European Construction Technology Platform
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The INTEGRATED SAFE & SMART BUILT CONCEPT

Development at EU level of an earthquake – vibration - noise - fire safe "intelligent house" concept to account for long-term seismic and fire safety through collaboration of the structure with components and monitoring systems.

I-SSB couples modern construction practices (lightweight steel frame modular buildings) with Information Technologies and advanced materials

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I-SSB

www.issb-project.com

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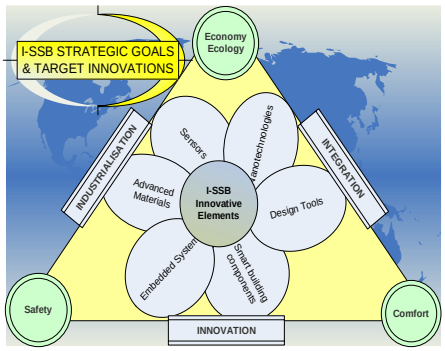
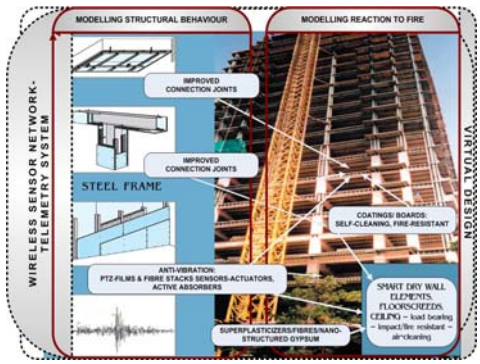


ACHIEVEMENTS

- New high performance and nano-manufactured self-healing materials
- New sensors/actuators for early recognition and active monitoring/control of building components under dynamic vibrations, noise conditions and fire.
- New wireless electronic network controlling safety parameters.
- New production processes for prototype smart dry-wall systems.
- Improved building design accounting for roof, wind, seismic load and fire safety parameters.
- Advanced computational tools for fire-structure interactions – Linking to certification procedures.
- Improved construction practices – Re-engineering of construction processes.
- Life cycle management strategies – Risk assessment analysis.



HOUSE CHARACTERISTICS

- Modular
- Steel skeleton
- Dry-wall systems
- Lightweight
- Components
  - ✓Intelligent
  - ✓Multi-functional
  - ✓Load bearing
  - ✓Self-healing

The I-SSB concept consists of a maximum of pre-engineered elements in combination with building components to be assembled on site. All electronic devices will be included in the pre-engineered elements and building components.