



Benchmarking Energy Sustainability in Cities

Scientific Workshop

Organized by Joint Research Centre – European Commission and Politecnico di Torino

via Nizza 230, Politecnico di Torino, 10126 Torino (Italy),
25 November 2014

Introduction

Energy efficiency is a strategic component of urban sustainability. The aim of this workshop (WS) is to address the use of benchmarking techniques in energy efficiency and sustainability as a management tool in the context of urban and local community actions towards sustainability.

Furthermore, the WS will identify and discuss methodologies and tools to measure urban sustainable energy and energy efficiency in cities, i.e. benchmarking.

It is well known that the standard benchmarking techniques, such as per capita or GDP normalization, are missing important features of the collected data used for benchmarking. Rigorous benchmarking techniques are likely to play an increasingly important role for policy-making authorities and for local authorities to assess their energy efficiency actions, to monitor their performance, exchange experience and learning from each other.

In order to have reliable and robust techniques for benchmarking, different available databases on energy consumption, data on their location, statistical and energy performance assessment methodologies should be integrated. For this reason, a special session is dedicated to databases, methodologies and GIS based tools for assessing energy sustainability in urban areas.

Agenda

Tuesday 25 November 2014

Welcome and Keynote session – high level representatives from:

9.00– 9.30

- Politecnico di Torino, Marco Gilli, Rector
- European Commission DG JRC – Institute for Energy and Transport, Giovanni De Santi, director,
- Municipality of Torino, Enzo Lavolta, deputy mayor

Session 1 – Monitoring Sustainable Energy Action Plans in Cities

9.30 – 12.30

Chair of the session: *Paolo Bertoldi, IET- European Commission-Joint Research Centre*

1. The Covenant of Mayors Initiative: 6 years Assessment Report of the CoM Initiative. Institute for Energy and Transport EC- Joint Research Centre. CoM JRC speaker;
2. Torino Energy Action Plan- Monitoring phase. Politecnico di Torino. Roberto Pagani;
3. Strategies Towards Energy Performance and Urban Planning in Glasgow, Ghent, Riga and Gothenburg: STEP UP. Coordinator of the project, Nickolas Purshouse.

10.30-10.50 Coffee break

4. The carbonn Climate Registry (cCR). ICLEI World Secretariat, Bonn, Germany, Ana Marques;
5. Climate and Energy Targets of Selected U.S. Cities: Progress Toward Their Achievement and Related Implementation Lessons Learned. American Council for an Energy-Efficient Economy, David Ribeiro;
6. International Standards for Cities and the World Council on City Data a next step for smart cities. World council Data, Nico Tillie.

11.50-12.30 Roundtable discussion

12.30- 13.30 Lunch break

Session 2 – Benchmarking Energy Sustainability in Cities

13.30 – 15.45

Chair of the session: *Giovanni V. Fracastoro, Politecnico di Torino*

7. Benchmarking Urban energy efficiency in the UK: Imperial College London, UK, James Keirstead;
8. BEST, GREAT, and ELITE: A low carbon eco-city evaluation tools. Lawrence Berkeley National Laboratory, Berkeley, USA, Nan Zhou;

9. Identifying the methodological characteristics of European green city rankings. Wageningen University, The Netherlands, Jurian V. Meijering; Leibniz Institute for Regional Development and Structural Planning & University of Potsdam, Germany, Kristine Kern;
10. Energy efficiency rating of districts, case Finland. Finland, VTT Technical Research Centre of Finland, Asa Hedman;
11. Benchmarking for Comparative Analysis of International Airports Based on a Sustainability Ranking Index. KTH Royal Institute of Technology, Şiir KILKIŞ.

15.10-15.45 Roundtable discussion

15.45-16.00 Break

Session 3 – Databases, Methodologies and GIS based tools for Benchmarking Energy Sustainability in Cities

16.00 – 18.00

Chair of the session: *Marco Masoero, Politecnico di Torino*

12. Planning model environmental data in Province of Venice. e-ambiente, Gabriella Chiellino;
13. Multi-criteria methodology for SEAPs. Politecnico di Torino. M. F. Norese.
14. New bottom-up methodology to evaluate winter thermal energy needs and fuels consumption in the residential sector. Politecnico di Torino, Giulio Cerino Abdin;
15. Standard geodata models for Energy Performance of Buildings: experiences from Sunshine and GeoSmartCity projects. Sinergis, Piergiorgio Cipriano.

17.20-18.00 Roundtable discussion

End of the workshop