Promoting energy efficiency standards in buildings in the ECE region

Domenica Carriero
Housing and Land Management Unit
Forests, Land and Housing Division, UNECE
Building sector: statistics

- 30% of total final energy consumption
- 50% of global electricity demand
- 30% of energy-related GHG emissions
- 12% of global fresh water use
- 40% of waste
- 5-10% employees at national level
Geneva UN Charter on Sustainable Housing

**Main purpose:** to ensure a high quality of life to their citizens through the provision of adequate, safe, healthy housing and sustainable cities.

UNECE endorsed the Geneva UN Charter in **April 2015**
Standards on Energy Efficiency in Buildings - timeline

Cooperation: Committee on Housing and Land Management and Committee on Sustainable Energy and Working Party 6

2014
- Proposal for developing a study on standards for EE in buildings (ECE/HBP/2014/4) accepted by the Committee on Housing and Land Management

2015
- Survey on building standards and regulations
- Expert Consultation on EE standards in buildings

2016
- Establishment of a UNECE Joint Task Force on Energy Efficiency Standards in Buildings

2017
- 1st Meeting of the Joint Task Force
Survey of member States on Building Standards and Building Regulations

Q3. Respondents per subregion

- EU15: 38.1%
- EU12: 13.1%
- Russian Federation, Eastern and South-Eastern Europe, the Caucasus & Central Asia: 32.1%
- USA & Canada: 6.0%
- Other: 10.7%

March 2015

Q14. Main challenges in developing or updating building standards and regulations

- Lack of knowledge: 3.36
- Lack of information: 3.32
- Lack of experts/expertise: 3.15
- Lack of awareness: 2.82
- Lack of funds: 2.81

Q16. Priority areas

- Thermal performance of buildings and building components: 74.1%
- Construction materials: 53.7%
- Minimum habitable standards for a healthy and safe living: 51.9%
- Heating and water-based cooling systems in buildings: 42.6%
- Lighting: 27.8%
- Other: 27.8%
- Electrical appliances: 20.4%
Outcomes of the Expert Consultation

HOUSING AND LAND MANAGEMENT

Joint Task Force on EE Standards in Buildings

Suggested activities:
- Mapping EE standards for buildings and preparing gap analyses
- Mapping existing technologies and technology foresight
- Preparing guidance materials
- Establishing a database of experts
- Promoting partnerships
- Developing and organizing training programmes
Next steps: Joint Task Force

HOUSING AND LAND MANAGEMENT

Sep. 2017 - Dec. 2018

Activities:
- Mapping of EE standards in buildings
- Mapping of technologies for EE standards
- Online database of experts
- Gap analysis and roadmap
- Best practices compendium
Thank you!

Domenica Carriero
Housing and Land Management Unit, UNECE
Email: domenica.carriero@unece.org
Tel.: +41 (0) 22 917 16 72
Website: www.unece.org/housing