventions. This was achieved by adopting the EPC, which makes it possible to obtain patent protection in several or all of the contracting states by filing a single patent application in one of the three official languages of the EPO (English, French and German).

The EPO has its headquarters in Munich, and offices in The Hague, Berlin, Vienna and Brussels. With its workforce of nearly 7 000 staff, the EPO is the second largest European institution.

The following nine sites have been certified in accordance to the environmental management standard EMAS (Eco-Management and Audit Scheme):

- European Patent Office Munich I (Isargebäude), Germany
- European Patent Office Munich II (PschorrHöfe 1-8), Germany
- European Patent Office Munich III (Capitellum), Germany
- European Patent Office Munich IV (Westsite), Germany
- European Patent Office Berlin, Germany
- European Patent Office The Hague I (Main, Shell, Hinge), Netherlands
- European Patent Office The Hague II (Le Croisé), Netherlands
- European Patent Office The Hague III (Rijsvoort), Netherlands
- European Patent Office Vienna, Austria

The President of the EPO, Alison Brimelow, is responsible for the EPO's overall compliance with the requirements of the environmental management system. Lars Hansen, Head of Facility Management Munich/ Berlin, has been appointed as Environmental Management Officer for all EPO sites. Moreover, there are main contact persons for environmental issues at each site who co-operate with the Environmental Management Officer. The directors and supervisors of each department at each site are responsible for the implementation of the environmental management system in their field of accountability. In particular, they are in charge of ensuring that their employees understand and comply with all components of the environmental management system that affect them.

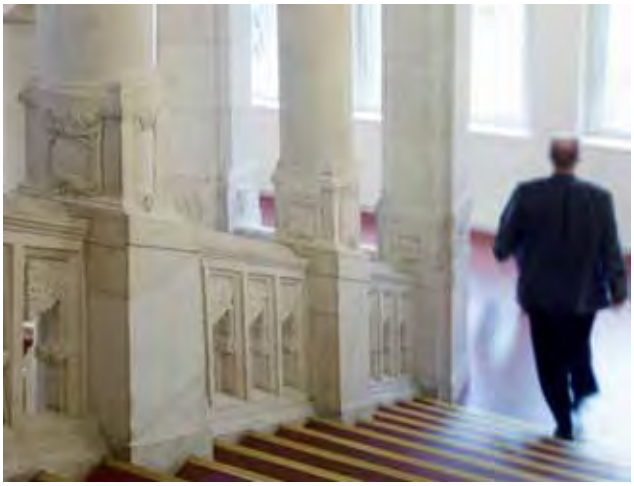
The nine certified sites are presented in the following chapters.

1.1 EPO Berlin

The EPO Berlin is situated in a building that was constructed in the early 20th century, thus possessing an impressive façade and historic structure; however, this also implies certain deficiencies in the insulation and energy efficiency of the premises. Facilities with environmental relevance include a combustion plant, a fuel oil tank, several cooling installations, a photo laboratory, a small storage area for cleaning agents and a kitchen/canteen (operated by an external service provider). No information is available about contamination of the Berlin site. Dangerous waste consists of old batteries and old fluorescent tubes.

Previous Environmental Achievements

Some of the windows have sound insulation. Moreover the heating system has been renewed and is equipped with a new control system and new thermostats.



Sites/buildings	Gross floor area (BGF)	Gross floor area w/o basement (GF)	Workplaces	Status
1 building	18 100 m²	18 093 m²	300	leased

Most relevant environmental law	Relevant facilities/activities
Emission regulations regarding small and medium heating systems (1. BImSchV)	Heating system (light fuel oil)
Waste water regulations and fees	Water discharge into the sewage system
Waste regulations and fees	Recycling/separation/disposal of various types of waste
Building regulations; criteria for renovations/ alterations	Building activities (potential)
Energy efficiency regulations for buildings (EnEV)	Insulation of the building/energy-efficient technologies
Working conditions/Health & Safety	Appropriate risk assessment, fire prevention, restrictions on certain chemical agents

1.2 EPO Munich

The EPO Munich is the largest of all the EPO sites in regard to gross floor area and number of employees. The state of the buildings varies: some are older, such as the Isar building, while more recent ones include PschorrHöfe 7 and 8. The Capitellum and Westsite are rented. Facilities with environmental relevance are primarily situated in the Isar Building. They include a print shop, repair shop and carpenter's shop, a water treatment installation and tanks for acid and lye solutions. Owing to its construction, the Isar building has a high specific heat energy consumption per m^2. Several buildings (e.g. Isar, PschorrHöfe 1-8, Westsite) have an oil and/or grease separator and a kitchen/canteen and dish-washing area.
All the Munich sites have (small) storage areas for cleaning agents and chemicals. No information is available about contamination of the Munich sites. Dangerous waste consists of old batteries and old fluorescent tubes.

Previous Environmental Achievements

In 2003/ 2004, the Isar building and PschorrHöfe participated in the ECOPROFIT project, which was initiated by the city of Munich and carried out by the Arqum company.

The project consisted of ten workshops and five on-site visits and was the EPO's first comprehensive approach to environmental protection in Munich, including aspects with regard to energy efficiency and the management of waste, water and hazardous substances. As part of ECOPROFIT, the EPO implemented environmental measures ranging from the optimisation of the central building control system to awareness-raising amongst the staff, and achieved energy savings of approx. 1.200.000 kWh per year and CO_2 savings of approx. 766 680 kg per year. Some measures are listed below which were implemented in the Isar and PschorrHöfe buildings to reduce electricity consumption. For instance, the inside and outside lighting systems were modernised, and a new frequency changer for the escalators was installed. Moreover, the cooling machines were replaced by more efficient ones and halogen lamps were replaced by compact fluorescent lights in the lobby and the output area of the canteen. The operating time of the ventilation system was also reduced to save energy.

Apart from participating in ECOPROFIT, the EPO has continually focussed on environmental issues in its everyday operations. The installation of videoconference systems at all sites, for example, has significantly reduced business travel.

Sites/buildings	Gross floor area (BGF)	Gross floor area w/o basement (GF)	Workplaces	Status
Isar building (Head Office)	84 400 m²	52 760 m²	900	Proprietor
PschorrHöfe 1–8	251 500 m²	176 775 m²	3 285	Proprietor
Capitellum	25 900 m²	16 167 m²	430	Leased
Westsite	26 200 m²	19 678 m²	430	Leased

Most relevant environmental law	Relevant facilities/activities
Regulations regarding emissions from small and medium heating systems (1. BImSchV)	Heating system (natural gas)
Regulation regarding woodworking dust (7. BimSchV)	Carpenter's shop
Waste water regulations and fees	Water discharge into the sewage system
Regulations regarding water-contaminating substances	Oil separators, printing shop, fuel oil tanks
Waste regulations and fees	Recycling/separation/disposal of various types of waste
Regulations on dangerous substances	Handling/storage of dangerous substances, e.g. acid/lye solutions; transmission of dangerous waste (potential)
Building regulations; criteria for renovations/ alterations	Building activities
Energy efficiency regulations for building	Insulation of the building/energy-efficient technologies
Facility safety regulations	Periodical inspections, e.g. fuel tanks, compressors, elevators
Working conditions/Health & Safety	Appropriate risk assessment, fire prevention, restrictions on certain chemical agents

1.3 EPO The Hague

After Munich, The Hague is the second largest site comprising five building complexes – three owned by the EPO and two leased buildings. Owing to their size and condition, certain buildings consume a large amount of heat energy. All buildings are heated by natural gas. In the Main and Shell buildings, tanks with diesel fuel feed the generators. Outside the Shell building there is an underground storage area for diesel fuel (three tanks each containing 5 000 litres and one containing 4 000 litres). These are for the generators in the Deep Cellar Shell building in case of power down.

The buildings containing a kitchen have grease separators as well as a dish-washing area. Moreover, the Shell, Hinge and Le Croisé buildings include cooling devices and storage areas for liquid cleaning agents. Furthermore, in regard to chemicals, the Deep Cellar Shell building contains several 200 litre containers with glycol for the air-processing units; in the Hinge small containers containing hydrogen peroxide for the fountain water are stored. No information is available about contamination of the site in The Hague. Dangerous waste consists of old batteries and old fluorescent tubes. The site is subject to the "Mileugaarverslag", an environmental permit on so-called basic principles. This confers on the permit holder maximum flexibility within the basic legal framework.

Previous Environmental Achievements

For several years, the EPO in The Hague has been obtaining electricity from a renewable source – hydro energy. This decision has contributed significantly to reducing the EPO's CO_2 emissions in The Hague, which are caused mainly by its energy consumption.

In the big renovation of the Shell building, all air-processing units were replaced by devices with heat recovery wheels. Furthermore, the lighting system in all Shell offices has been fitted with motion detection and automatic shut-down. The outside daylight is detected and the light intensity of the lighting along the windows is adapted accordingly. Automatic air-temperature regulation has been installed in each office to guarantee the most efficient use of the air-processing units. In line with the Protocols of Montreal and Copenhagen, the halon gas in the fire-fighting system in the Shell has been replaced by Inergen.

Moreover, the Hague branch has signed up a cleaning company that uses cotton with 30% fabrics from biological cultivation in the towels, and reuses the water from washing the towels to wash the floor mats. By using foam soap rather than liquid soap in the soap dispensers, the Office has also considerably reduced the amount of soap used in the sanitary facilities and thus cut the pollution of the waste water.

Sites/buildings	Gross floor area (BGF)	Gross floor area w/o basement (GF)	Workplaces	Status
Main, Shell, Hinge	192 695 m²	176 421 m²	2 510	Proprietor
Le Croisé	28 700 m²	24 893 m²	540	Leased
Rijsvoort	12 600 m²	9 763 m²	150	Leased

Most relevant environmental law	Relevant facilities/activities
Rules on general environmental management	Environmental permit, annual environmental report to the municipality of Rijswijk
Decision on emissions from combustion installations B	Heating system
Groundwater/waste water regulations: extraction and discharge	Water discharge into the sewage system
Regulations on dangerous substances	Handling/storage/transport of dangerous substances, e.g. glycol, asbestos; transmission of dangerous waste (potential); oil separators, fuel oil tanks
Regulations regarding water-contaminating substances	
Regulations on the storage of underground fuel tanks	Underground storage area for diesel fuel
Regulation on leak-proofing of cooling facilities	Cooling installation containing 3kg or more of coolant
Waste regulations and fees	Recycling/separation/disposal of various types of waste
Building regulations; criteria for renovations/ alterations	Building activities
Working conditions/Health & Safety	Appropriate risk assessment, fire prevention, restrictions on certain chemical agents

1.4 EPO Vienna

The EPO Vienna is the smallest of all the EPO sites both in terms of gross floor area and members of staff. The Vienna office uses community heating. Facilities with environmental relevance are limited to a small store for cleaning agents. No information is available about contamination of the Vienna site. Dangerous waste consists of old batteries and old fluorescent tubes.

Previous Environmental Achievements

In 2009, the insulation was improved in connection with the renovation of the flat roofs of the Vienna building. This reduced the consumption of energy for heating.

Sites/buildings	Gross floor area (BGF)	Gross floor area w/o basement (GF)	Workplaces	Status
1 building	12 300 m²	6 979 m²	150	Proprietor

Most relevant environmental law	Relevant facilities /activities
96th Federal Act: Environmental Management Act	Environmental permit, annual environmental report to the municipality of Rijswijk
Groundwater/waste water regulations: extraction and discharge	Water discharge into the sewage system
Regulations on dangerous substances	Handling/storage/transport of dangerous substances; transmission of dangerous waste (potential)
Waste regulations and fees	Recycling/separation/disposal of various types of waste
Building regulations; criteria for renovations/ alterations	Insulation of the building/energy-efficient technologies/ heating in buildings
Working conditions/Health & Safety	Appropriate risk assessment, fire prevention, restrictions on certain chemical agents

2. Environmental Policy

Our environmental policy provides a strategic framework for all activities at the EPO and emphasises the importance of environmental protection at the Office. The policy is binding upon all departments. Senior managers are committed to ensuring that this policy is well understood and applied in all departments.

Our environmental policy is formulated as follows:

The European Patent Office consumes a large amount of heat and electrical energy, as well as water and paper, and generates both waste and CO_2 emissions. It has adressed these environmental issues by introducing an environmental management system that meets the requirements of the Eco-Managementand Audit Scheme (EMAS).

With a view to improving its environmental performance, the EPO continuously assesses the environmental impact of its operations. It sets objectives and targets and reviews them on a regular basis.

The following principles and objectives guide the EPO's actions:

- Promote a responsible approach to the environment within the EPO and communicate and implement this policy at all levels of the Office;
- Minimise the consumption of energy, water, paper and other resources;
- Minimise waste and pollution;
- Comply with relevant environmental legislation, regulations and other requirements;
- Provide appropriate resources to fulfil the Office's policy commitments;
- Promote and encourage involvement in local environmental initiatives and schemes;
- Make this policy available to interested parties.

Since the EPO considers it the responsibility of every staff member to help meet the objective of achieving optimal environmental protection, it provides its staff with appropriate training, advice and information and encourages them to develop new ideas on how to implement the Office's environmental policy effectively.

3. Environmental management system

By participating in the ECOPROFIT project in Munich in 2003 and 2004, the EPO laid the foundations for its certification under the European Eco-Management and Audit Scheme (EMAS). The EPO's environmental performance was assessed and ecological and economical measures for improvement were developed and introduced.

By implementing an environmental management system under EMAS in 2009, the EPO adopted a leading environmental role as an administrative institution. This management system aims to integrate environmental elements into all aspects of the Office's operations. All areas of the EPO will be continuously assessed with a view to introducing and optimising environmental protection regulations. All employees have been addressed and motivated to adopt environmentally friendly behaviour through recommendations and information.

The structure of the environmental management system is defined in our environmental management handbook. In general, it comprises a central system which applies to all sites, including a joint environmental policy, environmental handbook and environmental statement to inform the public about the EPO's environmental performance. These central arrangements are organised and co-ordinated by the EPO in Munich. In addition, site-specific procedures and documents have been compiled for each site. These include the data collection and environmental programme with suggestions for improvements at each site.

The central environmental management officer is in charge of planning and monitoring the overall efficiency and effectiveness of the environmental management system within the EPO. He/she is supported by a central environmental team including one/two members from each location (Berlin, Munich, The Hague, Vienna). Moreover, there is an environmental representative at each site. Together with the local environmental team, he/she is in charge of planning, co-ordinating and monitoring on-site environmental activities and ensuring that environmental aspects are integrated into everyday operations.

Our environmental management system is regularly assessed through internal audits, thus ensuring a continuous improvement process (CIP). All relevant information is communicated to our staff members through the intranet, regular newsletter articles, etc., and is made available to the public in the environmental statement.

4. Compliance with legal requirements

The EMAS and the applicable environmental law for the different sites constitute external requirements to the EPO and our environmental management system. We have identified for every site those regulations which are specifically relevant and obligatory for the EPO. They are documented in the legal register for each country in which the EPO is located.

By reviewing the legal register continuously, modifications within the environmental legal framework are identified and the new requirements are implemented. Moreover, all periodical obligations at the different sites (e.g. periodical inspections of the fuel tanks) are documented in a register of periodical duties.

5. Direct environmental aspects

Site	Relevant environmental aspects	Priority
Berlin	electricity heat water residual waste	medium low medium medium
Munich Isar	electricity heat water residual waste	high high high medium
Munich PschorrHöfe	electricity heat water residual waste	medium low medium medium
Munich Westsite	electricity heat water residual waste	medium low medium medium
Munich Capitellum	electricity heat water residual waste	medium low medium medium
The Hague Hinge/Shell/ Main	electricity heat water residual waste	high medium high medium
The Hague Le Croisé	electricity heat water residual waste	medium low medium medium
The Hague Rijsvoort	electricity heat water residual waste	medium high high medium
Vienna	electricity heat water residual waste	high medium medium high
All sites	CO_2-Emissions from business travel	medium

Our activities have an environmental impact. In accordance with our environmental policy we aspire to reduce this impact by implementing and continually improving our environmental management system. In line with the management review, all important environmental aspects are assessed on an annual basis. This evaluation serves as a basis for developing new environmental objectives and measures for improvement in the future.

Environmental aspects are subdivided into direct and indirect environmental aspects. Direct environmental aspects include emissions, waste production, water consumption or soil pollution. They are caused by our everyday activities and are fully under our control (see section 6 for a definition of indirect environmental aspects).
The main environmental aspects at the EPO include energy consumption for electricity and heat energy, CO2 emissions from business travel, water consumption and the generation of residual waste. In Order to evaluate the relevance of environmental aspects, the environmental data of all sites was compared with each other. Energy and heat data was additionally compared with benchmarking values of the “ages-studie 2005”. As conclusion the following relevance of direct environmental aspects was found:

Overview – all sites

The consumption data for each site and the resulting index figures are an important instrument for assessing current environmental performance, planning and monitoring environmental activities and regularly reviewing the continuing improvement process.
In 2007/ 2008, the environmental data from all sites generated the following eco-balance for the EPO.
(In 2007 no data was available for PH 8 (Munich) and Le Croisé and Rijsvoort (The Hague). In 2008 the data for Le Croisé is included.)

Input	Unit	2007	2008
Electricity consumption	kWh	43 073 936	47 283 500
Heat energy consumption (all items)	kWh	43 035 705	48 140 789
Fresh water consumption	m^3	122 831	131 262

Output	Unit	2007	2008
Residual waste production	t	525	785
Waste water generation	m^3	115 715	118 932
Waste paper (printing and copying paper) generation	t	735	783
CO_2 emissions from business travel for 1st and 2nd quarter 2008	kg	n.n.	261 746
CO_2 emissions from electricity and heat energy	kg	35 658 395	39 307 059

5.1 Energy

Energy consumption at the Office can be divided into electrical energy and energy for heating and cooling buildings and facilities. Our main energy consumers include
– cooling/ventilation and air conditioning
– heating facilities
– IT
– PCs and printers
– lighting in offices and public areas.
Data concerning the rented buildings in The Hague (Le Croisé and Rijsvoort) is not currently communicated by the owners. They are to be requested to provide these figures on a yearly basis.

Of all the EPO's environmental aspects, energy consumption has the main environmental impact and generates the highest costs. Various technical measures have therefore been undertaken, or are being planned, at all sites to reduce the EPO's energy consumption. Examples include the installation of motion detectors in public rooms in Berlin for needs-based use of lighting, the introduction of a heat recovery system at Munich Isar and improved insulation in connection with the renovation of flat roofs in Vienna. In general, all construction and renovation work is guided by the principle of low operating costs and energy efficiency.

The following tables and charts offer a comparison of the total electricity and heat energy consumption at each site. At all sites, most of the electrical energy is used for lighting, IT and private technical equipment such as PCs and desktop printers.

The heat energy at the different sites is generated by various sources. While Berlin, Munich Isar, Munich PschorrHöfe and Vienna receive community heating, the Westsite and Capitellum offices in Munich and Shell/Main/Hinge in The Hague use natural gas. Moreover, Berlin also deploys a small quantity of fuel oil. Please consider that for the site Rijsvoort only data from 2009 was available. Therefore the data for 2008 is an estimated value.

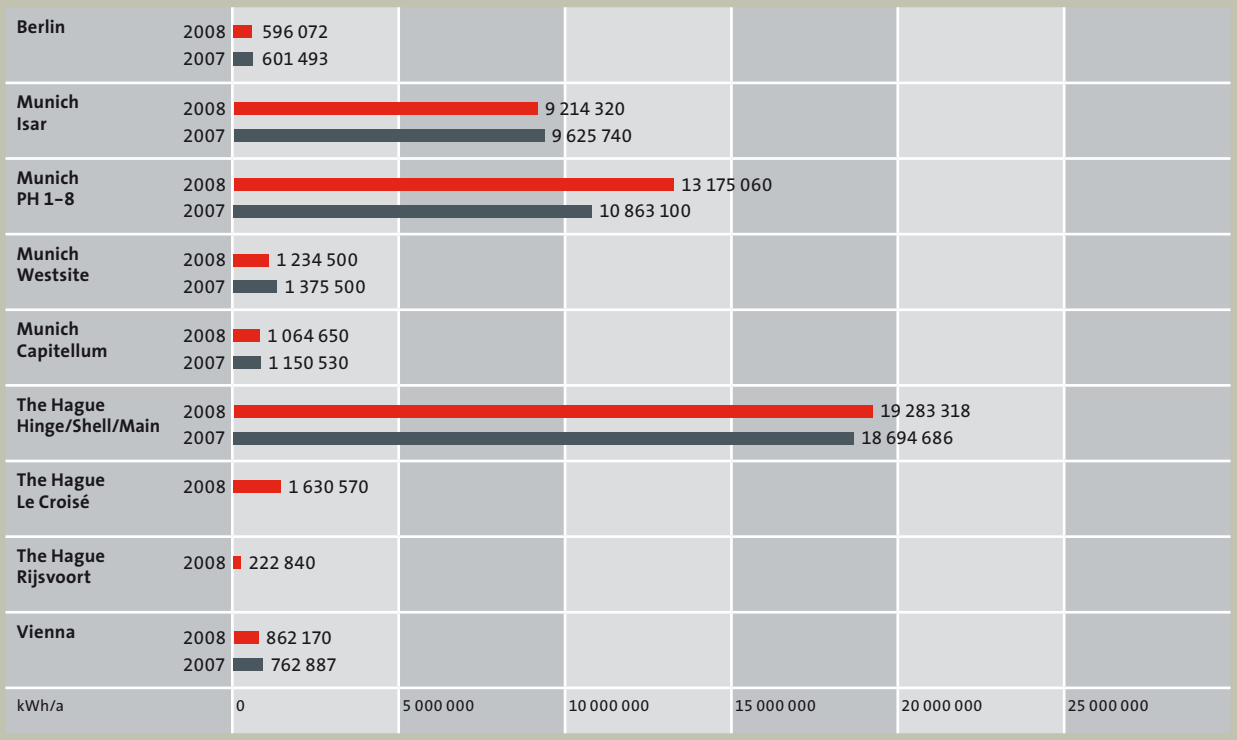
In keeping with the size of the sites, Munich Isar, Pschorr-Höfe and Shell/Main/Hinge consume the largest amount of heat energy in kWh per year.

Apart from monitoring the total electricity and heat energy consumption, we have generated key indices, such as the consumption of electricity per floor area (kWh/ m^2), which offer better comparability between the various buildings and sites.

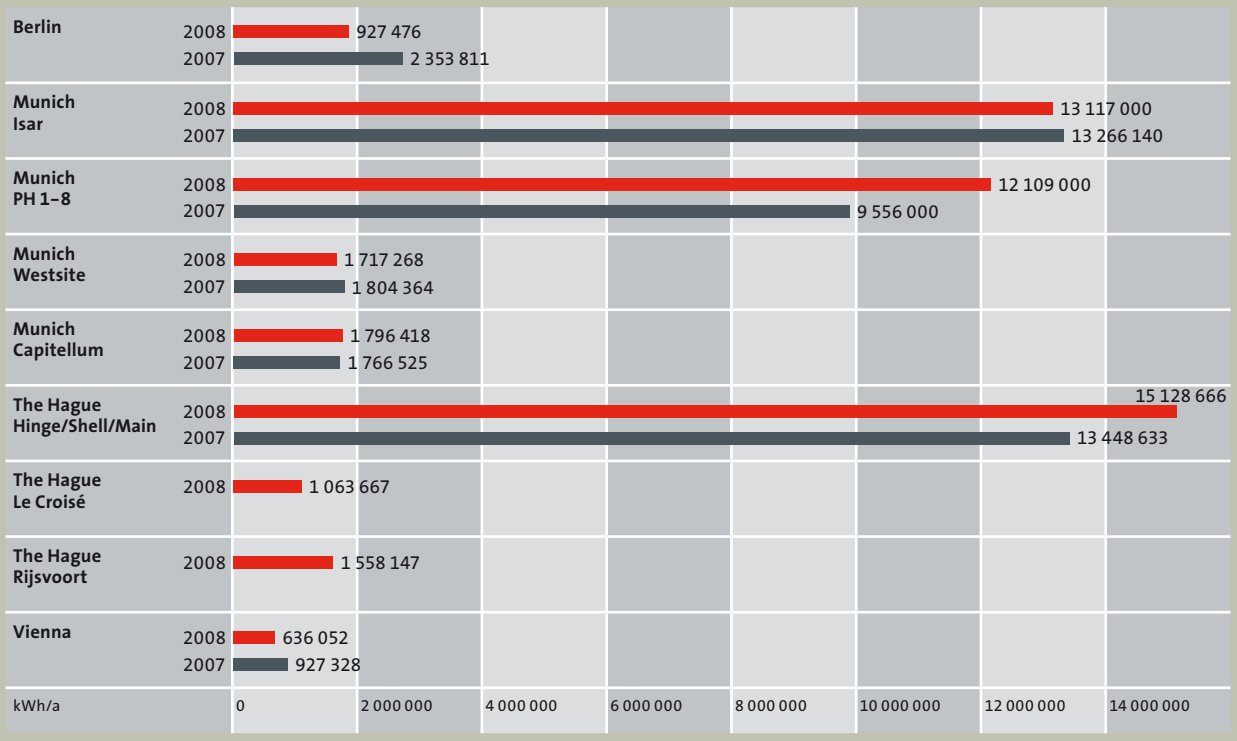
Munich Isar, Main/Shell/Hinge in The Hague and Vienna, in particular, record a higher consumption of electricity per floor area. This can be explained by the technical equipment in place, e.g. air-conditioning systems and IT servers.
The specific heat energy consumption (heat energy per m^2) is compared with a reference value. The ages reference value is from 2005 and was derived from a survey of 175 non-residential administrative buildings (for further information see *www.ages-gmbh.de*).

As the diagram shows, several sites are below or close to the ages reference value of 87 kWh/m^2 for administrative buildings with advanced technical equipment. The newer and/or well insulated buildings including Westsite, PschorrHöfe and Capitellum in Munich and Main/Shell/Hinge in The Hague have particularly good values.

Electricity consumption (kWh/a)

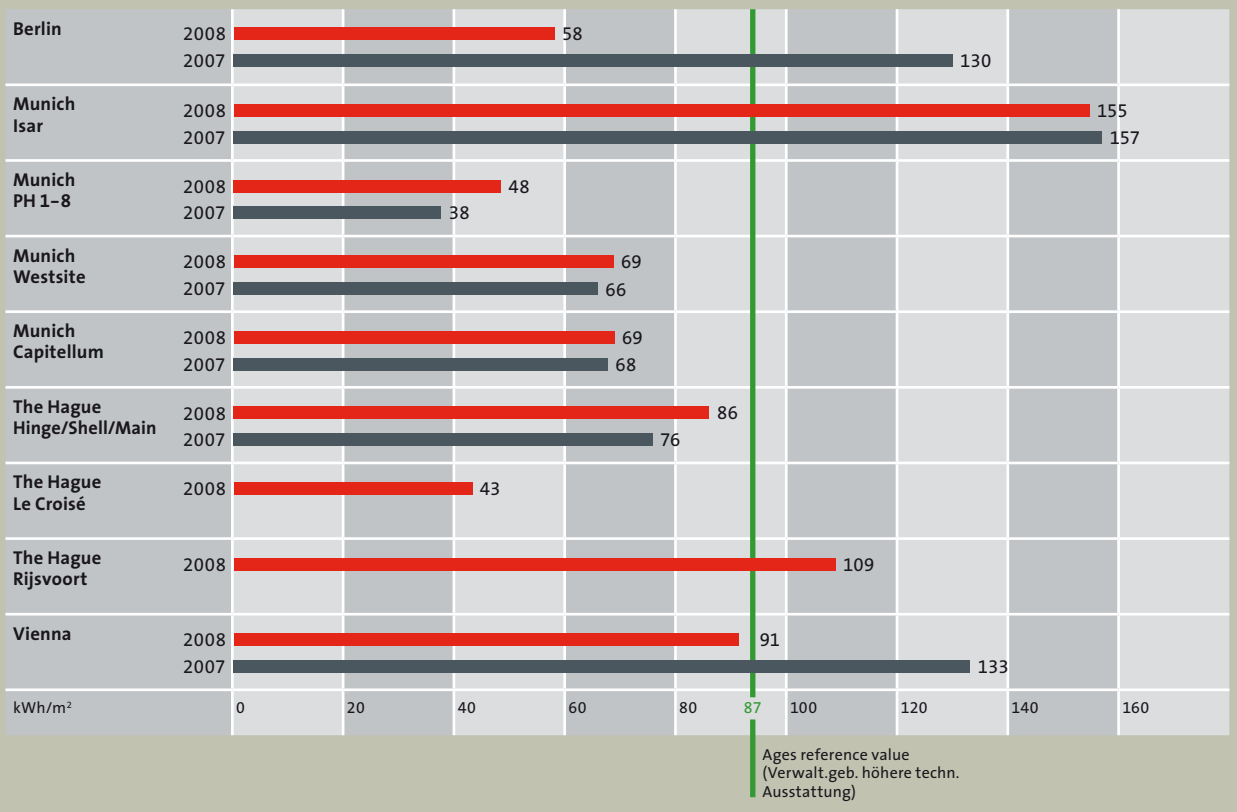


Heat energy consumption (kWh/a)



Specific electricity consumption (Consumption kWh / floor area m²)

Specific heat energy consumption (Consumption kWh / floor area m²)



5.2 Mobility

Business trips between the EPO locations constitute the main component of travel at the EPO. To a lesser extent, employees travel to meet clients and partners or attend conferences and other events. As yet, only data for business trips between the offices has been collected. In addition to the number of flights between the offices, the amount of CO_2 emissions has been calculated by using the conversion factor 0.150 kg/km. As can be seen in the tables below, the majority of flights and CO_2 emissions in 2008 (up to and including July) occurred between Amsterdam and Munich.

In the light of the EPO's efforts to reduce its carbon footprint, we encourage our employees at all sites to forgo business trips by plane and car in favour of alternative means of transport, e.g. rail, and telecommunications. For this purpose, we distribute an information leaflet to all (new) employees, including advice and information on climate-friendly business travel, and promote the use of an Excel tool for comparing CO_2 emissions from air travel, train travel and videoconferencing. New video conference rooms were installed in 2008/2009.

5.3 Water/Waste Water

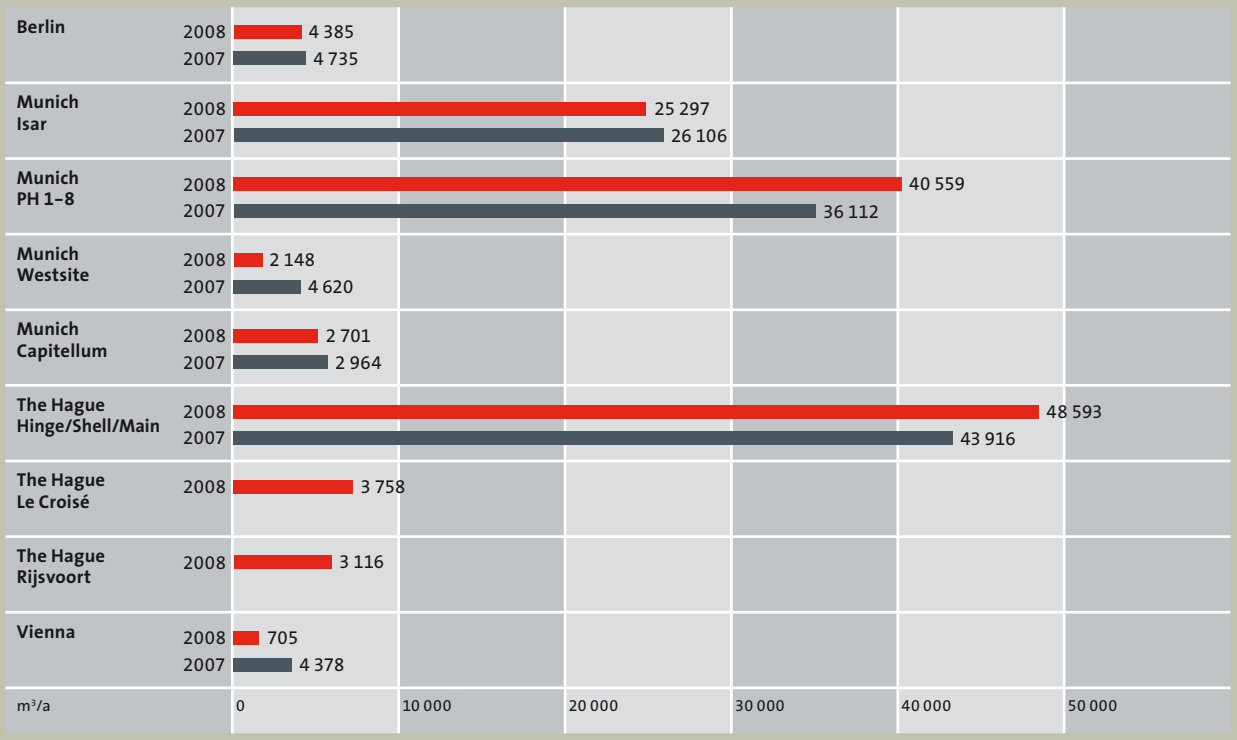
It is our declared goal to save water and consequently protect the world's natural resources. At all sites we receive our fresh water from the municipality.

At all sites, most of the fresh water is deployed in sanitary facilities, kitchens and washing areas for vehicles (in individual cases). Here, the contamination consists mainly of organic elements. Moreover, at Munich Isar and the Shell, Main and Hinge buildings in The Hague, fresh water is used for the air-conditioning system and for watering plants and green spaces on-site. Owing to the installation of oil and grease separators, and water-supply servicing and maintenance, treatment and disposal procedures are carried out regularly. Water consumption per employee varies substantially between the sites. Please consider that for the site Rijsvoort only data from 2009 was available. Therefore the data for 2008 is an estimated value (graphs page 21).

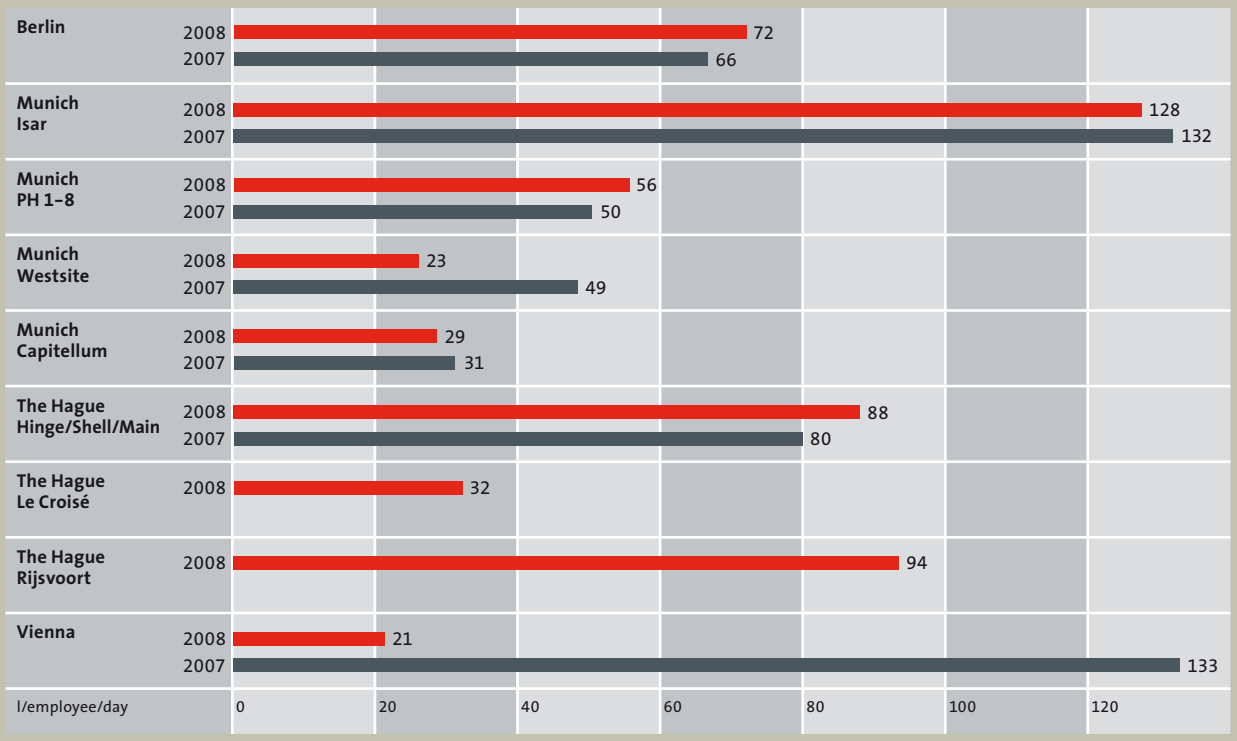
Berlin – Munich	117
Munich – Vienna	126
Amsterdam – Munich	1 155
Amsterdam – Berlin	4
Amsterdam – Vienna	2

CO_2 emissions from air travel between sites 2008 (kg) (up to and incl. July)

Fresh water consumption (m³/a)



Fresh water consumption per employee per day (l/employee/day)



5.4 Waste

Our organisation's waste is registered, and the different types and amounts are analysed in the waste log as part of our environmental data.

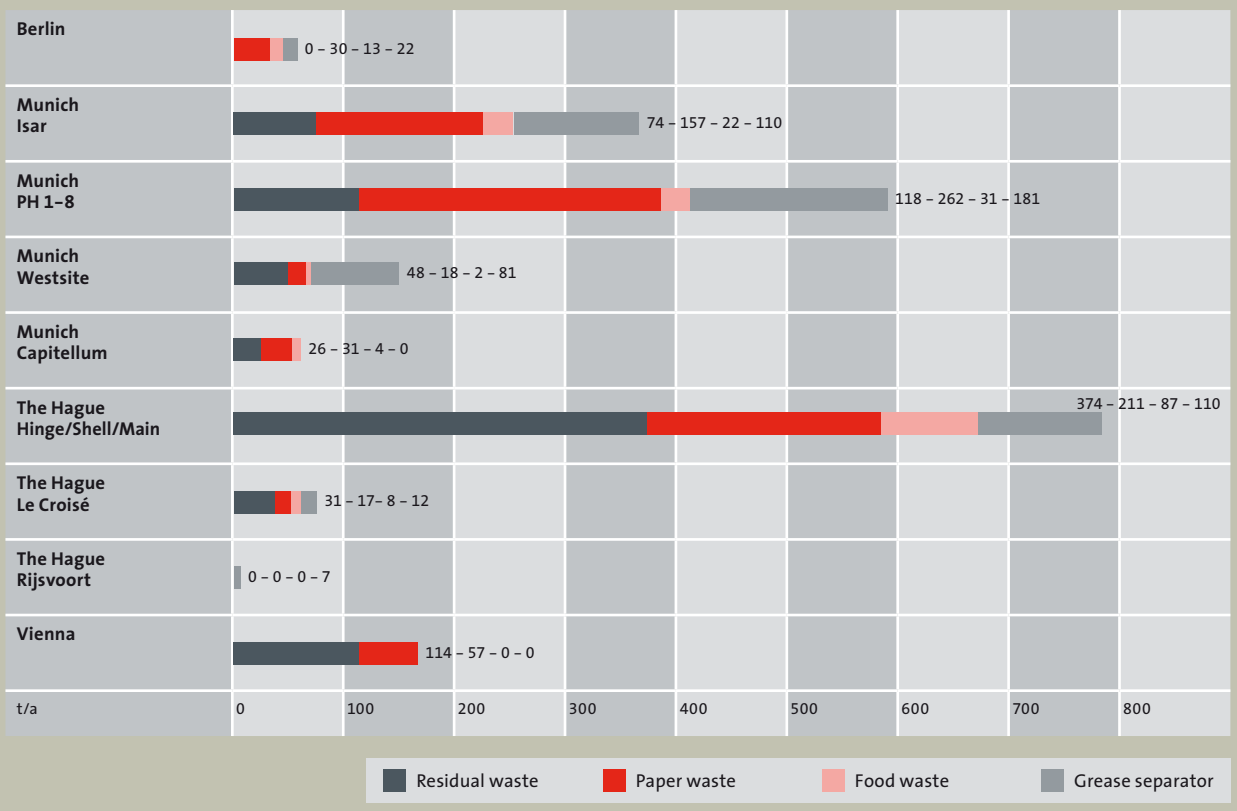
To guarantee that waste is collected separately, we have established a waste separation system with clearly identifiable and distinguishable waste containers in all rooms and work areas at all our sites. Our staff is briefed on waste avoidance, recycling and correct disposal.

From day to day, residual waste and waste paper constitute the main categories of waste at all sites.

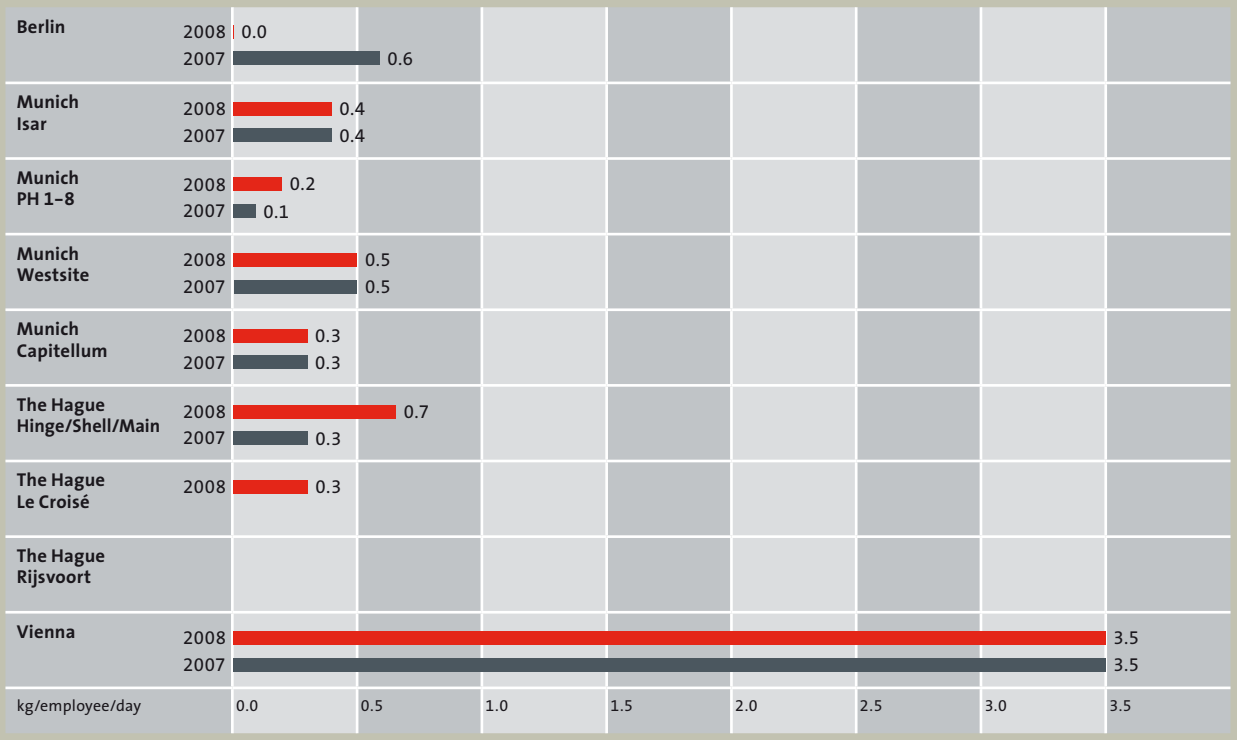
While the majority of sites generate up to a maximum of 0.5 kg per employee per day, specific residual waste generation in Vienna is very high. Action is being taken to ensure better waste separation. The increase of specific residual waste generation in The Hague took place in succession of moves and has to be monitored in order to set new measures for residual waste reduction.

The graph on this page shows the different compositions of waste at all sites. Please consider that not all the sites produce the same waste. Data for food waste and Grease separator for instance was only available at sites with a canteen. The Graphs clarify that the compositions of waste differentiate between the several sites.

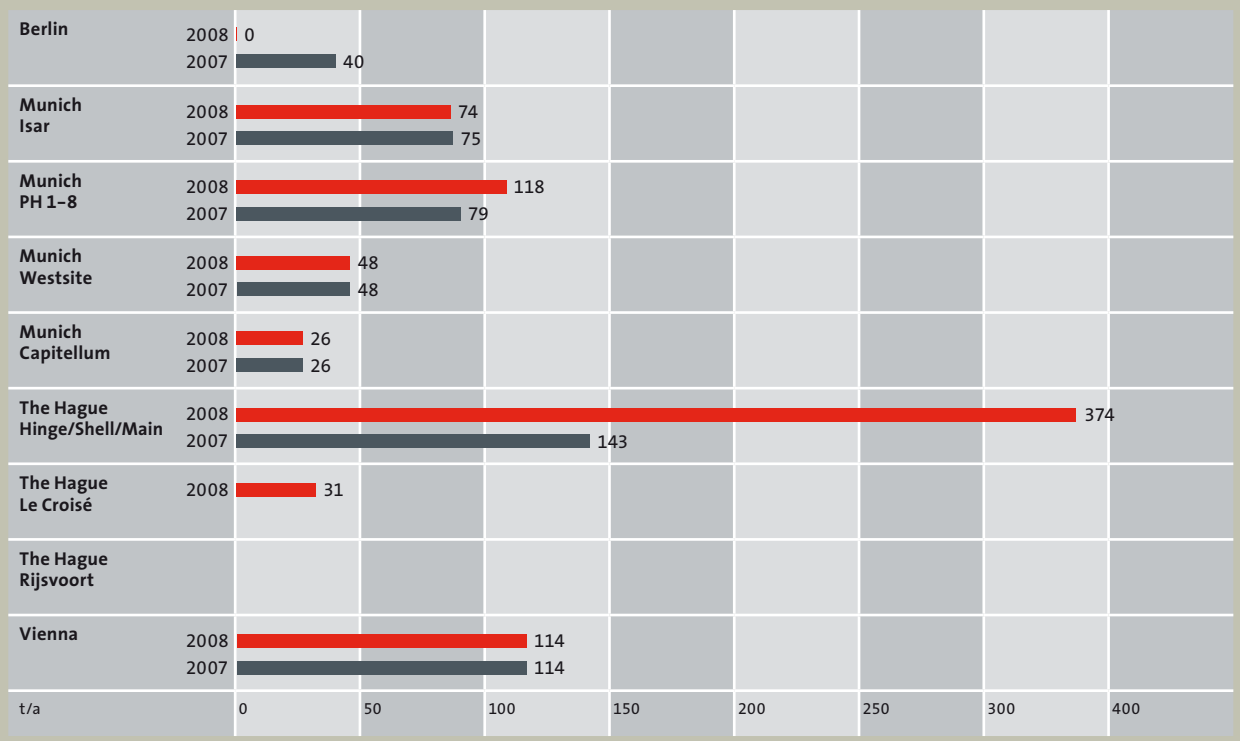
Composition of waste in 2008 (t/a)



Residual waste production (kg per employee per day)



Residual waste production (t/a)



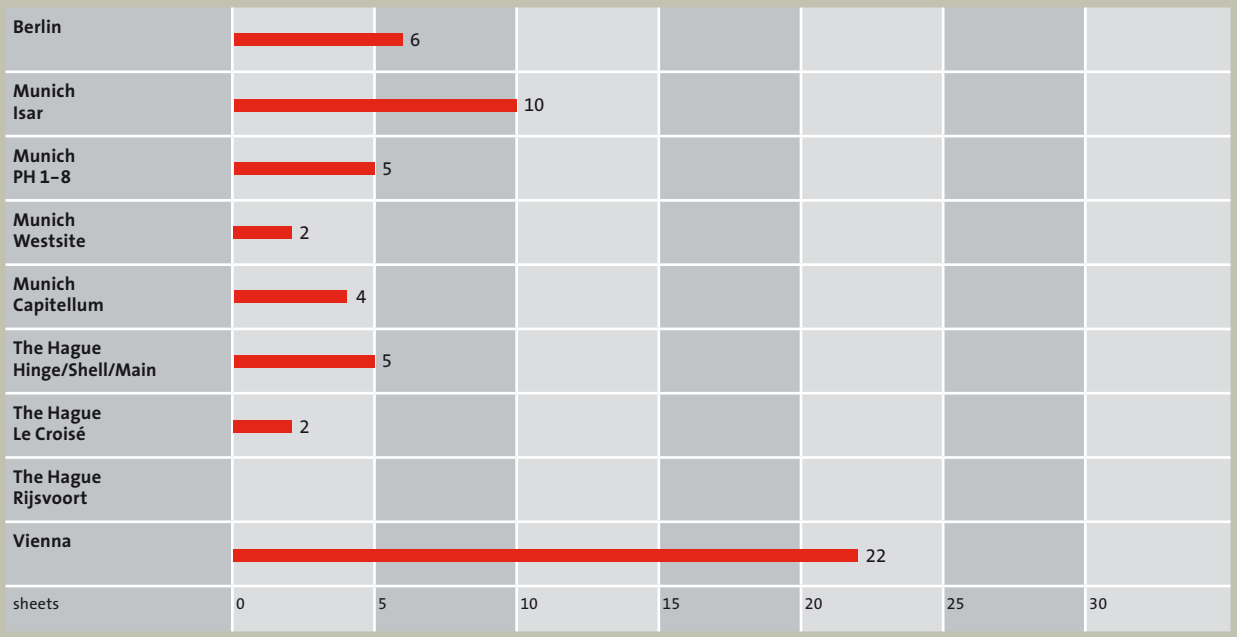
5.5 Paper Consumption

In addition to residual waste, a large amount of paper is consumed and disposed of at the Office. Paper and cardboard are collected by the cleaning staff and sorted into separate containers.

The number of sheets of paper at each site varies from 2 to 22 per employee per day. This includes white and green paper.

Total paper consumption in 2008 (sheets)

Paper consumption per employee in 2008 (sheets)

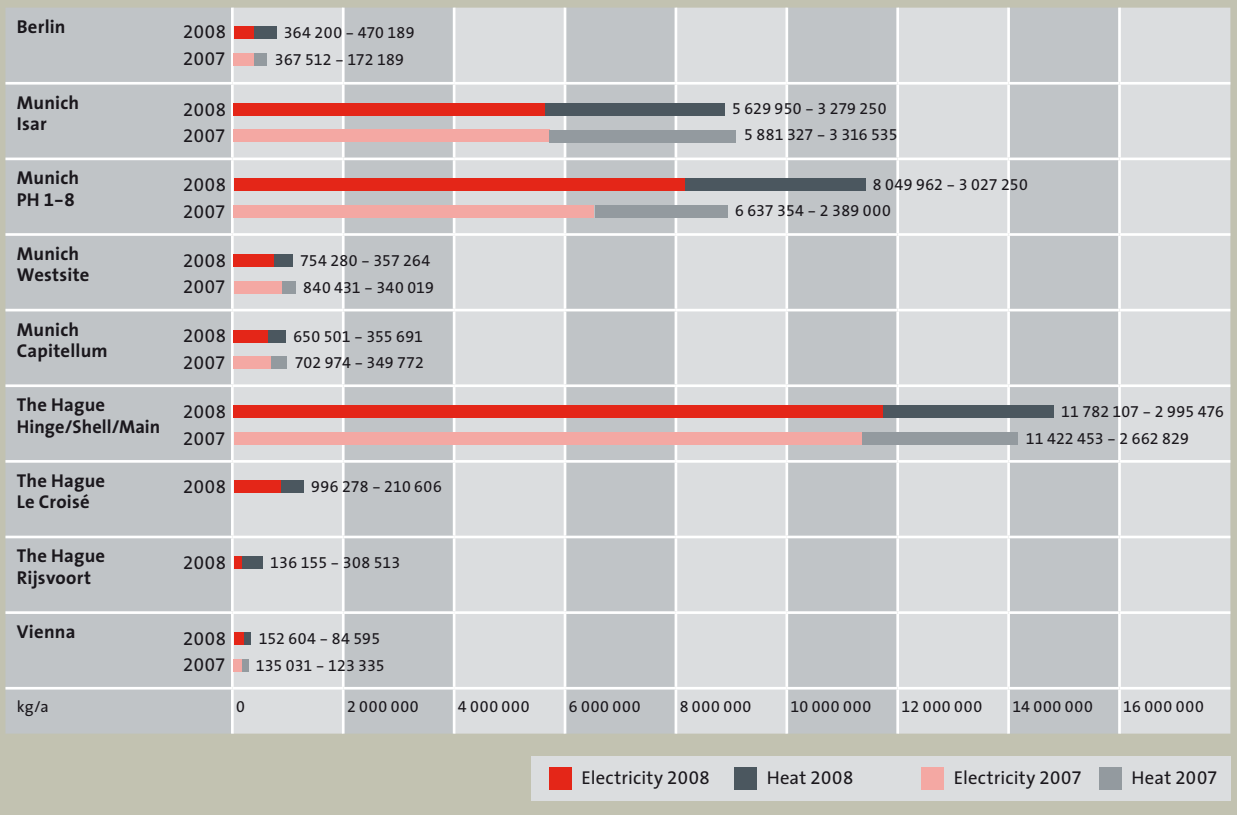


5.6 Carbon Footprint

Emissions arise mainly from our heating installations. To minimise emissions and meet the legal limits we regularly carry out technical inspections and measurements. Moreover, we strive to optimise our electricity and heat energy consumption and reduce the number of business trips by air, e.g. by promoting new conferencing technologies such as videoconferencing. Please consider that for the site Rijsvoort only data from 2009 was available. Therefore the data for 2008 is an estimated value. The factors for converting electricity and heat energy (kWh) and air travel (k/km) into kg CO_2 emissions are listed in the following table.

Source	Unit	Value
Electricity (except TH Main/Shell/Hinge)	kg/kWh	0.611
Electricity Vienna	kg/kWh	0.177
Electricity TH Main/Shell/Hinge (hydro power)	kg/kWh	0.000
Fuel oil (light)	kg/kWh	0.267
Natural gas	kg/kWh	0.198
Community heating Berlin	kg/kWh	0.150
Community heating MUC Isar	kg/kWh	0.250
Community heating PH 1-8	kg/kWh	0.250
Community heating Vienna	kg/kWh	0.133
Air travel (all sites)	kg/km	0.150

CO_2 emissions from electricity and heat energy (kg/a)



6. Indirect environmental aspects

Indirect environmental aspects are consequences of our activities which we cannot fully control. For instance, they result from the behaviour of our suppliers and contractors or our employees' journeys to and from the office.

Furthermore, the EPO considers the patent procedure a significant indirect environmental aspect of its activities. The patent information activities of the EPO can be considered a lever to promote further development of environmentally friendly technologies, but also to stimulate political action. The Office is putting in place structures for systematically indexing patents which have environmental relevance, and for making this data widely available in its public databases which are accessible at no charge. Continuous updates will ensure comprehensive information for inventors, scientists and politicians.

Using a special procedure, we have assigned each indirect environmental aspect to the following categories:

A = highly significant environmental aspect with above-average need for action
B = significant environmental aspect with average need for action
C = less significant environmental aspect with marginal need for action

Furthermore, the extent to which the indirect environmental aspects can be controlled has been classified in the following categories:

I = short-term control possible
II = medium to long-term control possible
III = control not possible or only in the long term, or in the light of decisions of a third party

A full overview of our indirect environmental aspects is evaluated in the table below.

To reduce these indirect environmental aspects, we are focussing on co-operation with long-term contractors and suppliers, such as cleaning and canteen services. In doing so, we especially aim to achieve the following objectives:

– regular information to contractors and suppliers about the EPO's environmental activities to encourage them to improve their environmental performance
– promotion of local/regional food in the canteen
– promotion of a job ticket for public transport to/from the Office

Regarding the purchase of goods and services, all departments are encouraged to consider the environmental impact as an additional factor in tender procedures and decisions to award contracts under the EPO Financial Regulations. Moreover, environmental aspects are specified in the procurement manuals for (a) general and (b) IT orders. The manuals serve as guidelines for all procuring units.

Indirect Environmental Aspect	Evaluation	Priority
Patent procedure	B III	Low
Purchase of food for canteen	B II	High
Paper consumption	B II	High
Travel to/from office	A III	High
Use of ecological resources for building/renovation, e.g. paint	C I	High
Impact on rented buildings	C III	Low
Procurement, e.g. of furniture (extend environmental aspect in contract)	C II	Low
Performance of contractors	C III	Low

7. Improvements: Objectives and measures

Our environmental management system is geared to continually and systematically identifying and implementing measures to improve the EPO's environmental performance. For this purpose, we identify and evaluate the EPO's direct and indirect environmental aspects on a regular basis.

Environmental Objectives	Date
Berlin	
Objective: Reduction of electricity consumption of approx. 76 000 kWh p.a.	
Installation of motion detectors in hallways and staircases for need-based lighting	2010 – 2011
Renewal of lift control units	2010 – 2011
Objective: Reduction of heat consumption of approx. 80 000 kWh p.a.	
Renovation of windows	2010 – 2011
Other objectives:	
Grease separator	2010
Bio-certification of components	2010
Munich	
Objective: Reduction of electricity consumption of approx. 390 000 kWh p.a.	
Installation of an ice store in the Isar building	2009 – 2011
Installation of energy-saving components during renewal of the PH building control system	2009 – 2010
Objective: Reduction of heat consumption of approx. 1 180 000 kWh p.a.	
Replace Isar building windows	2009 – 2011
Upgrade existing induction units in the Isar building	2009 – 2011
Installation of a heat recovery system in the Isar building	2009 – 2011
The Hague	
Objective: Reduction of electricity consumption of approx. 1 420 000 kWh p.a.	
Establishment of a robust primary energy sub-metering strategy across the site	2010 – 2011
Vienna	
Objective: Reduction of electricity consumption of approx. 29 000 kWh p.a.	
Removal of stand-alone cooling machine	2008 – 2010
Adjustment of existing ventilation system	2008 – 2010
Objective: Reduction of heat consumption of approx. 5 000 kWh p.a.	
Partial Improvement of insulation in connection with renovation of flat roof (Schwarzdächer)	2008 – 2010
Security staff to be instructed to close windows at night during heating period	2008 – 2010
Security staff to be instructed to open windows at night in summer	2008 – 2010
Reduce heating in vacant offices	2008 – 2010

In accordance with our environmental policy the Office primarily seeks to:

- minimise the consumption of energy, water, paper and other resources, and reduce costs
- reduce its carbon footprint and CO_2 emissions through optimised energy and mobility management
- standardise processes within and between the different sites
- act as a role model for our contractors and suppliers
- regularly inform all members of staff and the public of our environmental activities.

To implement our environmental policy and achieve these overall goals, the central environmental management team (in co-operation with the budget representative) defines annual environmental objectives, taking account of the development and evaluation of environmental aspects and suggestions for improvements from internal audits, external inspections, etc. Objectives are defined for all environmental aspects with short-term and medium-term need for action. If possible, quantitative targets are set and included in the environmental programmes.
Moreover, specific measures for improvements are listed and updated on an annual basis in the environmental programme for each site. Suggestions from local employees and environmental groups are included.
The following sections offer an overview of the measures for improvements which have been successfully implemented or are planned at each site for 2009-2011. The quoted target values refer to the consumptions of 2008.

8. Contact persons

In Berlin, Marcus Vits as environmental representative for this site is responsible for the co-ordination and implementation of environmental objectives and measures.

In Munich, Angelo Scelsi as environmental representative for this site is responsible for the co-ordination and implementation of environmental objectives and measures.
He is assisted by the local environmental team.

In The Hague, Janine ter Maat as environmental representative for this site is responsible for the co-ordination and implementation of environmental objectives and measures.
She is assisted by the local environmental team.

In Vienna, Stefan Moll as environmental representative for this site is responsible for the co-ordination and implementation of environmental objectives and measures.

Location	Contact Person	E-mail
European Patent Office Berlin	Marcus Vits	mvits@epo.org
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European Patent Office The Hague	Janine ter Maat	jtermaat@epo.org
European Patent Office Vienna	Stefan Moll	smoll@epo.org

9. Release to the general public

This environmental statement is intended to inform our staff, contractors and the general public about environmental protection measures at the EPO. We guarantee the accuracy of the information published in it and have released it for publication. Our senior management is responsible for its release.

For further information please contact Lars Hansen, our central Environmental Management Officer.

The next consolidated environmental statement will be presented for validation in spring 2012.
In the intervening years, the statement will be updated for validation annually by the external environmental auditor.

We have appointed the following external environmental auditor:

INTECHNICA Cert GmbH (Licence no. D–V–279)
Dr. Rainer Beer (Licence no. D–V–0007)
Ostendstraße 181
90482 Nürnberg
Germany

Validation

After verifying the environmental policy, the environmental management system, the methodology and results of the environmental review/internal audits, the environmental objectives and the environmental programme for each site, and the environmental statement, I declare the latter valid for the sites of the European Patent Office in Berlin, Munich, The Hague and Vienna in accordance with Regulation EG 761/2001.

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