DEVELOPMENT OF PLANNING AND MANAGEMENT TECHNOLOGIES FOR THE ULTRA-LONG-LIFE HOUSES

Aim

Establishing new picture of houses with an inherent system capable for an ultra-long-term maintenance.

Newly-built houses

- •Preservability
- •Supply methods
- •Durability
- •Seismic safety
- •Variability
- •Modifiability
- •Safe site
- •Promotion methods for retrofitting
- •Retrofitting techniques appropriate for each performance level

Existing houses

Focus

Planning and management system
- •Target performance level
- •Design, construction and management techniques
- •Supply methods

Advanced technologies for check and retrofit
- •Design, construction and management techniques
- •Diagnosis and evaluation techniques
- •Cost-benefit evaluation method

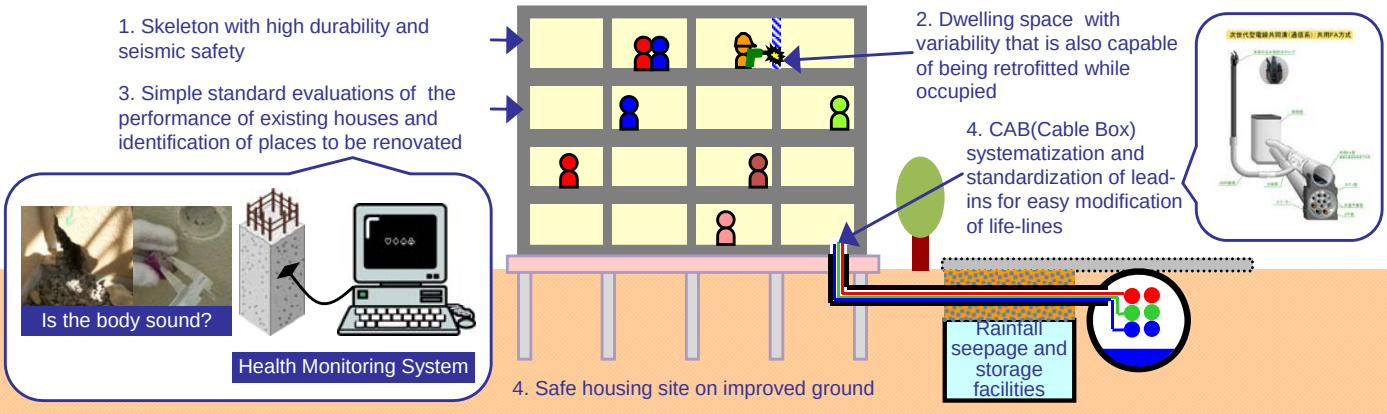
Health monitoring for houses
- •Monitoring techniques for soundness assessment
- •Diagnostic techniques
- •Function recovering techniques

Housing site and infrastructure management
- •Target performance level
- •Seismic safety of the housing site
- •Updatable space for pipes and wire equipments

Requirements

1. High durability and seismic resistance, etc. that can lower the risk of natural disasters
➢Confirming greater durability of the skeleton
➢Confirming high seismic resistance including non-structural members and equipments
➢Confirming resistance to storms and floods

2. High space variability and equipment modifiability to respond to changes in lifestyles and the needs of daily life
➢Structures (floors, walls, etc.) that can be modified to expand dwelling space
➢Retrofitting of occupied houses that is harmless to the residents and the environment



3. Long-term high-quality maintenance
➢Deteriorating parts can be specified easily by a system that constantly evaluates and inspects the performance of the Skelton for an ultra long term.

4. Safer sites and sustainable infrastructures for ultra-long-life houses
➢Development of technologies such as improving seismic safety of existing housing sites in an environmentally friendly way

Outcomes

- •Technical standards for planning
- •Maintenance/management technologies
- •Safer and much sustainable housing sites
- •Evaluation techniques for existing houses ,etc.

Effects

- •Formation of housing stock as social assets
- •Contribution to realizing sustainable society
- •Reduction of housing costs
- •Reduction of environmental load

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Housing Department, National Institute for Land and Infrastructure Management (October, 2008)