



EUROPEAN
COMMISSION

Community research

EeB.NMP.2010-2

New technologies for energy efficiency at district level

Technical content / scope:

The main objective of the topic is **to develop new technologies and methods** to help **reduce the energy consumption and environmental impact of buildings** during their entire life-cycle (80% of energy consumption occurs during service-life) **at district level**, since this cannot be achieved only at building level.



EUROPEAN
COMMISSION

Community research

EeB.NMP.2010-2

The main focus is on:

- **new concepts, technologies, design tools and business models at district level for "intelligent buildings"**, able to significantly reduce or even completely meet their own energy consumption;
- **improvement of the building energy performance** (through cladding and ventilation technologies, sensors, actuators and pervasive computing systems, utilisation of embedded renewable energy sources, etc.).
- Developments are also required at district level addressing **new and improved materials and structures** to improve the indoor environment as well as resource and climate, energy consumption conversion, storage capacities and energy carriers.



EUROPEAN
COMMISSION

Community research

EeB.NMP.2010-2

Deliverables include:

- the **development, integration and demonstration**, if possible at district level, **of decision support systems and assessment tools** of the above Concepts:

- social housing,
- residential buildings,
- offices,
- public buildings:
 - hospitals,
 - schools and universities,
 - railway- and underground-stations,
 - airports,



EUROPEAN
COMMISSION

Community research

EeB.NMP.2010-2

- The projects are expected to cover **demonstration activities, including pilot implementations in industrial settings.**
- In order to ensure industrial relevance and impact of the research efforts, the **active participation of industrial partners, including SMEs,** represents an added value to the activities.



EUROPEAN
COMMISSION

Community research

EeB.NMP.2010-2

Expected impact:

- The new technologies should contribute to a **reduction of 50% in energy consumption compared to the 2005 values.**
- The benefits for applying the new technologies at district level are expected to represent a **significant reduction (around 20%) of the total costs compared to existing solutions.**
- **The return on investment** for these additional costs should be preferably **not more than 7 years**, both in the case of new construction and retrofitting.

Funding scheme: Collaborative projects.



Thank you for your attention!

Questions?

Patrice Millet, Project Officer, RTD G2, New Generation of Products