Flexibility as enabler of sustainability

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Session: What are the challenges for Sustainable Development of FM?

Interesting interfaces

Project management

Construction management

Facility management

Literature review

Journal	Keyword hits in search	Articles removed based on abstracts	Final sample of articles
Facilities	12	2	10
International Journal of Project Management (IJPM)	23	8	15
Construction Management & Economics (CME)	20	4	16
Total	**55**	**12**	**43**

Interesting interfaces

Project Management

Construction Management

Facility Management

Succeeding at sustainability?

- …Sustainability is interdisciplinary
- …Sustainability is holistic

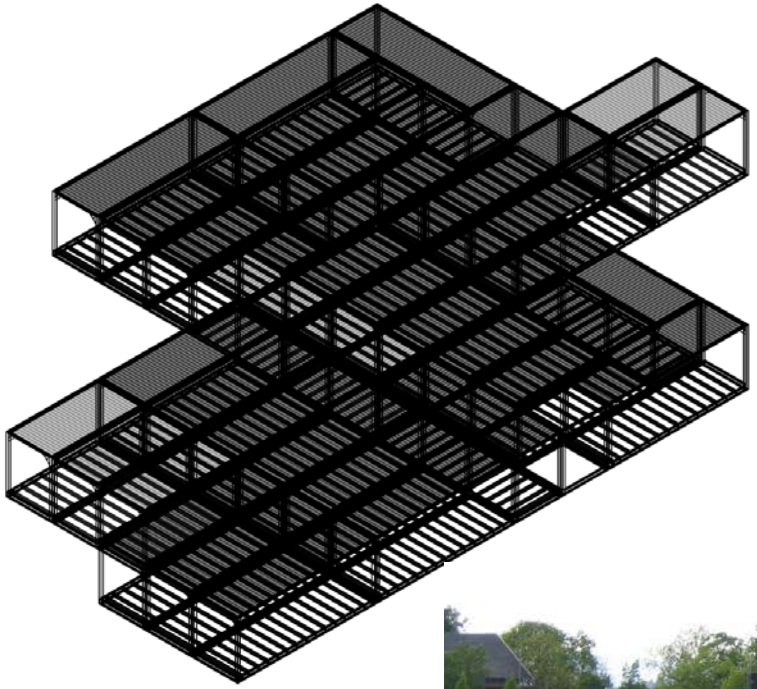
- …sustainability is (in practice) a balancing act
- …do we even know what is to be sustained?

Construction by modules

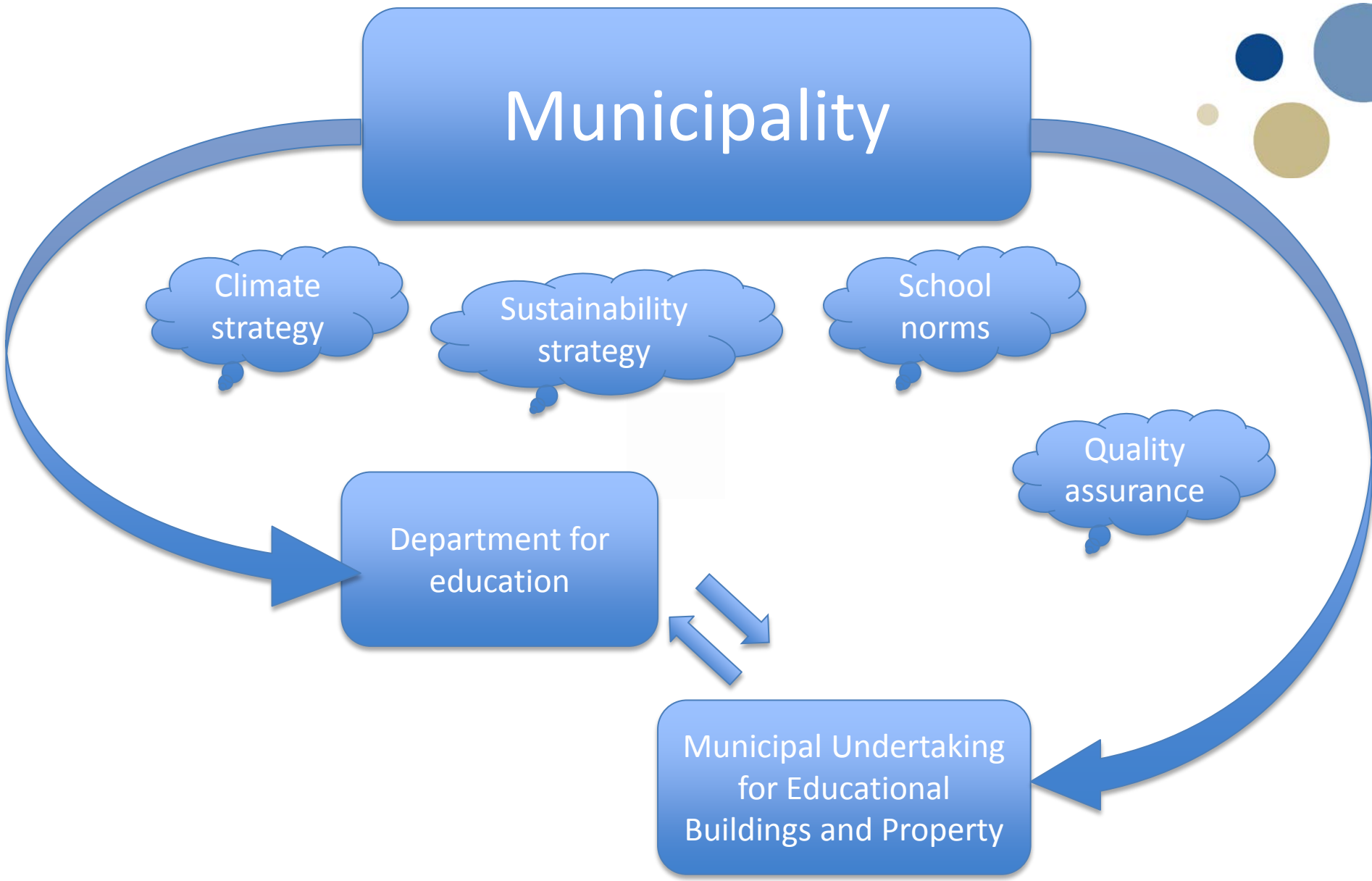
- Modularity is a concept within both construction and project management
  - By applying modularization, a project can be split in several sub-projects with the freedom to explore and apply particular solution(s) suited their needs.
- In construction, modularity is an approach where components of the building are preassembled in modules at a factory before being transported to the construction site for installation.
  - Associated with concepts such as prefabrication, pre-assembly and off-site fabrication.
  - Modularization allows for parallelization as groundwork and module construction can be executed at the same time.

Effects over the project life-cycle of module based construction

	Front-end	Planning	Execution	Operations	End-of-life
Project Management	Reliability in estimates	Reductions in planning time	Speed	Easier hand-over	Plan for end-of-life
Sustainability	Known resource use		Optimized production	Optimized for operations	Design for end-of-life/cradle to cradle
Facilities Management	Client, owner and user needs	Efficient implementation of solutions	Ensuring that design intentions are fulfilled	Benefit of learning	Experience feed-back to future projects



Illustrative case: Oslo's Super Cubes


Municipality
Climate strategy
Sustainability strategy
School norms
Quality assurance
Department for education
Municipal Undertaking for Educational Buildings and Property

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Summing up:

- Sustainability is an important issues within project management, facilities management and construction management
- Flexibility is a shared approach to sustainability in the three disciplines
- Construction by modules can introduce flexibility and other capabilities related to sustainability