



Energy Efficiency and Eco-Products in the construction sector: the role of Engineers



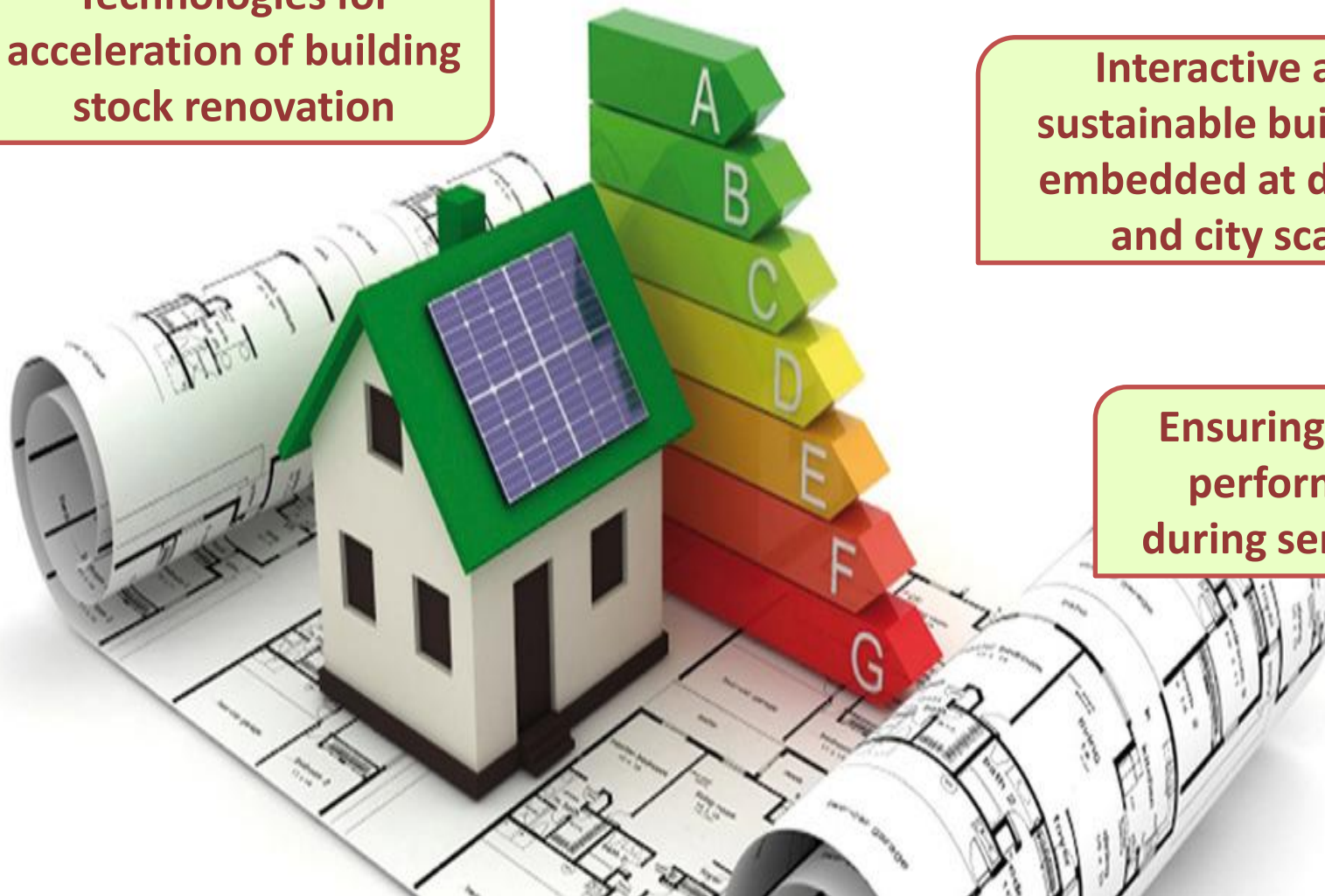
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- **Sustanaible Building** is a central theme in Europe because it represents a new approach in the way of Building, i.e. a better attention to the sustainable and balanced use of materials and resources.
- The qualifying objective is the improvement of the quality of citizens life, to be obtained balancing the different needs (organizing, economic, aesthetical) with the **bio-compatibility and eco-sustanaibility**.
- From this point of view, when we speak of Sustainable Building, we have to satisfy all the following parameters: **Energy Efficiency, Low Environmental Impact, Safety**.

**Technologies for
acceleration of building
stock renovation**

**Interactive and
sustainable buildings
embedded at district
and city scale**

**Ensuring energy
performance
during service life**





**Active role of
architects,
designers, users and
clients in
retrofitting/
refurbishment
projects**



THE DISTRICT DIMENSION



50% Reduction of Embodied Energy

Lowest use of energy in the production of binders



Improvement of Properties of Thermal Isolation

Use of Lightweight Aggregates with high isolation properties



50% Reduction of CO₂ Emissions

Use of raw secondary materials



Cost Reduction

Use of raw secondary materials



Eco-Sustainable Concrete

100% raw secondary materials

- Suscon is a very strategic project for the future of Construction sector and, consequently, for the supply chain:
 - Designers (Architects, Engineers, ect)
 - Enterprises;
 - Materials and components providers (mortars, concrete, panels, bricks, ect.)

- When we speak of sustainability, recyclability, green materials, we have to consider that the European engineers are not close to these concepts in their normal professional activity.
- So, it is very strategic that the European Commission funds Research projects concerning these themes because today we need of:
 - Research in order to improve the state of the art in the building field;
 - Information in order to help engineers to grow in their technical knowledge;
 - Information and training in order to transfer technical data, rules to Public administrations (Public Works).

So, thanks to the protagonists of this project:

- Cetma
 - Mr Largo and all the CETMA researchers involved in this fantastic and difficult run long 4 years;
- All the partners for their decisive contribution to the achievement of technical and scientific results (new optimised green concrete mixtures, new green panels, new green bricks;
- European Commission for the economic support and the rigid methods in order to verify the quality of the research results



The Italian Orders of Engineers will be always sensible to these Innovative Projects because we are convinced that engineers cannot work for the economic progress of Europe without thinking to the environmental impact of their technical choices.

Let's go on.....



Thanks for your attention!



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