



LIFETIME ENGINEERING of Buildings and Civil Infrastructures

Thematic Network LIFETIME contributes to European and worldwide development of a more sustainable built environment by producing and promoting principles, processes and methods of lifetime engineering.

Working Package 3: "Exploring, analysing and benchmarking of technical and methodological contents of lifetime engineering and supporting standardisation"

Responsible Principal Contractor: VTT Technical Research Centre of Finland

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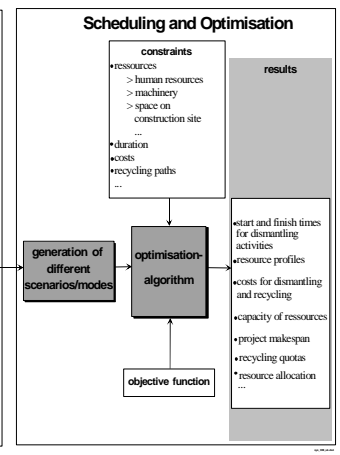
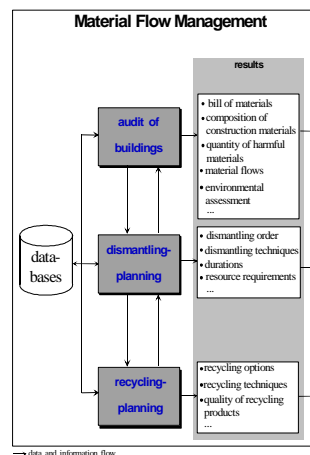
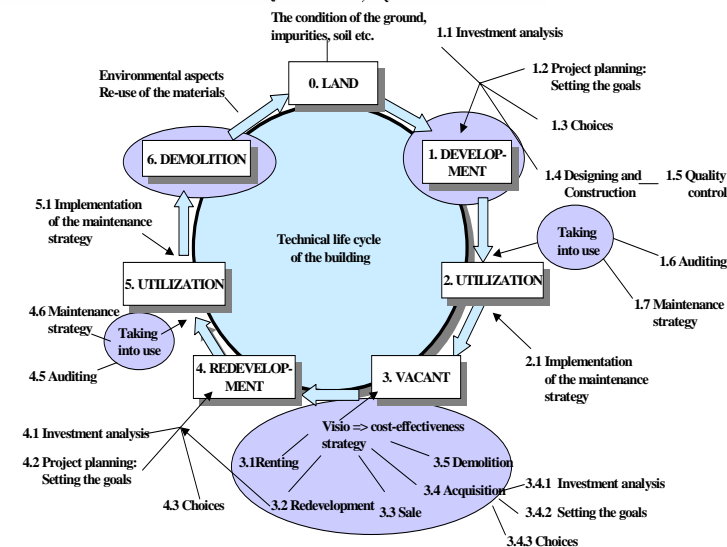
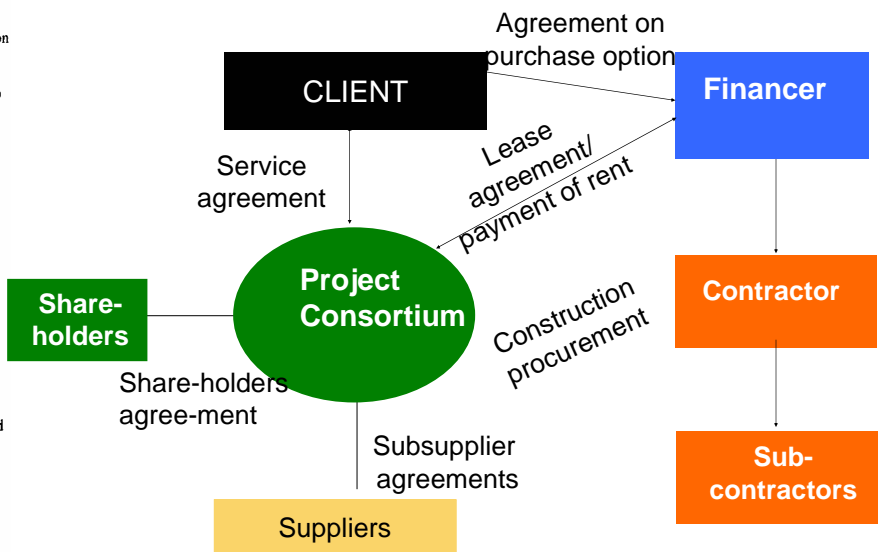
COMBINING SUSTAINABILITY, BUSINESS AND TECHNOLOGY

Planning and Design Procurement and construction Facility Management End-of Life-Management

Planning and Design phases, tasks and methods of integrated life cycle design.

Design phase	Lifetime Design Methods
1. Investment planning	Multiple criteria analysis, optimisation and decision making (MADA)
2. Analysis of client's and user's needs	Life cycle (monetary and natural) economy (LCC) Modular design methodology (MDM)
3. Functional specifications of the buildings	Quality Function Deployment Method (QFD) Modular design methodology.
4. Technical performance specifications	Quality Function Deployment Method (QFD) Modular design methodology. Quality Function Deployment Method (QFD)
5. Creation and sketching of alternative structural solutions	Modular design methodology. (MDM)
6. Modular life cycle planning and service life optimisation of each alternative	Modular design methodology. (MDM) Modular service life planning.
7. Multiple criteria ranking and selection between alternative solutions and products	Life cycle economy (monetary economy LCC and natural economy LCE) calculations. Modular design methodology. MDM Quality Function Deployment Method (QFD).
8. Detailed design of the selected solution	Multiple Criteria Analysis, optimisation and decision making (MADA) Design for future changes Design for durability Design for health Design for safety Design for hydro-thermal performance. User's manual. Design for reuse and recycling

LIFETIME PERFORMANCE AND COST MANAGEMENT - LIFETIME VALUE MANAGEMENT



Principal contractors of Thematic Network LIFETIME:

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- Taylor Woodrow Construction Ltd, UK
- CSTB Centre Scientifique et Technique du Bâtiment, FR
- Imperial College of Science, Technology and Medicine, UK
- Universität Karlsruhe (TH), TMB/Facility Management, DE



Thematic Network LIFETIME in figures:

- Working period: 1/6/2002 - 31/5/2005
- Participation: 96 partners from 28 countries
- Plenary workshops: 2002 Norway, 2003 Finland and 2005 France
- 25 National Dissemination Groups
- Funding from 5th Framework Programme: Competitive And Sustainable Growth (GROWTH)