

**The Expert Panel's  
Evaluation Work  
&  
Final Recommendations  
for the European Green Capital Award  
of 2010 and 2011**

**23rd January 2009**

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## 1 Introduction

The European Green Capital Award is the result of an initiative taken by 15 European cities (Tallinn, Helsinki, Riga, Vilnius, Berlin, Warsaw, Madrid, Ljubljana, Prague, Vienna, Kiel, Kotka, Dartford, Tartu & Glasgow) and the Association of Estonian cities on 15 May 2006 in Tallinn, Estonia. Their green vision was translated into a joint Memorandum of Understanding establishing an award to reward cities that are leading the way with environmentally friendly urban living. Currently, more than 40 major European cities, including 21 EU capitals support the initiative.

At a meeting on 29 June 2006 with the father of the initiative, Mr. Jüri Ratas, a former mayor of Tallinn and current Vice-President of the Estonian Parliament, EU Environment Commissioner Stavros Dimas expressed his support and offered to contribute to the development and implementation of the award scheme. President Barroso also wrote to the Mayor of Tallinn supporting the Green Capital initiative.

The establishment of this new award is timely since Europe is now an essentially urban society, with four out of five Europeans living in towns and cities. Most of the environmental challenges facing our society originate from urban areas but it is also these urban areas that bring together the commitment and innovation needed to resolve them. The European Green Capital Award aims to promote and reward these efforts.

It is important to reward cities which are making efforts to improve the urban environment and move towards healthier and sustainable living areas. Progress is its own reward, but the satisfaction and pride involved in winning a prestigious European award will spur cities to invest in further efforts and will boost awareness in other cities. The award will enable cities to inspire each other and share best practices, in the context of a friendly competition.

Winning the title of the European Green Capital will also bring advantageous side effects such as increased tourism, more investment and an influx of young professionals. It is therefore in a city's interest to become a prosperous place to live and work.

It is important to note that the policy background of the European Green Capital Award is the Thematic Strategy on the Urban Environment of 11 January 2006, which outlines the European Commission's commitment to support and encourage Europe's towns and cities to adopt a more integrated approach to urban management. This will ensure that they become better places to live in and reduce their environmental impact on the wider environment. The strategy also invites local and regional authorities to exploit the opportunities offered at EU level.

As the Thematic Strategy on the Urban Environment does not contain legislative measures, and because incentives are important, the European Green Capital Award can play a useful role here.

Similarly, the renewed Sustainable Development Strategy for an enlarged European Union aims to identify and develop actions that will enable the EU to achieve continuous improvement of the quality of life of both current and future generations. This can be done



through the creation of sustainable communities which is precisely what the European Green Capital Award intends to create.

The **objectives** of the European Green Capital Award are to:

- a) Reward cities that have a consistent record of achieving high environmental standards;
- b) Encourage cities to commit to ongoing and ambitious goals for further environmental improvement and sustainable development;
- c) Provide a role model to inspire other cities and promote best practice and experiences in all other European cities.

The overarching message that the new award scheme aims to communicate to the local level is that Europeans have a right to live in healthy urban areas, and cities should therefore strive to improve the quality of life of their citizens and reduce their impact on the global environment. This message is brought together in the Award's slogan "Green cities – fit for life".



## 2 Evaluation procedure

### 2.1 Theoretical framework

The title may award different elements of environmental achievements in a city. What the title is rewarding may influence which type of cities will have the best chances of being rewarded. Furthermore, it is decisive for the type of information the cities must provide. Therefore, the evaluation criteria must reflect what the title is actually rewarding.

In accordance with the Award's 3 objectives, the evaluation criteria are based on the following:

#### A. The 'greenest' city

The Award rewards the 'greenest' city in Europe based on the city's state of the environment as defined by the performance relative to each of the proposed indicators. The city with the highest urban environment quality in Europe will be rewarded.

It is important to note that achievement in relation to improving the current state of environment not only depends on initiatives implemented by the city itself but also on legal, economic and/or other initiatives stemming from the national government, initiatives from private enterprises or private funds and the level of awareness of the citizens.

Bearing this in mind, the title shows that European cities can be nice and green provided that there is the necessary commitment and prioritisation (as well as funding). As the starting point for most eastern European cities is still difficult and many are still struggling with substantial environmental problems from the past, the favourite candidate to receive the title will probably be a wealthy western European city.

#### B. Implementation of efficient and innovative measures & future commitment

The Award rewards the city that has implemented the most innovative and efficient measures and that has shown that it is committed to do the same in the future. It does not look at the overall environmental state of the city which means that a city with low urban environment quality may receive the award if it has recently implemented innovative and efficient measures and aims to continue to do this in the future.

This does not give preference to any specific type of city.

#### C. Communications and networking

- The Award rewards the city that can become a role model and inspire other cities to boost their efforts towards a greener urban environment by sharing experiences and promoting best practice among all applicants as well as other interested European cities. Given that the award is intended to help European cities become more attractive and healthy places and also provide an excellent opportunity to learn from each other, the rewarded city should develop and implement an ambitious communications strategy and programme of actions and events. If awarded the title, the city will commit itself to implement the programme.



A combination of all 3 theories was deemed the most suitable, as

- it ensures that the rewarded city has a high urban environment quality
- it does not exclude cities which inherited an overall deteriorated environment from previous regimes
- it rewards initiatives made by the city itself
- it ensures that cities commit to continue striving for environmental improvement in the future
- it guarantees that the rewarded city will act as a role-model and help spread best practice.

## 2.2 Indicator areas

Evaluation was based on the following indicator areas:

- Local contribution to global climate change
- Local transport
- Availability of local public open areas
- Quality of local ambient air
- Noise pollution
- Waste production and - management
- Water consumption
- Waste water treatment
- Environmental management of the local authority
- Sustainable land use

The indicator areas were inspired by the 10 European Common Indicators developed by the EU Commission, DG Environment and the European Environment Agency<sup>1</sup>, and the indicators developed as part of the so called Aalborg process<sup>2</sup>.

Whereas the 10 European Common Indicators and the Aalborg Indicators include the full sustainability concept, the indicators proposed above only focus on the environmental aspects.

## 2.3 Evaluation panel

The evaluation panel consists of members with internationally recognised expertise within each of the areas covered by the indicators, and a representative from the EU Commission, DG Environment.

### 1. Local contribution to global climate change

Dr Bert Metz, Fellow at the European Climate Foundation and former Co-chairman of the IPCC Working Group on Climate Change Mitigation  
[bert.metz@europeanclimate.org](mailto:bert.metz@europeanclimate.org)

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<sup>1</sup> [http://ec.europa.eu/environment/urban/common\\_indicators.htm](http://ec.europa.eu/environment/urban/common_indicators.htm)

<sup>2</sup> <http://status-tool.iclei.org/content.php/demo>



**2. Local mobility and passenger transport**

Dr Henrik Gudmundsson, Senior Researcher at the Technical University of Denmark, Department of Transport  
[hgu@transport.dtu.dk](mailto:hgu@transport.dtu.dk)

**3. Availability of green areas open to the public**

Ms Birgit Georgi, Urban Issues, European Environment Agency  
[birgit.georgi@eea.europa.eu](mailto:birgit.georgi@eea.europa.eu)

\* Mr Ronan Uhel from the EEA was responsible for this indicator in the 1<sup>st</sup> evaluation round

**4. Quality of local ambient air**

Dr Matthias Ketznel, Senior researcher at the Danish National Environmental Research Institute  
[mke@dmu.dk](mailto:mke@dmu.dk)

**5. Noise pollution**

Mr J. Luis Bento Coelho, Associate Professor, Instituto Superior Técnico (TU Lisbon), Portugal  
[bcoelho@ist.utl.pt](mailto:bcoelho@ist.utl.pt)

**6. Waste production and management**

Mr P.J.Rudden, Director of the Irish consultancy RPS  
[pj.rudden@rpsgroup.com](mailto:pj.rudden@rpsgroup.com)

**7. Water consumption and****8. Waste water management**

Ms Beate Werner, Head of the Water and Agriculture Group at the European Environment Agency  
[beate.werner@eea.europa.eu](mailto:beate.werner@eea.europa.eu)

**9. Sustainable management of the local authority**

Ms Maria Berrini, Director of the consultancy Ambiente Italia  
[maria.berrini@ambienteitalia.it](mailto:maria.berrini@ambienteitalia.it)

**10. Sustainable land use**

Ms Birgit Georgi, Urban Issues, European Environment Agency  
[birgit.georgi@eea.europa.eu](mailto:birgit.georgi@eea.europa.eu)

\* Mr Ronan Uhel from the EEA was responsible for this indicator in the 1<sup>st</sup> evaluation round

**Communication & Dissemination programme**

Ms Thea Pieridou, Information and Communication Officer, DG ENV  
[thea.pieridou@ec.europa.eu](mailto:thea.pieridou@ec.europa.eu)



## 2.4 Peer review

It is important to note that a peer review was carried out for both evaluation rounds. All evaluation panel members assessed their respective indicators, and each indicator was also assessed by a second panel member. The peer review ensured that the main evaluator looked at his/her assessment again if there were any serious inconsistencies between the two evaluations. It also rendered the whole evaluation procedure more credible.

Therefore, the responsibility for assessing each indicator was as follows:

- Local contribution to climate change: Dr Metz / Dr Gudmundson
- Local Transport: Dr Gudmundson / Mr Uhel for the 1<sup>st</sup> evaluation round and Ms Georgi for the 2<sup>nd</sup> evaluation round
- Availability of green areas open to the public: Mr Uhel for the 1<sup>st</sup> evaluation round and Ms Georgi for the 2<sup>nd</sup> evaluation round / Ms Berrini
- Quality of local ambient air: Dr Ketznel / Dr Metz
- Noise pollution: Mr Coelho / Dr Ketznel
- Waste production and management: Mr Rudden / Ms Berrini
- Water consumption: Ms Werner / Mr Rudden
- Waste water treatment: Ms Werner / Mr Rudden
- Environmental Management of local authorities: Ms Berrini / Ms Werner
- Sustainable land use: Mr Uhel for the 1<sup>st</sup> evaluation round and Ms Georgi for the 2<sup>nd</sup> evaluation round / Mr Coelho

## 2.5 First evaluation round

In the first evaluation round, the applicant cities described the results achieved, the measures taken and the short and long term commitments for each indicator, as well as their proposed programme of actions and events to disseminate experiences and best practice. The description was limited to max. 3000 words per indicator area. (In the first round no documentation was requested). Each member of the panel evaluated the information with respect to his/her respective indicator area and gave scores for each city in relation to each of the indicators.

Thirty-five cities with more than 200,000 inhabitants applied covering 17 European countries. The applicant cities included major European capitals such as Stockholm, Copenhagen, Lisbon, Prague, Vienna and Vilnius, as well as large and small cities, such as Hamburg and Freiburg respectively.

The applicant cities include:

- |                           |                      |
|---------------------------|----------------------|
| • Amsterdam, Netherlands  | • Hannover, Germany  |
| • Bordeaux, France        | • Helsinki, Finland  |
| • Bremen, Germany         | • Kaunas, Lithuania  |
| • Bristol, United Kingdom | • Łódź, Poland       |
| • Cluj-Napoca, Romania    | • Magdeburg, Germany |
| • Copenhagen, Denmark     | • Malmö, Sweden      |
| • Dublin, Ireland         | • Murcia, Spain      |
| • Espoo, Finland          | • Munich, Germany    |
| • Freiburg, Germany       | • Münster, Germany   |
| • Hamburg, Germany        | • Oslo, Norway       |





- Pamplona, Spain
- Prague, Czech Republic
- Riga, Latvia
- Rotterdam, Netherlands
- Sabadell, Spain
- Stockholm, Sweden
- Tampere, Finland
- Toruń, Poland
- Valencia, Spain
- Vienna, Austria
- Montpellier, France
- Vilnius, Lithuania
- Vitoria-Gasteiz, Spain
- Zaragoza, Spain

**Award criteria:**

For each of the 10 proposed **indicator areas**, the evaluation panel assessed the following data:

- Achievements relating to the present situation  
(max. 5 points)
- Measures taken by the local authority  
(max. 5 points)
- Short and long term commitments  
(max. 5 points)

Total number of points per indicator area: 15 points

**Effective and interesting measures** not covered by the 10 indicator areas may have been implemented in a city. In order not to exclude such measures, the evaluation panel also evaluated any additional measures provided by the city applicant:

- Additional measures  
(max. 10 points)

Total number of points attributed to additional measures: 10 points

For the criterion **communication & dissemination programme**, the evaluation was based on the following:

- Content and proposed effort  
(max. 10 points)
- Structure of overall programme / Completeness  
(max. 10 points)
- Creativity / Originality of ideas  
(max. 10 points)

Total number of points attributed to communications: 30 points

The eight cities with the highest scores were short-listed and went to the second evaluation round. See Annex I. It is important to note that cities applied for both 2010 and 2011 and all applicants were evaluated in the same way.



## 2.6 Second evaluation round

In the second evaluation round, the eight cities with the highest scores were asked to forward additional detailed documentation on their achievements and future commitments in the form of action plans, regulations, budgets, measurements of various emissions, statistical information etc.

The eight short-listed cities include:

- Amsterdam
- Bristol
- Copenhagen
- Freiburg
- Hamburg
- Münster
- Oslo
- Stockholm

A meeting with the eight short-listed cities was also organised as part of the second evaluation round with a threefold objective:

- a) Allowing the evaluation panel to meet the team responsible for all the effort that had gone into the application, their commitment and enthusiasm;
- b) Giving the eight cities the opportunity to present their application to the panel in person. The cities had 20 minutes to give a presentation arguing why their respective city should and can be a European Green Capital. Cities were asked to focus on the overall performance and vision of their work;
- c) Allowing the evaluation panel to ask questions / clarifications from the city's representatives about the city's performance in relation to the indicators and their communication programme.

### **Award criteria:**

Based on the additional information submitted by the cities and their presentations, the evaluation panel made their final assessment based on the following award criteria.

For each of the 10 proposed **indicator areas**, the evaluation panel assessed the following data:

- Achievements relating to the present situation and measures taken by the local authority  
(max. 10 points)
- Short and long term commitments  
(max. 5 points)

Total number of points per indicator area: 15 points



For the criterion on **communication & dissemination programme**, the evaluation was based on the following:

- Content and proposed effort  
(max. 10 points)
- Structure of overall programme / Completeness  
(max. 5 points)
- Creativity / Originality of ideas  
(max. 5 points)

Total number of points attributed to communications: 20 points

For the presentation of the **overall performance and vision** of the city, the evaluation was based on the following:

- Technical presentation and Q&A session  
(max. 5 points)
- Vision: ambitious vision for the future based on current credible performance  
(max. 5 points)
- Stakeholder involvement and sense of leadership  
(max. 5 points)
- Integration of programmes and overall holistic approach  
(max. 5 points)

Total number of points attributed to the presentation and the cities' overall performance and vision: 20 points

Based on the application, the additional information and the meeting with each of the eight shortlisted cities, the expert panel finished its evaluations and gave scores to each city thus coming to a conclusion on which two cities should be selected as the European Green Capitals for 2010 and 2011. See Annex II.



### 3 Final Recommendations

The evaluation panel has made its final assessment with regards to all eight short-listed cities. It is clear that all candidates have many impressive achievements and strong ideas for improved urban environment as well as future ambitious projects. Their work is overall outstanding and the evaluation panel has agreed that all eight cities have the potential to become a European Green Capital and an excellent role model for other cities all over Europe.

The final evaluation and summary table of scores (see Annex II) shows that Hamburg and Stockholm come out first and second respectively. *As a result, the evaluation panel recommends that Hamburg is selected as the European Green Capital of 2010 and Stockholm as the European Green Capital of 2011.*

#### 3.1 Hamburg

The city of Hamburg, with a population of about 1.8 million people, faces many metropolitan challenges but also brings together many comprehensive approaches, policy commitment and the necessary funding needed to resolve them. On the whole, it has an integrated and participative planning and a strong green vision. Building on the process of Local Agenda 21 and with efficient measures, actions and effective awareness raising programmes already in place, the quality of local ambient air is very good and there are excellent targets, results, future plans and monitoring with respect to climate change. It is worth mentioning that Hamburg has set ambitious climate protection goals such as reducing its CO<sub>2</sub> emissions by 40% by 2020 and by 80% by the year 2050. In addition, the Hamburg Climate Protection Act contains a special cost-efficiency benchmark for energy-saving measures in public buildings such as programmes for lamps, boilers and refrigerator replacement. Indeed, Hamburg has replaced over 200,000 conventional lamps in more than 400 public buildings, saving energy and €3.4 million per year and over 600 boiler systems have been replaced with modern condensing boilers in recent years (an investment of €18 million). CO<sub>2</sub> emissions per person have been reduced by about 15% compared to 1990, with annual energy savings of some 46,000 MWh, a major achievement for a big city.

Furthermore, the integrated waste management system with high levels of source separation of individual materials and energy recovery works very well and the city also has a very good performance in water consumption, metering and leakage. Concerning water consumption in particular, high investments in infrastructure and incentive pricing have been introduced, awareness campaigns have been launched and innovative practices on separated urinal collection in public toilets have been implemented. Future plans include more efforts on separated rain water management.

At present, the city has also achieved high environmental standards and good performance in terms of cycling and public transport indicators. Nearly 100% of citizens have high class public transport within 300 meters. There is also a systematic structure of green spaces which are easily accessible to citizens.



Hamburg has developed a meticulous, well-structured communication strategy and a very attractive programme of events for well chosen target groups involving all the city's stakeholders. This strong networking and enthusiasm will provide a unique platform for EU dialogue. The city of Hamburg is also proposing to launch a "train of ideas" whereby interested cities within the European Green Capital Award network 'own' a wagon and promote their respective green ideas, achievements and future plans. The train will thus travel around Europe spreading experiences and best practice in an innovative way. A wide range of communication tools will also be used throughout their communication efforts and many other creative ideas have been proposed such as the production of a commemorative coin, a vote for the most environmentally friendly hotel, competitions, adoption of Hamburg's Environmental Statement, participation in Expo Shanghai 2010 and active youth involvement. An agency will be set up to help run this ambitious European Green Capital 2010 communications programme and the city has a budget of €1 million for 2009 and will have a substantial budget in 2010.

### **3.2 Stockholm**

Stockholm has just under 800.000 citizens but is growing at an important rate. The city council's holistic vision combines growth with sustainable development and includes the ambitious target of becoming fossil free by 2050. Overall, Stockholm can be depicted as a city with very strong green programmes and measures across the board in all relevant areas, supported by solid budgets. A propos, the 6th consecutive Environmental Programme (2008-2011) lays a solid foundation for Stockholm's environmental work. Equally important, environmental aspects form an integral part of the city's Integrated Management System and consequently, environmental issues are successfully included in the city's budget, operational planning, reporting and monitoring. Results from the final report show that nearly 80 % of all objectives have been reached, or have a positive progress.

The city has an excellent structure of green and blue areas and in fact, 95% of the population live only 300 m away from green areas, thus catering for recreation, swimming, boating, better well being, water purification, noise reduction, enhancement of biodiversity and ecology. The future upholds an extensive list of measures for new green area development, further improvement of existing ones and creation of beaches for bathing amongst others. Clear and effective noise management and subsequent achievements are also well described, documented and supported financially.

Furthermore, Stockholm has a very well functioning integrated waste system with many innovative developments in the transportation of waste that assist towards high recycling, especially of bio-waste, using underground 'vacuum controlled systems'. The Waste Management Administration in Stockholm is assigned to raise awareness on waste reduction, source separation and recycling. There is an ongoing assessment of the benefits and effectiveness of the various campaigns - reduction of the amount of waste generated is one of the most important challenges within the environmental field and in accordance with the waste hierarchy of Stockholm, this is the primary environmental objective for waste management.

It is also essential to note that the local transport system in Stockholm has taken several positive steps towards sustainability during the last ten years. A very broad and exten-



sive range of measures have been adopted including a successful and pioneering Congestion Charging system with good documented results in terms of reduced car use, increase in the Public Transport share including cycling and reduced emissions. As far as CO<sub>2</sub> emissions are concerned, there has been a 25% reduction in per capita emissions since 1990, bringing the emissions to about half the national Swedish average. In addition, Stockholm witnesses relatively low transport emissions.

Finally, through its well-conceived communications strategy, Stockholm has shown its commitment and eagerness to share their own experiences and act as inspiration to other cities. They have developed a fully-fledged communications strategy, starting with an overarching objective and a number of communication objectives, followed by identification of target groups and key messages as well as outlining a wide range of communication tools. Strong networking and involvement of local and international stakeholders will ensure that Stockholm and other cities invest in further efforts and will boost awareness across Europe. A separate organisation will be set up to run the communications programme like a Secretariat.



## 4 Detailed Evaluation of Shortlisted Cities

### 4.1 Evaluation Report for Amsterdam

Original year of application 2010  
Application to be considered for both years: No

#### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>10.5</b>
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##### Main Evaluator

Moderately high emissions per capita; but still increasing since 1990. High share of green electricity amongst households. Strong set of measures across the board, but with limited activity so far in efficiency improvement of residential buildings and climate awareness raising and education. Very strong targets, plans, budget and evaluation.

##### Co-Evaluator

Agreement with main evaluator

#### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>13</b>
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##### Main Evaluator

Amsterdam has a transport situation which is very favourable for bicycles and public transport and restrictive to individual motorized transport in the city, without aiming to restrict overall mobility. In the city of Amsterdam bicycles are the most commonly used means of transport. In addition, the city has a public transport fleet which is 100% low emissions. Hence performance on the four transport sub-indicators for the present situation (cycle lane km/inh, public transport accessibility, car share for short trips, and low emission buses) is among the best of the candidate cities. Successful measures to enhance cycling further and reduce car traffic to city, starting from already high level have been introduced in recent years. A very wide range of transport measures are planned or currently being implemented, including further expansions of bicycle and public transport networks, road charging experiments anticipating the national scheme, more park and ride facilities, further parking restrictions, priorities for parking to car sharing organisations, environmental zones, incentives to scrap polluting cars, stimuli to use electric cars, electric support for pleasure craft use, and more. Also freight transport and waste transport are considered. Overall Amsterdam has an impressive transport policy legacy and promising outlooks. The application is well documented and supported.

##### Co-evaluator

Impressive: more bicycle than car use - care use decreased; 90% of the city save to cycling; very good access to public transport; 90% of residents within 400m to car sharing!; in the future continuation, upgrading; also road pricing, environmental zones; promotion measures for electric vehicles; supply cargo tram inner-city hotels shops ... all very ambitious and creative.

**3. Availability of green areas open to the public**

Main Evaluator: Birgit Georgi

Co-Evaluator: Maria Berrini

<b>Score</b>	<b>12.5</b>
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**Main Evaluator**

Starting at a very high level and keeping going; very high accessibility of green and blue areas; combined with walking and cycling network; positive also: more functions of green areas considered than recreation: climate change, water storage, air pollution; innovative on making the link urban and rural visible; little weakness on future commitments: continuing the measures but not really concrete in the application

**Co-evaluator**

Multifunctional green areas, a connected system, wedge structure, children's farms, mini parks (carefully laid out, small, recreational), border gardens, no streets without trees, waters as additional natural areas. In 2007, 70.7 percent of Amsterdam residents lived within 300 metres of a green public space in excess of 1 hectare. And if we consider water as a public space this amounts to 96.4 percent. Over a total area of 219.4 square kilometres Amsterdam has 110 square kilometres of green area (57.7 green areas and 52.7 water). Policies: subsidies, Plan, Main Green network, specific projects, vision up to 2040.

**4. Quality of local ambient air**

Main Evaluator: Matthias Ketzler

Co-Evaluator: Bert Metz

<b>Score</b>	<b>15</b>
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**Main Evaluator**

Long list of very detailed and comprehensive measures and plans. Long term monitoring network and good information of public. Link to Living Environment Atlas??

**Co-Evaluator**

Increased points on measures taken because no real difference with 5 point cities

**5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzler

<b>Score</b>	<b>10.5</b>
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**Main Evaluator**

Achievements not clear or related to measures taken. Action plan not well explained (not too clear). No information on allocated budget.

**Co-evaluator**

Agreement with main evaluator

**6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

<b>Score</b>	<b>12.8</b>
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**Main Evaluator**

Far reaching powers for waste prevention - 'Platform for Information about Waste Products'. Also proposal for 'Cradle 2 Cradle' for closed loop recycling of materials and energy including





'nutrients' to 'products' to retain intrinsic value. No household waste going to landfill but City is hugely dependent on waste incineration facilities which are the largest in Europe. There is potential to extend the district heating project off the Waste to Energy plant. Waste prevention and minimisation requires a renewed focus to try to uncouple waste generation from economic growth.

**Co-Evaluator**

Agreement with main evaluator

**7. Water consumption**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>11.5</b>
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**Main Evaluator**

Mid-range consumption and metering, low leakage. Incentive pricing and good CC preparedness, but only some awareness campaigns and infrastructure efforts carried out. Further commitments focusing on CC and awareness, but no explicit financial commitments.

**Co-evaluator**

High degree of metering and relatively low leakage. Quality in high and plans being drawn up to comply with new EU Water Directive. Also plans for a differential system for 'most intelligent water consumption' together with raising public awareness.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>10.5</b>
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**Main Evaluator**

Very good performance, but still potential in WW re-use and cc preparedness/overflow capacities. No further commitments demonstrated which might be understandable due to the high achievements, but cannot be given many points. However the WW commitments are also mentioned under water consumption.

**Co-evaluator**

New Wastewater Treatment plant and 75% of city connected to separate system. Discharges meet the local water management plans. Charging system for wastewater disposal covered 100% by pollution tax. Sludge is incinerated in local waste to energy plant.

**9. Sustainable management of the local authority**

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

<b>Score</b>	<b>13</b>
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**Main evaluator**

Overall, integrated, participated Planning and Vision: An Environmental integrated Policy plan every 4 years / 1 year programme / participated / periodical reporting. Vision: a municipal energy strategy, toward 2040. AIM: generate renewable energy for its own needs. EMS/Certification: 2 municipal utilities (1700 and 480 employees) and a District (Council? 50.000 ab) have ISO 14001. The Port has a specific EMS (not EMAS but EU recognised). In 2007 a campaign was launched aimed at encouraging hotels and restaurants to adopt a



'Green Key' environment certificate. Commitment: all municipal organisations are ISO 14001. Sustainable purchasing : since 2004/ specialist in team for the framework contracts / help desk, guidelines, workshops / aims all contract by 2010 have environment and social criteria as standard. Data: a recently concluded catering contract resulted in an increase in the use of regional products, and at least 40% organic products. Purchasing green electricity for the whole organisation (including public transport and street lighting) since 2006. Since 2007 almost all categories have been considered. Commitment: 100% sustainable procurement in 2010. Since 2009 the more sustainable proposed building plans will be the more chances project developers have.

Municipal Buildings: Energy consumption, monitoring and retrofitting. No full data but 40 on 200 municipal buildings are on line monitored (fully expanded by 2009) Since 2004 Project 'ten-year payback time measure': all (energy) measures that pay for themselves within ten years are mandatory for municipal buildings. In the new district office Zuideramstel, for instance, completed in December 2008, 70 to 80 percent energy can be saved compared to an average office. It uses heat and cold storage, advanced insulation techniques (an Energy Performance Coefficient of 1.0). Oost Watergraafsmeer district office and school achieves an EPC of 0.6 (completed in January 2009). In 2008, the city council carried out the obligation of a zero-measurement to achieve Visible Energy label for all public municipal buildings with a surface area of 1000 m<sup>2</sup> or more from 1 January 2009. After that a custom-made advice to make the buildings carbon neutral by 2015. Many innovative actions planned for energy efficiency and renewable. Commitment: all municipal buildings to be CO<sub>2</sub> neutral by 2015 (appointing measures and external energy auditors and advisors).

#### **Co-evaluator**

Indeed quite good achievements, but other cities have slightly more convincing results. For the short and long-term commitments Amsterdam has indeed the most convincing vision. However, I would hesitate to give them full points, as I am missing financial perspective to support this vision.

### **10. Sustainable land use**

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

<b>Score</b>	<b>11</b>
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#### **Main Evaluator**

Very compact city - high densities inner city and increasing densities when renovating areas; very high densities in built up areas; brownfield generation; increase the mix of areas; preserving the edges as ecological /recreational corridor; impressive: no urban sprawl problem; continuation of the measures in the future to improve the high compactness and quality even more and keep people in the city: cooperation with Amsterdam metropolitan area on the placement of new dwellings; new sites easy accessible by public transport, cycling, green areas; all in all a very good status but on measures relative conventionally often not very concrete.

#### **Co-evaluator**

Agreement with main evaluator

### **11. Dissemination programme**

Main Evaluator: Thea Pieridou

<b>Score</b>	<b>15</b>
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Quite well thought out programme, emphasizing sustainable mobility; information sharing & cooperation between local governments and within the city; stress on youth; campaign & actions for the general public; GRI conference and other conferences to exchange best practice;



digital knowledge platform. Overall realistic programme of communications; use of various communication tools (events, conferences, ICT, campaigns, publications, strong network of partners/network, projects). A number of original ideas: an international academy for sustainable mobility; youth activities; parade of clean vehicles.

## **12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>15</b>
<b>Total Score</b>	<b>150.3</b>



## 4.2 Evaluation Report for Bristol

Original year of application 2010  
 Application to be considered for both years: Yes

### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
 Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>7</b>
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#### Main Evaluator

Moderately high emission per capita and decline between 2005 and 2006 (no 1990 data to compare). Low share of renewable electricity. Strong achievements in low emission buildings, waste management and climate education; reasonable performance in transport; not much effort in low carbon energy supply/ district heating/CHP.

#### Co-evaluator

Agreement with main evaluator

### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
 Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>8</b>
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#### Main Evaluator

The present performance on the selected indicators for Bristol is relatively low compared with other candidates. The bicycle network appears extensive, but is more limited when only segregated lanes are considered, even if significant recent efforts have increased the networks substantially. Comparably high share of car for short trips, low share of population with near access to public transport and a fairly low degree of low emission public transport vehicles in the fleet. Positive measures have been taken in areas such as bus corridor demonstrations, and future plans cover a fairly broad palette of efforts to tackle in particular congestion, presented and widely documented in Local Transport Plan (LTP) material. Some parts of the visions and plans appear contingent or not fully committed at this point with some open questions, while there are also areas (such as cycling strategy) with clear and transparent priorities and funding allocations. It is commendable that plans have been elaborated jointly with neighbouring communities, and also a plus that central government has given Bristol good marks for its LTP. Some promising results in freight distribution and the city's efforts to become a national cycling city represents additional value.

#### Co-evaluator

Despite promotion of cycling still high share of car mobility; accessibility of public transport medium; reduction of car traffic in the centre; some interesting measures on awareness raising and freight transport; for the future joint local transport plans; demand management; link to land use planning; increasing cycling by 30% (currently 6%) overall a few interesting measures but relatively weak.

### 3. Availability of green areas open to the public

Main Evaluator: Birgit Georgi  
 Co-Evaluator: Maria Berrini

<b>Score</b>	<b>12</b>
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#### Main Evaluator

High value of public green space per capita (38m<sup>2</sup>); although, no figures about distances;



innovative: standards and strategy for green space which consider also quality of green space; positive also: research on customer demand, inclusion of equality impacts, civil engagement in maintenance, cooperation with wildlife projects; long term planning; strong commitments for the future, establishment of more nature reserves, focus on quality; some weakness: no mentioning of climatic or air quality related aspects of green areas

#### **Co-evaluator**

Natural areas (gorge, riverside. wood), playgrounds, Historical parks. Extension: 1808 ha / 38mq/inhab. Policies: green standard (quality, distance, quantity); Research, Forum, Park Improvement Programme, Lottery and private sponsoring, Biodiversity Action Plan, Green areas Plan

#### **4. Quality of local ambient air**

Main Evaluator: Matthias Ketzel

Co-Evaluator: Bert Metz

<b>Score</b>	<b>14</b>
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#### **Main Evaluator**

Very ambitious measures and plans (AQAP, LTP), excellent web information. Many monitoring stations and large intensive campaigns with NO2 diffusion tubes. Lead city in UK. Missing data for other years than 2007.

#### **Co-evaluator**

Agreement with main evaluator

#### **5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzel

<b>Score</b>	<b>9,5</b>
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#### **Main evaluator**

Stronger focus on managing neighbour noise than outside noise. Achievements or real results from community surveys not clear. Interesting commitment on noise mapping, but perhaps too early to use it as a noise management tool. Very little information on future commitments (very general, non-specific action plan). No information on budgets.

#### **Co-evaluator**

Here much focus on the noise map, public survey and other tools. Real measures a bit missing. Assume that noise action plan has all the right measures as also in air pollution.

#### **6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

<b>Score</b>	<b>10.2</b>
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#### **Main Evaluator**

Many awareness programmes and long term target of 'zero waste' but little evidence of how this will be achieved. Specific awareness programmes for schools and flats. 'Real Nappy Project' promoting the use of re-useable cloth nappies. A well functioning waste management plan and operational system but while recycling levels are very encouraging, the lack of energy recovery results in the highest landfill rate of the shortlisted cities. Very ambitious plans in the future to provide energy recovery capacity and to improve household recycling generally.

**Co-evaluator**

Many awareness programmes and long term target of 'zero waste' but little evidence of how this will be achieved. Specific awareness programmes for schools and flats. 'Real Nappy Project' promoting the use of re-useable cloth nappies. A well functioning waste management plan and operational system but while recycling levels are very encouraging, the lack of energy recovery results in the highest landfill rate of the shortlisted cities. Very ambitious plans in the future to provide energy recovery capacity and to improve household recycling generally.

**7. Water consumption**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

**Score**

**9.5**

**Main evaluator**

High consumption and leakage, low metering, no incentive pricing, but some good efforts in network rehabilitation, leakage management, efficiency measures and CC preparedness. Future commitments also financially on awareness, efficiency, infrastructure but not on metering (general UK problem) or other innovative measures.

**Co-evaluator**

Relatively high leakage but very proactive programme to reduce. Number of households with meter doubled in past 10 years. Bristol is centre of excellence in UK for leakage management. though UK leakage rates generally high. CO<sub>2</sub> impact being assessed and factored into new Draft Business Plan 2010-2015.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

**Score**

**7**

**Main Evaluator**

The only city with secondary treatment, no separated rain water management, but at least good overflow capacity and some thoughts on UWWTP energy efficiency, even if unfortunately land fill use (fertiliser) is allowed (minus point). Fine further aspirations on energy efficiency, separated systems, WFD and CC adaptation, but financial commitments and real innovation are not eminent.

**Co-evaluator**

100% of city connected to modern wastewater treatment works and compliance with WWTD proposals to produce Surface Water Management Plan for the city and to improve intermittent discharges in the greater Bristol area.

**9. Sustainable management of the local authority**

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

**Score**

**13**

**Main Evaluator**

Overall, integrated, participated Planning and Vision: first environmental policy in 1999, and revised it in 2003. Specific targets and policies are defined as Climate Protection & Sustainable Energy Strategy / Sustainable Procurement / Eco-School scheme. Eco-Impact Assessment: all key council decisions are subject to environmental appraisal, using the principles of Strategic Environmental Assessment. Local Authority Energy Finance Scheme / loans are repaid using the annual energy/cost savings..... As repayments are recycled back into the fund



they become available for re-investment, creating a self-sustaining fund. 74 LAEF projects, with a total investment value of £723,000 (...detailed data) The council has set a series of targets for all environmental issues (data in the application). Bristol City Council aims to be carbon neutral (meeting its energy needs by none fossil fuel sources directly and locally) by 2026. Now is working towards being a "low carbon city with a high quality of life". Under this programme it plans to cut city-wide carbon emissions by 2% per year. An annual environmental statement verified by external audit. An internal record system which is computer based and assessors can inspect action taken at a team level, as well as corporately. For Bristol Green Capital aspirations see the Bristol Partnership Green Capital Vision Statement. EMS/Certification: Currently six out the seven council departments are registered to the Eco-Management and Audit Scheme and ISO14001. Commitment: The one remaining department will be completed by 2009. Eco-School scheme - Currently 45 schools are registered with 13 achieving the highest standard – the green flag. Sustainable purchasing: data for some products, e.g. over 60% of paper purchased is from recycled or FSC sources; 100% of electricity for street lighting is from renewables. Policies and Targets have been set. GPP is binding for some products or promoted for others, by means of credits and incentives to contractors. Commitments: Targets and measures have been set for increasing the use of many Green products. Municipal buildings: Energy consumption monitoring is regularly available and a target is set. In 2007/8, Bristol spent over £10 million on energy related works for council housing (29,000 houses): The improvement in energy efficiency is evident. All certified. Data in the application. A pilot Energy Finance Scheme is running (a self-sustaining fund) Investing funds on: Biomass heating systems in all new schools. • Combined Heat and Power Plants in Council Tower blocks. • Solar heating and electricity units in Area housing Offices and on a growing number of schools.

#### Co-evaluator

Agreed on highest scores between cities in same rank as Freiburg and Münster; However, the short and long-term commitments are not specified in separate but mentioned throughout the chapter. The financial perspective seems to be covered by the self-sustaining fund established.

### 10. Sustainable land use

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

<b>Score</b>	<b>10</b>
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#### Main Evaluator

On the way towards more compactness, very positive: nearly all new offices and light industries and most residential developments in brownfield areas, but less for industrial and warehouse development; only medium population density related to other cities density but dwellings in new housing areas have doubled over the last decade; positive further: protection of the green belt; in the future continuation; less development on greenfields; positive also: growing consideration of climate change impacts and cooperation with hinterlands on avoiding urban sprawl

#### Co-evaluator

Agreement with main evaluator

### 11. Dissemination programme

Main Evaluator: Thea Pieridou

<b>Score</b>	<b>20</b>
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#### Main Evaluator

Excellent proposal, well-structured, detailed, creative, including all possible elements from a



to z. Including opening conference, digital communications and all traditional means of communications (print media, radio & TV, ambassadors, events, conferences, branding) hand-over involving future decision-makers i.e. youth. Coherent, ambitious, complete package of events and actions from a-z. Lots of creative elements included in the proposal: green capital channel, cutting edge web based technology like blogging, twittering in order to achieve community engagement, virtual soap opera, eco-tour, handover.

## **12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>16</b>
<b>Total Score</b>	<b>136.2</b>





### 4.3 Evaluation Report for Copenhagen

Original year of application 2010  
Application to be considered for both years: Yes

#### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>8.5</b>
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##### Main Evaluator

Moderately high emission per capita and significant decline since 1990. Low emissions from transport. Strong achievements in improving renewable energy use, transport, district heating/CHP and climate education and reasonable programmes in low emission buildings and waste management. Strong emission reduction targets, but very limited information on budgets and specific measures; no clear monitoring and evaluation.

##### Co-evaluator

Agreement with main evaluator

#### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>12</b>
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##### Main evaluator

Good performance on indicators today, continued efforts to build further on existing strengths especially in the area of cycling, with ambitious targets (to have 50% of commuters to use bicycles by 2015), involving some innovative efforts, including 'green wave' traffic lights for cyclists. Documentation for public transport accessibility is less detailed. Significant improvements (50-60%) to bus fleet emissions over the last 10 years while still some way to 100% low emission. Two metro lines have been established in recent years, more lines are politically agreed for the future, where 85 per cent of those living in the inner city will have less than 600 metres to go to their nearest metro or local train station. Significant transfer of passengers mostly from bus to metro (leading to further decrease in bus transport and hence bus emissions), but also shifting a limited number of car drivers is anticipated. An environmental zone has been introduced, and a new generation parking policy with increasing charge areas for commuters is implemented. Broad range of measures in future plans, including more metro, high profile cycling plans, street conversions, and extension of environmental zone. Congestion charging proposed but not implementable at this point. Some, but limited documentation of commitments provided.

##### Co-evaluator

High share of cycling; high accessibility of public transport; modern metro system; strict parking policy; ambitious target on cycling (50% by 2015); in the future also more focus on walking; substantial extension of metro system planned; congestion charge considered for the future.

#### 3. Availability of green areas open to the public

Main Evaluator: Birgit Georgi  
Co-Evaluator: Maria Berrini

<b>Score</b>	<b>10</b>
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**Main Evaluator**

Good situation of green and blue areas but in relation to the other cities only medium accessibility of green and blue space (less population within 300m distance); positive: all large parks protected, quality priorities on green areas; very positive: achieved high water quality in the harbour which allows swimming in the city and large construction of city beaches; planned is to improve the accessibility of green public space up to 90% of the population within 15 minutes walking distance (which is much more than 300m) and 14 more smaller parks, more trees - it would still remain under the accessibility of other participating cities; except from swimming in the harbour no really innovative approaches, no relation to climatic and other functions mentioned.

**Co-evaluator**

Today app. 79% of the citizens lives within a 300 m. Total area of green and blue areas (hectares), 2007: 1.416. Policies: a park policy document (protection and development of city green space, green structure initiatives and park quality priorities), funds. Commitments: 90 % should be able to walk to a park, nature area or harbour swim within 15 minutes; Inhabitants in Copenhagen visit city parks, nature areas and harbour swims should double.

**4. Quality of local ambient air**

Main Evaluator: Matthias Ketzel

Co-Evaluator: Bert Metz

**Score**

**12**

**Main Evaluator**

Not much change to round 1. Good measures regarding road traffic and wood stoves. No web links or tables/graphs given?! wrong data for NO2-Jagtvej reported.

**Co-evaluator**

Agreement with main evaluator

**5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzel

**Score**

**10.5**

**Main Evaluator**

The information provided in the 2nd. Round is the same as that sent for the 1st. Round. Achievements not too clear. Measures related mostly to noise from transportation. A noise management plan is mentioned but not adequately or extensively explained.

**Co-evaluator**

Agreement with main evaluator

**6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

**Score**

**12.6**

**Main evaluator**

Waste Reduction Target in 2012 Waste Management Plan to reduce waste by 10% by year 2012 through awareness programmes and use of 'exchange centres' for 'reuse'. No household waste is going to landfill but very high levels of incineration. More progress is needed on household waste recycling including Biological treatment. The 2012 Waste Management Plan seeks to improve the sustainable management of waste in Copenhagen under five separate headings: waste reduction, improved sorting, a future proof waste treatment system, innova-



tive waste solutions and tendering of future collection systems.

**Co-evaluator**

Agreement with main evaluator

**7. Water consumption**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

**Score**

**13.5**

**Main Evaluator**

Very good performance on consumption, metering and leakage. However, no CC preparedness in particular mentioned for the past achievements. Satisfactory further commitments on even further reduced consumption and increased awareness + efficiency, CC preparedness and maintenance. Fine innovative measures on usage of reclaimed water. Transparency on financial commitment could be better.

**Co-evaluator**

All properties metered by law. Leakage is low yet proactive leakage plan in place. Targets set for household and industrial consumption. Marked fall in consumption due to focus on water saving measures and economic instruments. Greater focus now on water reuse and rainwater harvesting. Plans for new future ground water collection systems. Very proactive awareness campaigns in place to save water.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

**Score**

**10**

**Main Evaluator**

Good performance, but P removal not top. Good prevention of storm water overflow but no real separated sewer system, energy efficiency mentioned, some water reuse. Further commitments mention on WFD, maintenance of pipes and some energy efficiency and CC aspects with some financial commitment, but no innovative rain water management, higher aspiration on energy efficiency or real innovative solutions.

**Co-evaluator**

New Wastewater Treatment Plan 2008 seeks to employ Sustainable Urban Drainage Systems (SUDS) policies in city sewer system. A substantial number of storm overflows have already been eliminated and most are planned to improve bathing water standards in the harbour area. Treatment plants are reasonably modern with nutrient removal. Future focus on energy consumption and carbon management aspects.

**9. Sustainable management of the local authority**

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

**Score**

**12.5**

**Main evaluator**

Overall, integrated, participated Planning / Vision: The municipality of Copenhagen citizen's council adopted the new environmental policy on 2003. Every four years the municipality approves an Agenda 21 plan which includes a description of the municipality's ambitions with regard to the environment and an environmental management system works. The Agenda 21 plan has been agreed and approved in 2008 together with citizens and industrial sector. In 2007, the municipality decided to set aside funds for a collective climate measures in 2008



and 2009. In continuation of this, DKK 63.2 million has been granted for a series of energy-saving projects. The municipal environmental report offers periodically data and results. EMS/Certification number of employees working at institutions with a certified environmental management system has more than doubled from 3,800 to 7,700 in 2007. 12,000 employees are working in institutions which are in the process of introducing environmental management. Goal to introduce EMS in all institutions by end 2008. Commitment: The Children and Youth Administration expect to be environmentally certified by the end of 2009. (more details on budget and tools in the application). Sustainable purchasing: 50 per cent of food consumption in the City's kitchens is organic (a total of 23 per cent of families purchase organic food) The city follows the requirements focusing on energy efficient purchase policies. All the City's major contracts follow these requirements, covering almost all the products groups. Electricity Savings Trust guidelines for electrical goods. Commitments: By the end of 2009, 60 per cent of food served in the municipal kitchens and canteens should be eco-labelled. By 2011, 75 per cent of food served in the municipal kitchens and canteens should be eco-labelled. Municipal buildings: Energy consumption. Recordings of energy consumption in Copenhagen's municipal buildings have been made since the 1990s. From 2004, electricity, water and heating usage figures were calculated across years. Investment plans were drawn up accordingly, e.g. in schools a 25 per cent saving on electricity and 15 per cent on heating during the 1990s was the result. Electricity consumption in the municipality of Copenhagen fell by 5 per cent between 2002 and 2006. Electricity consumption in 2006 was equivalent to an average of 50 kWh/m<sup>2</sup>. In the same period heating consumption fell by 7 per cent. Heating usage in buildings in 2006 was 150 kWh/m<sup>2</sup>. Records of energy consumption in 2007 show a continued downward trend. Copenhagen decided in 1998 to establish a central energy pool to finance energy-saving measures. Annual reports of consumption were instigated in municipal properties. Example/ "Project Energy Wheel" for schools, youth centres and clubs which was started in 1999 and ran until 2005. Half of the savings attained went to individual institutions whilst the rest was pooled in a fund to finance future measures. In 2000, 84 per cent of the municipality's large buildings conformed to the legal ELO standard. In 2006 new regulations were introduced and the ELO directive was replaced by EEO. Commitment: The municipality of Copenhagen is currently implementing EEO and expects to have passed a preliminary report on all properties over 60 m<sup>2</sup> by the middle of 2009.

**Co-evaluator**

Quite good achievements in medium range. Some short and long term commitments, but only the energy saving has a financial perspective.

**10. Sustainable land use**

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

**Score**

**11**

**Main evaluator**

Very positive: compact and high population densities, mixed use, around 80% of new developments on brownfields, greenfield development compact with excellent public transport connection; in the future even further improving this situation: further densification but maintaining sustainability and liveability in the city; positive: land use coordinated with transport planning; weakness: no consideration of climate and demographic changes mentioned; no convincing cooperation with hinterland on e.g. urban sprawl

**Co-evaluator**

Agreement with main evaluator

**11. Dissemination programme**

Main Evaluator: Thea Pieridou

**Score**

**10**



**Main Evaluator**

The proposal focuses on COP15 which will take place in Copenhagen in Dec 2009. It only describes what will be done during the run-up to the COP and during the climate change conference. Ex. climate summit for Mayors, Square activities. They only say that 'If Copenhagen is named the EGC, the city will ensure that Danes and the rest of the world know about it!' But there is no explanation on how this will be achieved. No real communication programme for 2010 nor 2011 if they win the award is developed; only what will be done during COP15 in 2009 with focus on climate. Mention of the use of the internet and organisation of public-related events ex. climate festival, using city space as showroom (Townsquare), networking/partners. Complete communications package for COP15 but nothing really specific on EGCA. Some creative elements for COP15 mentioned.

**12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>9</b>
<b>Total Score</b>	<b>131.6</b>



#### 4.4 Evaluation Report for Freiburg

Original year of application 2010  
Application to be considered for both years: No

##### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>9</b>
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##### Main Evaluator

High emission per capita, but 13% reduction since 1992. Low share of renewable electricity. Strong performance on CHP/district heating, low emission buildings and waste management; reasonable performance on renewable energy promotion (very strong solar programme, but impact limited) and transport. Very strong targets, budgets, specific measures and monitoring.

##### Co-evaluator

Agreement with main evaluator

##### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>12.5</b>
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##### Main Evaluator

Very good performance on the transport indicators, not least for cycle infrastructure. Long tradition for integrated and visionary planning and investments for alternative modes; significant accomplishment in the areas of public transport, cycling and pedestrianisation. At least 85% of buses qualify for low emission status. Significant expansion of tram network over last 10 years. Comprehensive long term plan (Transport Development Plan - TDP) adopted, involving significant analytical planning elements and specific targets, including assessments of transport impact of new developments and restrictions on development of shopping etc in 'open land'. Extra credit deserved for additional elements such as concern for aging population, and families with children, e.g. via 'proximity' principles, appointment of a 'pedestrian officer', and experiments with car (or parking) 'free' residential areas. The application is supported by substantial documentation on plans and commitments

##### Co-evaluator

High share of cycling, low on cars; high accessibility of public transport; innovative car free projects; integrating gender aspects, demographic development; integrated transport and urban planning.

##### 3. Availability of green areas open to the public

Main Evaluator: Birgit Georgi  
Co-Evaluator: Maria Berrini

<b>Score</b>	<b>13</b>
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##### Main Evaluator

High accessibility of green and blue space; very positive: linked to forest management and integration of agricultural aspects, attractive and variable places for children, green areas within new areas planned with a customer approach and innovative participatory approaches (Blockinnenbereiche), holistic approach and innovative solutions for the future like green roofs also for energy efficiency, green on tram tracks for noise reduction, focus on nature ex-

perience; education, awareness projects.

#### **Co-evaluator**

6,960,000 m<sup>2</sup> of publicly accessible green areas, 31.27 m<sup>2</sup> per inhabitant, that represents an increase of around 50% in the quantity of parks, children's play areas and local recreation as against ten years ago. The areas of forest (51,000,000 m<sup>2</sup>, representing 232 m<sup>2</sup> of forest per inhabitant), the cemetery (540,000 m<sup>2</sup>), the artificial lakes (905,000 m<sup>2</sup> for a total of 11 artificial lakes) and the length of the shore of the Dreisam that is in very intensive use must also be added to this total. The city is surrounded by 7,015 hectares of landscape conservation areas with open land and wooded sections (corresponding to 318 m<sup>2</sup> of landscape conservation area per inhabitant), which can be reached within 10 minutes from anywhere in the city. There are also 661 hectares of nature reserves (approx. 30m<sup>2</sup> per inhabitant), which predominantly serve to maintain biodiversity. Large sections of these conservation areas (around 3,500 hectares) form part of the NATURA 2000 European network of protected areas. On average, all citizens of Freiburg are a maximum of 150-300 metres away from their nearest free time and leisure area. Policies: planning with care and abundance green areas when new districts are realised. Communal housing block interior areas' scheme. Freiburg Municipal Forest initiatives. Green belt, green roofs, boulevards development.

#### **4. Quality of local ambient air**

Main Evaluator: Matthias Ketzel

Co-Evaluator: Bert Metz

<b>Score</b>	<b>13</b>
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#### **Main Evaluator**

Clean air plan implemented with a number of effective measures. Public displays in the town but no web page given. No data for PM10 and NO2 in 2007 reported. Measures not too concrete in the application. PM action plan is on the way.

#### **Co-evaluator**

Reduced points on measures taken because of very limited information

#### **5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzel

<b>Score</b>	<b>12</b>
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#### **Main Evaluation**

All actions focused on transportation noise. Achievements not clear. No information on budgets.

#### **Co-evaluator**

Agreement with main evaluator

#### **6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

<b>Score</b>	<b>13.2</b>
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#### **Main Evaluator**

Prevention before disposal before dumping' policy laid down in Closed Substance Cycle Waste Management Act with emphasis on using waste to generate materials or energy. Motivation of citizens is voluntary. A very well functioning integrated waste management system maximising recovery of materials and energy resulting in zero landfill. While landfill diversion has been enormously successful there are no firm proposals to make improvements beyond the



current system.

**Co-evaluator**

Prevention before disposal before dumping' policy laid down in Closed Substance Cycle Waste Management Act with emphasis on using waste to generate materials or energy. Motivation of citizens is voluntary. A very well functioning integrated waste management system maximising recovery of materials and energy resulting in zero landfill. While landfill diversion has been enormously successful there are no firm proposals to make improvements beyond the current system.

**7. Water consumption**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>7.5</b>
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**Main Evaluator**

Very low consumption even without full metering. Medium range leakage. Freiburg states that they don't see water consumption as an environmental problem as ample water is available. No further ambitions on water saving or thoughts about energy efficiency. However, some CC preparedness measures were presented. Further efforts on incentive water pricing are missing. Some efforts on infrastructure rehabilitation and leakage control have been shown, also for future commitments but no financial statements. Disappointing for an environmental city like Freiburg.

**Co-evaluator**

54% of homes fitted with water meters. Excellent quality of drinking water but little conservation measures in place to save water or most importantly energy. Leakage is at 11% and unlikely to be reduced due to abundance of ground water locally. Plan to continue network rehabilitation in years ahead.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>12</b>
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**Main Evaluator**

Tertiary treatment with good removal. 50% separated system, fine overflow capacities beyond that. No reuse, good energy efficiency (all good but no top points). However, further commitments in all areas, rain water system, energy efficiency, WFD, etc, but no real outstanding innovations.

**Co-evaluator**

Almost 100% connected to wastewater collection system. Wastewater Treatment system is high quality coupled with energy recovery to provide 100% of heating requirement and 40% of electrical energy required for the plant 10-15 years monitoring programme for canal system. Significant future plans to upgrade stormwater system.

**9. Sustainable management of the local authority**

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

<b>Score</b>	<b>13</b>
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**Main Evaluator**

Overall, integrated, participated Planning: Freiburg's climate protection concept since 1996.





Aim, to cut CO<sub>2</sub> emissions in Freiburg by approx. 25% by 2010 (in relation to 1992). Vision: by 2030 Freiburg's CO<sub>2</sub> emissions are to be cut by 40%. Additional financial resources provided. EMS certification: This certification is not usual anywhere in the Federal Republic, but the comprehensive DIN standards, VDI guidelines and various working instructions from the German association of Cities and Towns, are taken into consideration during planning and execution. Sustainable purchasing: In accordance with a decision of the municipal council of 10/07/08, construction products must meet the 'Blauer Engel' criteria in order to be permitted for use. Following this fundamental decision, the Blauer Engel criteria are already used as a basis for tenders by the municipal administration in various sectors. Printing and photocopying is now predominantly done on recycled paper (72% in administrations and schools). As part of the application of the energy guideline to Freiburg's building management in 2007, all departments were informed that products satisfying the Blue Angel criteria should be preferred when procuring electrical appliances. More than 2/3 of current leased company cars run on natural gas (35 vehicles). All leased company cars meet the Euro 4 pollution standard and fall within pollution group 4. Support for farmers' markets / Use of organic food in canteens and university dining halls / conferences.....Commitments: to long term, 50% of the food provided by school caterers will contain organic ingredients. Municipal buildings: Specific heating energy consumption: 97.1 kWh/m<sup>2</sup> Specific electricity consumption: 19.5 kWh/m<sup>2</sup> Specific water consumption: 269.1 litres/m<sup>2</sup>. Guidelines imposed higher heat insulation standards and passive house standard for municipal buildings. New municipal buildings constructed on 'passive house' principles are certificated by the independent Passivhaus-Institut in Darmstadt. Eco/bonus to be paid for any renovation or new construction not performing as requested. 701 kWp of PV installations have been fitted on the roofs of municipal buildings. Wood chip heating plants are in operation in two schools and communal heating/power plants were also installed in 6 municipal buildings. Budget for the renovation of municipal buildings: In 2006 expenditure on heat insulation measures amounted to approx. € 350,000. Expenditure planned for heat insulation measures for 2007 and 2008 is over € 7 million per year for comprehensive heat insulation renovations in school buildings (The Weiherhof Schools now need less than half as much heating as before). Commitments: upgrading for the control systems, A++ appliances. A total of 12,000 public street lights are to be refitted incorporating an energy-saving alternative by 2012. The cost of this measure is estimated at € 3.3 millions.

#### Co-evaluator

Indeed good performance on all parameters for achievements. In general good short and long-term commitments with some financial perspectives.

### 10. Sustainable land use

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

**Score**

**10,5**

#### Main Evaluator

Growing city; 40 inner city 60% outer city development (in the future 50/50 planned) which is less compared to their cities; compared to others only medium population density; new spatial plan allocates less (how much less?) new development areas than the proceeding. positive improving attractiveness of the inner city to keep people inside and avoid urban sprawl, showing good and innovative energy efficiency measures for housing; positive aspects also: considering broadly and detailed demographic change in the future and developing of new housing forms and living forms.

#### Co-evaluator

Agreement with main evaluator

### 11. Dissemination programme



Main Evaluator: Thea Pieridou

<b>Score</b>	<b>16</b>
<b>Main Evaluator</b>	
Proposal emphasises different target audiences - visit programmes, seminars, excursions organised by strong network of partners for about 7 different target audiences. Other activities such as festival with partner cities, campaign, tours, and use of print media, internet are also mentioned. Freiburg will also be present at Expo2010 in Shanghai and will make use of that platform. Good package of communications. Some creative ideas elaborated.	

## **12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>16</b>
<b>Total Score</b>	<b>147.7</b>

#### 4.5 Evaluation Report for Hamburg

Original year of application 2010  
Application to be considered for both years: Yes

##### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>12.5</b>
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##### Main Evaluator

High emissions per capita, but more than 15% reduction since 1990. High emissions from transport. 12% of electricity from renewable sources. Very comprehensive measures across the board, with only the waste management area requiring further improvements. Excellent targets, future plans and monitoring. High budget. Additionally, Hamburg has a Municipal Climate Act, an adaptation programme and an active research programme.

##### Co-evaluator

Agreement with main evaluator

##### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>12</b>
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##### Main Evaluator

Good current performance and accomplishments in terms of cycling network and public transport indicators. A very extensive cycling network with one of the highest densities (almost 1 km lane/inhabitant of separate cycle lane) among the shortlisted cities. Near 100% of citizens have high class public transport within 300 metres. Rail and underground systems have been expanded and service density increased, in coordination with surrounding municipalities, leading to an increase in patronage. Somewhat higher car share for short trips than in some other shortlisted cities and limited actual modal share for cyclists, even if the number of cyclists is increasing. Urban development is aligned with public transport arteries. A broad range of measures have been adopted, including pedestrianisation measures, traffic speed calming, and traffic light control. Additional massive rail/subway system improvements are in the pipeline, including a new underground line. Specific targets and commitments in several areas, including for cycling, and for increasing the share of freight through Hamburg harbour that will use rail (today 30%). A significant proportion of Hamburg's Climate Protection strategy of 25 MEURO/year is being allocated to the transport initiatives. Limited information about effective measures to target car and lorry traffic directly, measures like charging tolls and environmental zone are 'to be examined'. Credit for awareness measures such as car free Sunday with free public transport and promotion of alternatives to car.

##### Co-evaluator

Increasing share of cycling; relatively low public transport use despite good accessibility but rising passenger numbers; 70% of all container traffic by rail.

##### 3. Availability of green areas open to the public

Main Evaluator: Birgit Georgi  
Co-Evaluator: Maria Berrini

<b>Score</b>	<b>11</b>
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**Evaluator**

Positive: good accessibility and systematic structure of green space, high general accessibility of waterways and lakes, many nature reserves, combined with walking and cycling network; further very positive: focus on disadvantaged districts, considering social aspects of green, participatory approaches; in the future upgrading, increase the connectivity, more protected areas; strong commitment: citywide concept until 2013 with concrete resources, weaknesses in the application: climate change, air pollution, noise aspects in relation to green areas not mentioned

**Co-evaluation**

Hamburg has a total area of 75,524 ha with 6,800 ha of public green areas (9% of total area), Over and above this are the 3,432 ha of wooded area owned by the city (5% of total area) and 6,123 ha of nature reserves (8% of total area), as well as the 13,750 ha "National park Hamburgisches Wattenmeer" (Hamburg Wadden Sea National Park), which is situated outside Hamburg. It is designed as a networked system of open spaces: Radial landscape axes and the two tangential green rings form the principal structural elements. This basis is supplemented by recreational hubs: district parks, regional parks and local recreation areas, playgrounds, sports fields and allotments, interlinked with each other via a network of green corridors and paths. Small bodies of water publicly accessible are frequently an integral element of the parks, Hamburg has 29 nature reserves and 36 landscape protection areas 17 m<sup>2</sup> per capita, 89% of Hamburg's population, live within a maximum distance of 300 m from a park. Policies: development of open and green areas in disadvantaged districts of the city (13 m<sup>2</sup> per capita), project-based population, participation processes, measures for improving or creating open spaces in 30 development areas. Specific project aiming to improve and realise green areas, paths, playgrounds, Commitments: 8.000.000 euro for the period 2009/2013. to create a public park on the Elbe island of Wilhelmsburg, Europe's largest river island, to approve two new nature reserves and also expand some of the existing nature reserves.

**4. Quality of local ambient air**

Main Evaluator: Matthias Ketzler

Co-Evaluator: Bert Metz

**Score**

**14**

**Main Evaluator**

Very good measures and actions, (Clean air Plan 2004, AQM action plan, 2005) A few graphs would have been helpful but at least tables, also measures on ship emissions (filters) taken. Bio gas and natural gas vehicles. Good information of public (good web pages, videotext, telephone service).

**Co-evaluator**

Agreement with main evaluator

**5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzler

**Score**

**11.5**

**Main Evaluator**

Recent achievements not described. Measures taken only for goods traffic railway line, air traffic and port activities. Remediation thresholds in residential areas (70 dBA daytime and 60 dBA nighttime) are too high. No comments on measures regarding noise from road traffic or other sources. Future commitments linked to traffic only. No provision for education or noise awareness campaigns.

**Co-evaluator**

Good measures on aviation, road measures missing but great plans for A7 highway. bit more measures /plans on public transport and cycling would be better.

**6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-evaluator: Maria Berrini

**Score****13.4****Main Evaluator**

Comprehensive awareness programmes by Hamburg's Ministry for Urban Development and the Environment and Municipal Sanitation Department to underpin separate collection schemes for paper, glass, plastics, metals, biowaste at household and commercial level. The integrated waste management system works very well maximising landfill diversion through a combination of materials recycling and incineration. There are comprehensive plans to improve both recycling and energy recovery in the years ahead.

**Co-evaluator**

Agreement with main evaluator

**7. Water consumption**

Main Evaluator: Beate Werner

Co-evaluator: P.J. Rudden

**Score****12.5****Main Evaluator**

Very good performance in consumption, metering and leakage. High investments in infrastructure, incentive pricing, good awareness campaigns and innovation on flush-less urinal collection. However, CC preparedness should also have been considered with regard to energy efficiency for water supply. With this level of high performance it might be understandable to miss out further commitments in this area, but not many points can be given here. Financial commitments at least on maintenance further awareness and efficiency are missing.

**Co-evaluator**

Hamburg is supplied completely by groundwater of high natural quality from within its own boundary. There is a comprehensive water maintenance programme in place leading to low water leakage. Consumers are billed on the basis of water metering. Waterless urinals are installed on a pilot basis. Climate change issues are well factored into future plans.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-evaluator: P.J. Rudden

**Score****12.5****Main Evaluator**

Good removal. Good overflow capacities, innovation with separated urinal collection in public toilets. Very good energy efficiency, self-supply by 100%. Separated rain water management planned for future. Convincing further commitments presented including further plans for separated rain water management, urinal separation and avoiding thermal load in the river Elbe.

**Co-Evaluator**

Hamburg complies with the EU Urban Wastewater Directive but more work is required on nitrogen removal. The quantity of combined water overflows have been reduced by over 90%



since the early 1980's. An innovative procedure to remove high ammonia content from sewage sludge dewatering process is in place together with incineration of sludge with energy recovery. Innovations also being implemented on 'separation of yellow water' (eg urine) from waterless urinals as part of new sustainability programme.

### 9. Sustainable management of the local authority

Main Evaluator: Maria Berrini

Co-evaluator: Beate Werner

Score

13

#### Main Evaluator

Overall, integrated, participated Planning and Vision: Building on the process of the Local Agenda 21, in 2001 Hamburg presented a sustainability strategy under the title "Environmental Roadmap – Goals for a sustainable Hamburg". Hamburg's Strategy for Climate Protection 2007-2012", EMS/Certification: n.2, the municipally owned Hamburg Water /24 sites/ 2,400 employees and Hamburg Municipal Sanitation Department /one site /2,500 employees. Over and above this, eleven municipal bodies have participated in the "Ökoprofit" (Ecoprofit) project where environmental management structures are introduced into these companies and can be used as the basis for further environmental management systems. Sustainable purchasing: Hamburg always specifies criteria which apply to eco-labels such as the "Blue Angel. The city always uses the most energy- and water-efficient products available on the market. Hamburg has purchased 100% of the electricity that will be used for public buildings in the years 2008 – 2010 that can be attributed to regenerative energy sources (in accordance with the RECS system). Recycled paper used in Hamburg's administration currently lies at approximately 30% of the city administration's overall paper consumption. A further increase of this percentage to at least 50% as of 2009 is aimed for. In 2007, the City introduced new guidelines (details in the application) for environment-friendly purchasing which, as part of Hamburg's contract awards manual, are binding for all ministries and departments / related to almost all products categories. Commitments: a cross-administrational motor pool management project, in order to provide the basis for environmentally oriented purchase decisions and a Research and Development) subsidy programme to increase the economic feasibility of environment-friendly products. Municipal buildings: Energy consumption: Energy consumption of municipal buildings 2000 - 2007/ Electric energy (kWh/m<sup>2</sup>year) 31.1 - 42.3. Heat energy (kWh/m<sup>2</sup>year) 171.5 - 140.7. The central dep. "Energy management for public buildings" specifies energetic standards and technical regulations, monitors consumptions, provides a consulting and services to all municipal departments. The energy management department has some 3 million euros available annually to subsidise these measures (e.g. solar technology, block heating power plants, heat recovery, and energy-efficient power systems). The requirements in Hamburg Ordinance surpass those specified in Federal laws. The Hamburg Climate Protection Act contains a special cost-efficiency benchmark for energy-saving measures in public buildings. Programmes for lamps, boiler and refrigerator replacement. Hamburg had replaced over 200,000 conventional lamps in more than 400 public buildings, saving energy and 3.4 million euros per year. Over 600 boiler systems have been replaced with modern condensing boilers in recent years (an investment of 18 million euros). CO<sub>2</sub> emissions have been reduced by approximately 9,000 t per year, with annual energy savings of some 46,000 MWh. Additionally, • Conversion of traffic lights to LED technology, 700,000 euros • Renovation of lighting, 300,000 euros • Optimising of electric power systems and air conditioning systems, 300,000 euros • Energetic optimising of heating systems (production, hydraulics, pumps, solar thermics, etc.) and heat insulation, 1,000,000 euros. The introduction of new technologies (such as Wake-on-LAN) for workstations, energy savings of 55,000 kWh, 60,000 euros in the budget 2007/2008. Commitments (some from the list): • Renovation programme will start in 2008 for 30 buildings savings of up to 40%. Funds of 3.8 million. • Electricity consumption cut outside of main hours of use. Budgeted 400,000 euros / same amount for the following years. • The project "No school over 200" aims to renovate all schools by 2012 under 200 kWh/m<sup>2</sup> per year. "Climate protection at school" project for

building schools/ use of photo-voltaic / currently 60 demonstration systems. it is planned to equip at least a further 40 schools with larger systems (> 2 to 10 kW). Up to 50% of the total costs will be covered by subsidies from public funds. All Hamburg's schools participate in the programme fifty/fifty financial incentive, have reduced their CO2 emissions by some 120,000 t since 1994, and in turn have received over 12 million euros (in accordance with the fifty/fifty principle, half of the funds saved) to be used as they see fit. The potential savings are still far from exhausted. 60 schools even manage to achieve over 20%.

**Co-evaluator**

Fine achievements, but other cities performed slightly better. Satisfactory commitments, but focused very much on schools only.

**10. Sustainable land use**

Main Evaluator: Birgit Georgi

Co-evaluator: Luis Bento Coelho

<b>Score</b>	<b>10</b>
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**Main Evaluator**

Convincing: towards inner city development, preventing woods and agricultural lands; increase of densities but keeping recreational potential; revitalisation of former harbour and industrial sites; compared to other still only medium population density on settlement areas; commuter relations considered by cooperation with the hinterland; good: offering different building structures to the demands of different population groups - keeping people in the city; all new developments well linked to public transport; innovative on contaminated sites: shift from excavation and dumping to site treatments and recycling; in the future more towards compactness but still developments on greenfields (some weakness); positive: considering demographic developments.

**Co-evaluator**

Agreement with main evaluator

**11. Dissemination programme**

Main Evaluator: Thea Pieridou

<b>Score</b>	<b>20</b>
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**Main Evaluator**

Very well-conceived strategy and very attractive programme of events for well chosen target groups. The city seems very committed to its well defined objectives. The city provides a unique platform for EU dialogue and makes use of its green assets. Young people are actively involved in programme (ex. youth meeting on cruise ship in port). Their own Mayor has committed to becoming an ambassador and others as well. Branding will be used to help with their communications. Strong networking and enthusiasm to collaborate with other EU events such as EMW, EUSEW. A very good inaugural event is planned together with Hamburg's Environmental Days and another big conference will be organised during the year along with 4 workshops for experts. Closing ceremony, festival and gala concert also foreseen. Use of the web, brochures etc also elaborated. Expo Shanghai 2010 will be used as communications platform. An agency will be set up to run this ambitious Green Capital programme. Holistic package of communication actions full of fresh ideas, commitment and enthusiasm. Very creative and original ideas: production of commemorative coin, vote for the most environmentally friendly hotel, film/poster competitions, adoption of Hamburg Environmental Statement, branding rental bikes/vehicles, merchandising etc.

**12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:



- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>19</b>
<b>Total Score</b>	<b>161.4</b>





## 4.6 Evaluation Report for Münster

Original year of application 2010  
Application to be considered for both years: Yes

### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>9.5</b>
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#### Main Evaluator

Moderately high emissions per capita, but >20% reduction since 1990. High emissions from transport. Low share of renewable electricity. Strong programmes on low carbon energy, district heating/CHP (municipal plant), low carbon buildings, climate education and transport. Moderate achievements on waste. Strong performance on targets and budgets, but plans only partly approved. Adaptation plan in place.

#### Co-Evaluator

Agreement with main evaluator

### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>12.5</b>
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#### Main Evaluator

High performance in cycling network and successful application of range of measures to further improve long established position as bicycle city with specific financial commitments disclosed in the application. 90% of citizens have access to frequent public transport within 300 meters, which is similar to several of the shortlisted cities. The share of cars among short trips is around 23%, one of the lowest figures, while the bicycle share is very high, around 45%. 90% of buses are or will soon be low emissions with regard to particulates. Münster appears to have some of the most extensive Mobility Management promotion efforts of the cities, involving also measures to shift the municipality's own internal employee transport away from cars. Also major plans for improvements to Public Transport flow and quality improvements. There is an ambitious strategy for investments in cleaner Public Transport vehicles. No info on freight/goods transport. Extra credit for a School program and the mobility policy for city employees.

#### Co-Evaluator

High share of cycling; good access to public transport but relatively low use; very slight decrease in car use; strategy. City of short distances; new residential areas close to stations.

### 3. Availability of green areas open to the public

Main Evaluator: Birgit Georgi  
Co-Evaluator: Maria Berrini

<b>Score</b>	<b>13</b>
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**Main Evaluator**

Very high accessibility; long tradition in green structures policy which they further follow - even increased the green areas over the last 10 years by 10%; very positive: including the urban rural interface, systematic green structure, considering climatic functions, green areas combined with walking and cycling network, providing intensively and extensively managed green areas; further upgrading the very high status in the future, focus on malignance, convincing also the customer related approach.

**Co-evaluator**

The Promenade, botanical garden, the recreational park around the Aa Lake, numerous municipal parks, 3 green belts, 7 green corridors stretching radically from the open landscape parks and recreational areas, into the city centre. Moreover, the municipal area is crossed by the Dortmund-Ems Canal. 14 m<sup>2</sup> per capita (32 m<sup>2</sup>, including also allotments etc.), 95% of the resident population is in the position to reach a green space within 300 m. More than 300 public playgrounds dispersed throughout the municipal area. The few uncovered zones comprise some rather rural border areas of Münster which are directly situated in the so-called "Münsterländische Parklandschaft" - an agricultural man-made landscape characterised by hedges and landscaped elements. The surface of public green spaces and playgrounds has been increasing, within the past decade, by a total of 23% (898 ha). In 1965, Münster was one of the first cities in Germany to establish a green structures policy. An extensive list of measures for new green area development and improvement of existing ones are under going (details in application). During the European competition "Entente florale" (hosted by the AEFP - the European Association for Flowers and Landscape) Münster was awarded a gold medal in 2007 for its commitment to its green structure which was also a core element in its being voted the "World's most liveable city" during the LivCom- Award 2004 (hosted by UNEP - the United Nations' Environmental Programm)."

**4. Quality of local ambient air**

Main Evaluator: Matthias Ketzler

Co-Evaluator: Bert Metz

**Score**

**14.5**

**Main Evaluator**

Reduced price for public transport ticket in case of ozone warning!!, national leader in Bike traffic, national capital in climate protection 2007, cleaner buses, long list of concrete plans given (Clean air plan) and documented as appendices. Informative web pages on AQ-

**Co-Evaluator**

Agreement with main evaluator

**5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzler

**Score**

**13**

**Main Evaluator**

Clear description of achievements and measures taken. Targets for action (70 dBA daytime and 60 dBA nighttime) are too high. Noise action plan does not seem too organized.

**Co-Evaluator**

Agreement with main evaluator

## 6. Waste production and management

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

<b>Score</b>	<b>11.4</b>
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### Main Evaluator

An 'ecological' waste management system is in place using 4 bins for separate collection and MBT for residual waste. The waste management concepts (AWK) are documented for achieve this objective. The waste company AWM created incentive schemes for waste avoidance based on bin size and type. A free paper bin has been introduced to minimise residual waste. The recycling levels are very impressive through a combination of materials recycling and MBT though the destiny of the MBT 'products or outputs' are unclear as either landfill or incineration is needed to treat residuals further.

### Co-Evaluator

Agreement with main evaluator

## 7. Water consumption

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>11</b>
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### Main Evaluator

Medium range consumption, but good performance on metering and leakage. Good awareness rising. Network maintenance could be better described, no mentioning of CC preparedness, but some achievements on rain water percolation presented. Further commitments are focusing on CC and infrastructure; however no financial commitments are given.

### Co-Evaluator

There is 100% metering of water and water consumption /capita is falling since 2001. Leakage is relatively low at approx 4% and there are ongoing public awareness programmes. Rainwater harvesting has been promoted to consumers as part of the water saving measures.

## 8. Waste water management

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>11.5</b>
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### Main Evaluator

Very good performance on P and N removal. Very good rain water management, with this over flow capacities not needed to elaborate but storm water preparedness should have been mentioned. OK energy efficiency, points lost on land fill and WW re-use. Fine further commitments in financial terms used for malignance, achieving WFD. But some real innovative projects e.g. energy self-supply by sludge use are missing

### Co-Evaluator

100% of wastewater produced in Munster complies with EU UWWD and more than 98% are connected to central system. There are 6 treatment plants serving the city with over 95% nutrient removal. The Werse river does not yet meet WFD targets but there is a noticeable improvement in recent years. The issue of energy efficiency in sewage plants being addressed but sludge is digested currently.

## 9. Sustainable management of the local authority

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

<b>Score</b>	<b>13</b>
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### Main Evaluator

Overall integrated participated policy and Vision: In 1992 established an advisory committee for climate and energy to draw up recommendations for abating the CO<sub>2</sub> emissions by 25% until 2005. Introduction of an environmental management system for the entire municipality of Münster in September 2001, as a result of a well participated Local Agenda 21 and adoption of the Charta of Aalborg, since 1999. Budget: The ongoing budget for the environmental management amounts to approx. EUR 810,000 annually. Future investment costs for implementation measures are not included here, since these costs are distributed on various budgets (e.g. energetic renovation of buildings). EMS/ Six locations have been certified to this day. With the certification according to EMAS, important measures in environmental management were implemented (details in the application) Commitments: All municipal building yards and accommodations of green and sports area maintenance will be included into an environmental management system and certified according to EMAS and ISO by late 2009 Sustainable Purchasing: municipal tendering and awarding guidelines since March 1999. Eco-labels such as the Blue Angel, Energy Star, and TCO are used. Consequences of this policy include, for example: • Only paper with the "Blue Angel" is procured, • The use of CFC, PVC, and tropical wood materials is abandoned, • Spray chemicals (pesticides) are not used any more, • Separation of recyclable materials is mandatory, • The annual heat consumption of new municipal buildings may not exceed the value of 50 kWh/m<sup>2</sup> (decision of the city council), • In the case of new acquisitions, natural gas vehicles are procured if available on the market, and Diesel vehicles are fitted with soot filters, • Municipal buses are fitted with state-of-the-art Ad-Blue- and EEV technologies, respectively. The procurement with the "Blue Angel" has been mandatory also for photocopiers since 2004, reaching almost 100% by now. PC and computer screens have to be certified according to Energy Star 4.0 for many years now; 100% by now. The municipal canteens pay attention to predominantly local products. Furthermore, some products are procured from ecological cultivation and/or fair trade. Municipal buildings / energy consumption: The average consumption of all public buildings is monthly monitored and amounts to approx. 120 kWh/m<sup>2</sup> of heat and 15 kWh/m<sup>2</sup> of electric power. Several buildings have been refurbished during recent years. 80% of all employees work in these three buildings. Consumption in the administrative buildings adds up to 43 kWh/m<sup>2</sup> of heat in the "Stadthaus 2" or 83 kWh/m<sup>2</sup> of heat in the "Stadthaus 1". The specified limit value of the annual heat consumption for the construction of new municipal buildings must not exceed 50 kWh/m<sup>2</sup> (decision of the city council). The project "Saving energy and waste in schools and daycare facilities for children" 101 schools and day-care facilities are participating by now, with more than 25,000 children. The day-care facility for children Loddenbach has been constructed as a pioneering project in passive house (15 kWh/m<sup>2</sup>/a) architecture in 2001. The public buildings employees have been motivated by the power saving campaign "power devourers" to adjust their behaviour, saving energy. The city of Münster is supplied with approx. 2 million kWh of green electricity. Commitments: Energy consumption is to be reduced by 10% and waste quantities by 15%. In the same fashion, the storage of substances hazardous to water is to be safeguarded at all sites. Average consumption values are to be decreased below 100 kWh/m<sup>2</sup> within a period of five years. Based on technical measures and a comprehensive campaign, power consumption is to be reduced by 20%. Further locations will be included in the audit according to EMAS each year.

### Co-Evaluator

Very good achievements in nearly all areas including agenda21 and mobility management and awareness campaign; commitments are described in a rather short manner but with some financial perspectives.



**10. Sustainable land use**

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

<b>Score</b>	<b>10</b>
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**Main Evaluator**

Slogan is compact-urban-green and a centre oriented city of short distances (=good vision/approach); however, population densities in built up areas are the lowest among the 8 cities; overall population is stable but the city lost a major part to the neighbouring municipalities intensifying commuter relationships; good: brownfield developments, currently 38% of residential development on derelict and reorganised areas; innovative: for future developments creation of framework requirements to keep citizens in the city; strategic concept for demographic change; cooperation with hinterland - all together good vision and approaches but current performance behind other cities.

**Co-Evaluator**

Agreement with main evaluator

**11. Dissemination programme**

Main Evaluator: Thea Pieridou

<b>Score</b>	<b>20</b>
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**Main Evaluator**

Clear understanding of viewing the EGCA as an extraordinary opportunity to exchange ideas and experiences, related to green cities; very strong network of partners at all levels; motivation and commitment to communicate EGCA; wide use of communication tools, internet, events (including launch and closing ceremonies), advertising, media etc. Clear coherent full programme of events and actions. Lots of creative elements such as portal, wikis, Google earth, green dream camp, plush event, conclusive report with guidelines for all cities.

**12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>16</b>
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<b>Total Score</b>	<b>155.4</b>
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## 4.7 Evaluation Report for Oslo

Original year of application 2010  
Application to be considered for both years: yes

### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>10</b>
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#### Main Evaluator

Low emissions per capita with some decline, although recent increase between 2005 and 2006. Low transport emissions and (close to) 100% hydro electricity. Strong performance on district heating, waste management and transport and reasonable performance on low energy buildings. Limited action on climate education and further improving renewable energy (other than district heating).

#### Co-evaluator

Agreement with main evaluator

### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>11</b>
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#### Main Evaluator

Oslo has good accessibility to public transport, among the average for the candidate cities, while cycle network density is, although expanding, still on the lower side. With a share of 32% for car (driver + passenger) in trips up to 5 km, Oslo is performing below average. Information concerning low emission buses is not fully comparable with other cities, but performance seems to among the least ambitious and clean among the 8 shortlisted cities. Broad range of transport measures adopted over the last several years including (since 1990'es) toll roads to finance congestion relief road tunnels and some public transport investments, (20% of toll income). Fare reduction in public transport since 2007 has resulted in increasing patronage. Cycling package adopted. Stimulation of electric vehicles via free parking and provision of some charging stations. At least since 2002 an official aim is to allow people to settle comfortably in the city without dependence on a car. Transit oriented urban development continues to be promoted and implemented in at least nine designated areas, including parking restrictions. Further expansion of road tunnels with tolls in the future, now with higher share earmarked to PT (pending government approval); also plans for alternative fuel buses. Targets' commitments and expected results of future initiatives are not directly described in the application, but some links are provided to additional material.

#### Co-evaluator

Car mobility slightly fallen over the last years; relatively low share of cycling but big share on walking; good public transport access; restrictive parking policy; integration transport and land use / urban planning, city of short distances; less concrete measures for the future.

### 3. Availability of green areas open to the public

Main Evaluator: Birgit Georgi  
Co-Evaluator: Maria Berrini

<b>Score</b>	<b>13</b>
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#### Main Evaluator



Very high quality and very high accessibility of green and blue space: maintained green structure despite population growth due to development of brownfield sites and inner city development; ecological management of the forests, nature conservation areas; biodiversity conservation; plans to improve access to water ways, lakes and their water quality; future strategies focus on maintaining the blue green structure; coastal path system ; reopen streams and brownfield development; very holistic approach considering not only the environment but also physical, cultural and social aspects

**Co-evaluator**

The quantitative data are impressive. The city is surrounded by the Marka Forest (2/3 of total area), 8 vegetated rivers pass through the city, parks and green area everywhere (19% of the built area). 94% of population leaving 300 m of distance from green areas. An extensive list of measures for new green area development and improvement of existing ones are under going (details in application).

**4. Quality of local ambient air**

Main Evaluator: Matthias Ketzel

Co-Evaluator: Bert Metz

<b>Score</b>	<b>15</b>
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**Main Evaluator**

action plan for AQ 2005, already data for 2008 given!, more than 13 measures, incl. low emission zone, also wood stoves addressed, great success story with visible improvements in Pm10 due to taken measures on studded tires use! Excellent web information, planned biogas for public buses.

**Co-evaluator**

Agreement with main evaluator

**5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzel

<b>Score</b>	<b>13</b>
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**Main Evaluator**

Information provided does not differ substantially from 1st. round. Achievements not well documented. Extensive measures directed mainly to transportation and port activities. No budget information provided. Interesting noise action plan with provision for quiet areas.

**Co-evaluator**

Also focus on port, rail ways, public transport.

**6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

<b>Score</b>	<b>11</b>
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**Main Evaluator**

Waste Management Plan 2005-2009 has long term waste reduction objectives. The use of landfill will be phased out by 2009. There are however no specific waste reduction actions or targets. The City of Oslo through the Agency of Waste Management run a school teaching waste reduction programmes for children about waste and recycling issues. Oslo is very dependent on incineration more so than the other shortlisted cities but there are plans to develop recycling and biowaste treatment facilities further. Waste prevention and /or minimisation needs to be tackled more aggressively.

**Co-evaluator**

Agreement with main evaluator

**7. Water consumption**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

**Score****5.5****Main Evaluator**

Poor performance on consumption, leakage and no metering. Some network rehabilitation and awareness-raising. However, Oslo seems to consider water supply not as an environmental problem, not even with regard to energy efficiency. The future commitments focus on tackling of leakages. CC adaptation is only tackled by a supply side measure, to provide supply from a more distant lake.

**Co-evaluator**

Oslo's abundance of water is a major advantage to the city in supply terms but the energy and climate change implications require that they reduce the use of these resources and thus save energy. There is nevertheless a reduction in consumption per capita in recent years. The city has just commissioned a new state of the art treatment and supply system and there is now a new commitment to reduce leakage from 35% to 20%.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

**Score****9****Main Evaluator**

N removal could be much higher, no separated system and obviously problems with over flow capacities. No WW re-use, land-fill (fertiliser) applications. But OK energy efficiency regarding biogas use and good achievements regarding separated sewer systems. Commitments to reach WFD goals and improved energy efficiency, but no financial perspectives shown.

**Co-evaluator**

Two large wastewater treatment plants provide efficient secondary treatment with good phosphate removal and relatively poor nitrate removal. There are ambitious plans to greatly reduce storm overflows to the bay with a new sewer interceptor project using deep tunnels planned to greatly improve the trophic status of the bay.

**9. Sustainable management of the local authority**

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

**Score****12.5****Main Evaluator**

Overall policy for environmental management and vision: a Strategy for Sustainable Development" revised in every council period followed up in action plans for the different sectors. Examples are Climate and Energy Programme and Programme for Improved Air Quality. The introduction of eco-efficiency in the City of Oslo also involves cooperation with the relevant state authorities' private businesses and organisations in the Sustainable City Forum. As a part of this 'Eco Living' recruits employees and residents to take the 'eco-pledge' of registering as Green Families. The City Council reports on Urban Ecology Program and Green Municipality are now under revision. They are expected to be put forward to the City Council in 2009 and will give further goals and measures on improving the environmental management





system. Commitments: • tougher goals on green procurement • further cooperation with private business sector tougher goals on energy efficiency in municipal buildings including both renovation and new building phase out 95 percent of all oil burners in municipal buildings to be replaced with district heating biomass or geothermal heating/heat pump. EMS: The Green Municipality project is led by the City of Oslo's Department for Environmental Affairs and Transport. Result / 291 out of 800 municipal units certified / 13 are ISO 14001. The rest are certified according to the national standard Eco Lighthouse. Short term measures / certifying of all municipal units. This means about 450 to 500 new certifications. In addition some of the agencies certified as Eco-Lighthouse are expected to go further to ISO 14001 certification. Parallel the system for indicators reporting and evaluations will be further developed. Sustainable Purchasing/ A policy for green procurement is integrated in Oslo's municipal procurement rules and regulations. 40 binding procurements contracts adopting GPP criteria (working clothes cars electricity detergents computers). In 2005 we won a national prize for green procurement of low emission cars and car hire contracts. A city council decision in 2006 states that Oslo shall seek to qualify as a Fair Trade city. Oslo got funding from The Norwegian Agricultural Authority for a project to enhance the use of organic food in municipal departments. Municipal buildings Energy consumption / The current average energy consumption of the 43% of the total (1 300 000 square meters of heated floor area) is 181 kWh per square meter in 2008 is reducing to 170 ... adopted long-term goal is to reduce energy consumption in new buildings to 105 kWh per square meter and in rehabilitated buildings to 120 kWh per square meter. Municipal buildings when possible are connected to the district heating network system that utilizes a large proportion of renewable energy sources /1000 GWh with a goal to 2000 GWh. "

**Co-evaluator**

Medium-range achievements; quite good short and long term commitments.

**10. Sustainable land use**

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

<b>Score</b>	<b>10</b>
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**Main Evaluator**

Very good: nearly 80% of new buildings on brownfields, 46 % of the population growth happened in the centre; however only medium population density; impressive: comprehensive contaminated site management e.g. Clean Oslo fjord project; positive regarding future expected population growth - around half of it can be placed in the inner city with good public transport access, also no mentioning of climate change impacts; also positive: cooperation with the hinterland to limit urban sprawl and considering of future climate change impacts

**Co-evaluator**

Agreement with main evaluator

**11. Dissemination programme**

Main evaluator: Thea Pieridou

<b>Score</b>	<b>17</b>
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**Main Evaluator**

Very good strategy with a well-structured calendar (monthly basis) of events/actions. Complete year of communications. However, not many creative ideas (ex. environmental relay) developed.

**12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>16</b>
<b>Total Score</b>	<b>143.0</b>



## 4.8 Evaluation Report for Stockholm

Original year of application 2010  
 Application to be considered for both years: Yes

### 1. Local contribution to global climate change

Main Evaluator: Bert Metz  
 Co-Evaluator: Henrik Gudmundsson

<b>Score</b>	<b>12.5</b>
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#### Main Evaluator

Moderate emissions per capita, but 25% reduction since 1990 and 50% lower than national average. Relatively low transport emissions and high rate of low carbon electricity/eco-electricity. Very strong programmes of measures across the board in all relevant areas. Ambitious targets and solid budgets. Future measures not well specified and limited mostly to goals. Regular planning revision but no specific monitoring and assessment.

#### Co-Evaluator

Agreement with main evaluator

### 2. Local mobility and passenger transport

Main Evaluator: Henrik Gudmundsson  
 Co-Evaluator: Birgit Georgi

<b>Score</b>	<b>12.5</b>
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#### Main Evaluator

Stockholm has average to good performance on the transport indicators such as length of cycle network, access to frequent public transport, and car share of short trips, although some comparable information is not available. All public transport (all trains, and all inner city buses) run on renewable fuels, although the buses are not strictly classified as 'low emission' according to the evaluation criteria. According to Stockholm city, the local transport system has taken several steps towards sustainability the last ten years. Very broad and extensive range of measures have been adopted including a successful and pioneering Congestion Charging system with good documented results in terms of reduced car use, increase in the Public Transport share, some reduced emissions, and a large increase in cycling. Also charging and other policies have been used to stimulate alternative fuel vehicles. Car share has lost to public transport between 1995 and 2005 with the trend continuing. Measures have addressed both passenger and freight transport, including an environmental zone since 1996 and some (if relatively small) innovative logistics projects. Future plans to continue expansion of rail/light rail; ambitious cycling efforts etc, with some specified budget allocations. Credit for Stockholm undertaking bold new measures; selection as national bike city 2007; and broad and dedicated programs in the area of alternative fuels (even if environmental benefits of some alternative fuels could be clarified). More than 75% of fuel stations in Stockholm now offer ethanol or biogas and all petrol sold in the region contains 5 % ethanol.

#### Co-Evaluator

Public transport with very high share in the inner city and also cycling increases on the extent of car transport; congestion charge in place and widely accepted; pool bike concept; innovative freight logistic approaches also for small business; comprehensive promotion of green fleet.

**3. Availability of green areas open to the public**

Main Evaluator: Birgit Georgi

Co-Evaluator: Maria Berrini

**Score** **13****Evaluator**

Very high quality and very high accessibility of green and blue areas enabling multiple uses like recreation, swimming, boating, health and well being, noise protection, air quality, water purification, wetland, biodiversity and ecology - broad holistic approach; innovative: socio-topic map developed together with citizens; further: high awareness, educational, training measures; in the future continuation of the innovative measures and broad approach: further upgrading; creation of beaches for bathing.

**Co-Evaluation**

95% of population leaving 300 m of distance from green areas. An extensive list of measures for new green area development and improvement of existing ones are under going (details in application).

**4. Quality of local ambient air**

Main Evaluator: Matthias Ketzler

Co-Evaluator: Bert Metz

**Score** **13****Main Evaluator**

11 measures currently incl. environmental zone, congestion charging, following national and EC plans. Biofuel mentioned several times but does not give much AQ benefit. Problem with Pm10 limit near roads due to studded tyre use. Money from congestion charge only for road infrastructure not other public transport?! Bikes not mentioned in AQ section.

**Co-Evaluator**

Increased points on measures taken because no real difference with 5 point cities.

**5. Noise pollution**

Main Evaluator: Luis Bento Coelho

Co-Evaluator: Matthias Ketzler

**Score** **14.5****Main Evaluator**

Clear and effective noise management and reduction municipal strategy. Achievements well documented. Measures well described together with budget.

**Co-evaluator**

Has permanent monitoring station for noise.

**6. Waste production and management**

Main Evaluator: P.J. Rudden

Co-Evaluator: Maria Berrini

**Score** **13.8****Main Evaluator**

The Waste Management Administration in Stockholm is assigned to create awareness and communications towards waste reduction, source separation and recycling. There is ongoing evaluation of the benefits and effectiveness of the various campaigns -reduction of the



amount of generated is one of the most important challenges within the environmental field and in accordance with the waste hierarchy, this is the primary environmental objective for waste management in the city of Stockholm. Stockholm has a very well functioning integrated waste system with much innovative developments in the transportation of waste that assist towards high recycling, especially biowaste using underground 'vacuum controlled systems'.

**Co-Evaluator**

Agreement with main evaluator

**7. Water consumption**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>8</b>
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**Main Evaluator**

Bad performance on consumption, leakage, metering only by house, not household unit. Some network maintenance, awareness campaigns focus on pollution prevention. However some good achievements on CC preparedness could be presented. Further commitments focus on network rehabilitation, no more measures, incentives or innovations mentioned.

**Co-Evaluator**

Only detached houses have metering and there is little concentration on water saving due to abundance of resources. Nevertheless there is also rehabilitation programme to replace old pipelines with concrete coated ductile iron.

**8. Waste water management**

Main Evaluator: Beate Werner

Co-Evaluator: P.J. Rudden

<b>Score</b>	<b>11.5</b>
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**Main Evaluator**

N removal could be much higher but focus is put on hazardous pollutants. Separated system and some over flow capacities, but more potential as plans show. Some good achievements on energy efficiency but not excellent. Further focused only on one project, with a medium range financial commitment up to 2010. Some further plans mentioned on rain water treatment.

**Co-Evaluator**

100% of inhabitants connected to the city system. In wastewater treatment plants 95% of phosphorus and 70% nitrogen is removed. There is very careful monitoring of receiving waters for trophic status. Four new innovative ways of treating wastewater are being tested in the new suburbs of Hammarby Sjostad. Rain water is not released directly to lakes and rivers but purified and filtered before discharge. Vegetated roofs are used to absorb rainwater also. One of the wastewater treatment plants is situated within a rock chamber to minimise environmental impact.

**9. Sustainable management of the local authority**

Main Evaluator: Maria Berrini

Co-Evaluator: Beate Werner

<b>Score</b>	<b>12</b>
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**Main Evaluator**

Overall, integrated, participated policy and Vision: Environmental aspects forms part of the



city's integrated management system, thereby enabling environmental issues to be included in the city's budgeting, operational planning and monitoring. The 6th consecutive Environmental Programme (2008-2011) lays a solid foundation for Stockholm's environmental work. ...Six high-priority target areas are in focus in the Environmental Programme. The Environmental Programmes (2002-2006 and 2007-2008) have been set up using a wide participatory process in which administrations and bodies have been involved. The city council sets up goals with a higher level of ambition than what is legislated, also indicating objectives to be achieved during the course of the programme. Environmental monitoring and reporting is conducted within the Integrated Management System and is subject to regular audits. Results from the final report show that nearly 80 % of all objectives have been reached, or have a positive progress. An assessment of the environmental profile used in the planning of the city-district Hammarby Sjöstad, is undertaken and the results will be presented in 2009. Learnings and experiences will be considered in the planning process of the two new eco-profiled residential districts: Norra Djurgårdsstaden and Lövholmen. Vision 2030/ The city council had adopted a document outlining the future. And by 2050 the target is to be fossil free. EMS: an Integrated Management System (IMS) is used by all departments and municipal companies. Environmental aspects are integrated into. The environmental programme is tracked and monitored within the framework of the integrated management system and by regular audits. ISO14000 or EMS based on is used in a large number of units. Sustainable purchasing: The Purchasing and Procurement Policy of the City of Stockholm and the Environmental Programme states the targets. First target is to purchase eco-labelled electric power for the city's own use (2007, 370 GWh, a third of the total). Commitments: 100%eco-energy by 2010 and 15% organic products by 2011. The rate of organic dairy products is currently 43 % and organic products by the municipality in 2007 are 11 %. The Environment and Health Protection Administration reached 23 % in 2007. Energy-efficient products (100%). City vehicles are 55% green (in 2008). Municipal buildings / Energy consumption: Energy consumption of municipal buildings per square meter is: 181kWh/m<sup>2</sup> (2007). Commitment: to reduce the consumption of energy in the city's own buildings and plants by 10 per cent by 2010, compared to the level of 2006. The Climate Billion (1 bill SEK) will be invested throughout the period 2008 to 2010 and has its main focus on energy efficiency measures in municipal buildings (budget for Stockholm 2008). Among many actions, the Executive Board of municipal housing company Familjebostäder (350 GWh/yeardecided in 2008 that all new buildings will be built at 30 % below the compulsory Swedish energy need, 80 kWh/m<sup>2</sup> instead of 110 kWh/m<sup>2</sup>. The board measures necessary funding for each individual object to reach this level. The board also decided to achieve at least a 10 % energy reduction at individual building level when renovating. To reassure this goal, at least 10 % of investment funds are allocated for energy measures. .

#### **Co-evaluator**

In comparison to the other cities I find Stockholm quite convincing in all areas. Vision and commitment sound promising with some financial perspectives, but further visions could be demonstrated.

#### **10. Sustainable land use**

Main Evaluator: Birgit Georgi

Co-Evaluator: Luis Bento Coelho

**Score**

**11.5**

#### **Main Evaluator**

Planning strategy is to build the city inwards but respecting city structure including green space - lead to a high compactness with high accessibility to green areas and a very high population density in built up areas; positive for new developments: redevelopment of brownfields and link to tram system; further positive aspects: considering rain and storm water collection; in the future following the vision on sustainable growth, densification, brown-field development; integrating a major expected population growth within the city.



**Co-evaluator**

Agreement with main evaluator

**11. Dissemination programme**

Main Evaluator: Thea Pieridou

<b>Score</b>	<b>18</b>
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**Main Evaluator**

Well-conceived communications strategy where the city shows its commitment and eagerness to share their own experiences and act as inspiration to other cities. Fully-fledged communications strategy starting with overarching objective and a number of communication objectives, followed by identification of target groups and key messages and communication tools. Opening ceremony with renowned Blue Hall with HRH perhaps. Closing conference also included. Hosting and participation of EU events, and other public/professional/social events. Guided tours, study/technical visits also elaborated. Strong local and international networking. Separate organisation will be set up to run the communications programme. Full overall programme of communication actions and events.

**12. Presentation at meeting 12-13 January 2009**

Criteria evaluated:

- 1) Technical Presentation/QA
- 2) Vision/ambition/credible
- 3) Stakeholder involvement/leadership
- 4) Integration/holistic approach

<b>Score</b>	<b>17</b>
<b>Total Score</b>	<b>157.3</b>



## Annex I Overview of evaluation of 35 applications for the European Green Capital Award of 2010 & 2011

Rank	City	Year(s)	Climate	Trans port	Green areas	Air	Noise	Waste	Water	Waste water	Env. manage m.	Land use	Additional measures, average	Disse- mination	Total score
1	Hamburg	2010+2011	11.00	10.00	12.00	13.00	9.50	11.00	10.00	13.50	12.50	11.50	6.43	30.00	150.43
2	Münster	2010+2011	12.00	12.00	12.00	13.00	13.00	10.00	7.00	7.00	14.50	10.75	5.86	30.00	147.11
3	Amsterdam	2010	12.00	12.00	12.00	15.00	10.50	13.00	11.00	8.00	13.00	10.25	5.29	23.00	145.04
4	Stockholm	2010+2011	12.00	12.00	12.00	12.50	13.50	15.00	8.75	8.25	12.25	11.50	6.86	19.00	143.61
5	Bristol	2010+2011	9.00	8.00	12.00	14.00	9.50	13.00	9.00	7.50	13.00	12.00	6.43	30.00	143.43
6	Freiburg	2010	12.00	12.00	12.00	11.00	9.00	11.00	9.75	10.25	14.00	10.00	6.86	24.00	141.86
7	Copenhagen	2010+2011	14.00	10.00	11.00	13.00	10.50	9.00	14.00	14.00	15.00	10.00	5.71	15.00	141.21
8	Oslo	2010+2011	12.00	9.00	12.00	13.00	11.50	12.00	9.75	9.75	11.75	10.75	4.71	25.00	141.21
9	Malmö	2010+2011	11.00	11.00	12.00	11.50	10.50	6.00	11.00	11.00	15.00	9.75	6.14	23.00	137.89
10	Vitoria-Gasteiz	2010+2011	2.00	9.00	12.00	14.00	9.50	14.00	12.25	7.00	11.50	11.00	5.86	25.00	133.11
11	Munich	2010+2011	9.00	9.00	10.00	11.00	10.00	12.00	8.00	8.50	15.00	10.50	5.00	21.00	129.00
12	Helsinki	2010+2011	13.00	9.00	10.00	13.00	13.00	12.00	9.00	7.00	12.25	11.50	5.43	12.00	127.18
13	Vienna	2010	11.00	9.00	12.00	13.00	7.50	15.00	7.25	8.75	13.25	10.00	5.14	14.00	125.89
14	Murcia	2010+2011	4.00	8.00	9.00	12.00	10.00	14.00	9.75	8.75	9.50	8.00	5.29	26.00	124.29
15	Prague	2010+2011	2.00	6.00	9.00	13.00	11.00	13.00	10.50	11.00	11.00	10.25	5.00	20.00	121.75
16	Dublin	2010+2011	5.00	8.00	11.00	13.00	8.00	14.00	8.50	7.00	5.50	9.25	3.86	22.00	115.11
17	Hannover	2010+2011	10.00	9.00	11.00	11.00	11.00	6.00	10.50	9.00	13.50	10.25	5.43	8.00	114.68
18	Pamplona	2010+2011	3.00	7.00	11.00	11.00	8.50	8.00	9.25	7.25	9.00	9.75	5.43	23.00	112.18
19	Bremen	2010+2011	8.00	9.00	9.00	8.00	9.50	12.00	9.25	8.25	13.50	9.00	3.43	10.00	108.93
20	Torún	2010+2011	6.00	6.00	11.00	11.00	7.50	4.00	7.00	7.00	9.50	8.25	3.43	27.00	107.68
21	Bordeaux	2010	0.00	7.00	10.00	13.00	9.00	4.00	10.00	7.00	10.50	11.50	2.71	22.00	106.71
22	Montpellier	2010+2011	5.00	9.00	11.00	6.50	8.50	10.00	7.50	8.00	7.50	10.75	4.14	18.00	105.89
23	Sabadell	2010+2011	2.00	8.00	11.00	8.00	7.50	11.00	8.75	9.25	8.75	9.50	3.71	14.00	101.46
25	Valencia	2011	5.00	6.00	10.00	6.00	8.50	9.00	9.00	5.00	11.50	7.50	3.57	18.00	99.07
24	Zaragoza	2010	7.00	8.00	10.00	11.00	5.50	6.00	8.75	6.50	7.25	8.75	4.57	14.00	97.32
26	Espoo	2010+2011	5.00	8.00	12.00	8.00	7.00	10.00	7.50	7.00	8.50	7.75	3.21	8.00	91.96
27	Rotterdam	2010	6.00	9.00	11.00	10.00	10.50	6.00	5.00	2.00	5.50	0.00	3.29	20.00	88.29
28	Magdeburg	2011	6.00	7.00	10.00	6.00	5.00	6.00	7.75	8.50	8.50	8.50	3.71	10.00	86.96
29	Rīga	2011	1.00	6.00	8.00	8.50	4.00	8.00	9.00	5.00	9.75	6.75	2.86	18.00	86.86
30	Tampere	2010+2011	3.00	7.00	11.00	8.00	6.00	7.00	8.00	6.50	10.25	7.25	2.29	8.00	84.29
31	Vilnius	2010+2011	1.00	1.00	8.00	13.00	6.50	3.00	3.00	6.50	6.50	5.00	2.86	18.00	74.36
32	Lisbon	2010	2.00	7.00	8.00	3.00	6.50	8.00	3.50	3.50	0.00	1.00	2.29	8.00	52.79
33	Cluj-Napoca	2010	0.00	4.00	7.00	7.00	4.50	5.00	3.00	1.50	5.50	3.00	1.00	8.00	49.50
34	Łódź	2010+2011	2.00	5.00	12.00	3.50	6.50	6.00	5.50	3.00	0.00	0.00	1.14	0.00	44.64
35	Kaunas	2010+2011	0.00	3.00	0.00	4.00	4.00	1.00	2.50	1.50	1.00	0.00	0.00	0.00	17.00



## Annex II Overview of evaluation of 8 short-listed cities for the European Green Capital Award of 2010 & 2011

Rank	City	No of inhabitants	Year	1. Local contribution to global climate change	2. Local mobility and passenger transport	3. Availability of green areas open to the public	4. Quality of local ambient air	5. Noise pollution	6. Waste production and management	7. Water consumption	8. Waste water management	9. Sustainable management of the local authority	10. Sustainable land use	11. Dissemination programme	Presentation	Grand Total
1	Hamburg	1760322	2010+2011	12,5	12	11	14	11,5	13,4	12,5	12,5	13	10	20	19	161,4
2	Stockholm	795163	2010+2011	12,5	12,5	13	13	14,5	13,8	8	11,5	12	11,5	18	17	157,3
3	Münster	280200	2010+2011	9,5	12,5	13	14,5	13	11,4	11	11,5	13	10	20	16	155,4
4	Amsterdam	747290	2010	10,5	13	12,5	15	10,5	12,8	11,5	10,5	13	11	15	15	150,3
5	Freiburg	219430	2010	9	12,5	13	13	12	13,2	7,5	12	13	10,5	16	16	147,7
6	Oslo	550000	2010+2011	10	11	13	15	13	11	5,5	9	12,5	10	17	16	143,0
7	Bristol	410500	2010+2011	7	8	12	14	9,5	10,2	9,5	7	13	10	20	16	136,2
8	Copenhagen	503699	2010+2011	8,5	12	10	12	10,5	12,6	13,5	10	12,5	11	10	9	131,6