

Establishing Sustainability: Policy Successes and Failures



September 11, 2008

Simpósio Brasileiro da Construção Sustentável 2008

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Do we succeed?

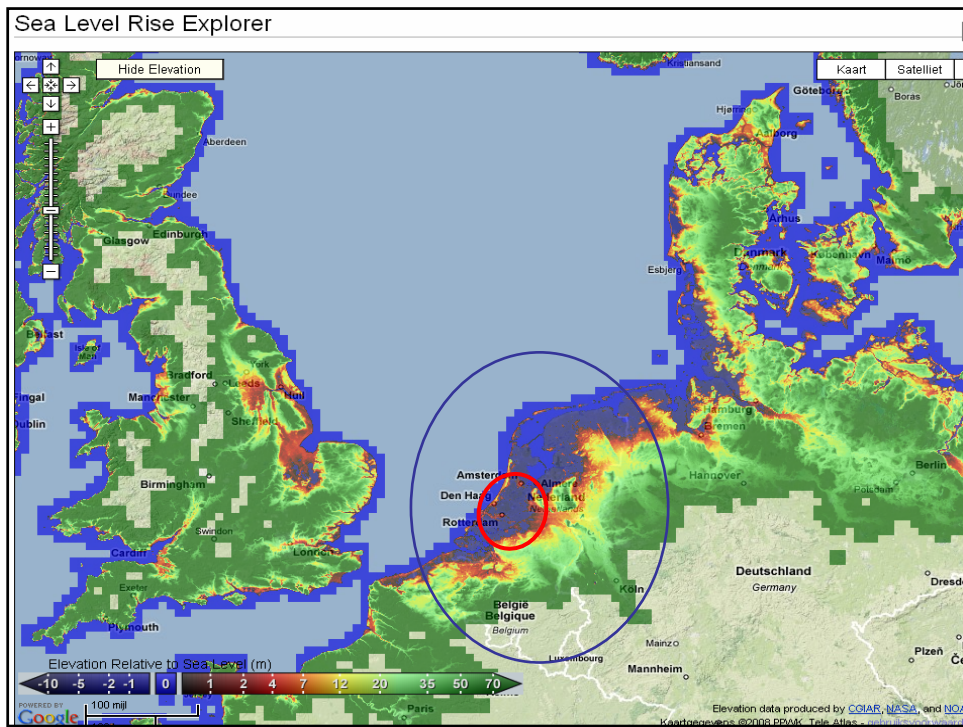
- So many successful policies in support of a sustainable built environment,
- But the problem persists.



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Floating cities



Source: DeltaSync / TU Delft

This presentation

- Overview of institutional barriers
- And opportunities to overcome them.



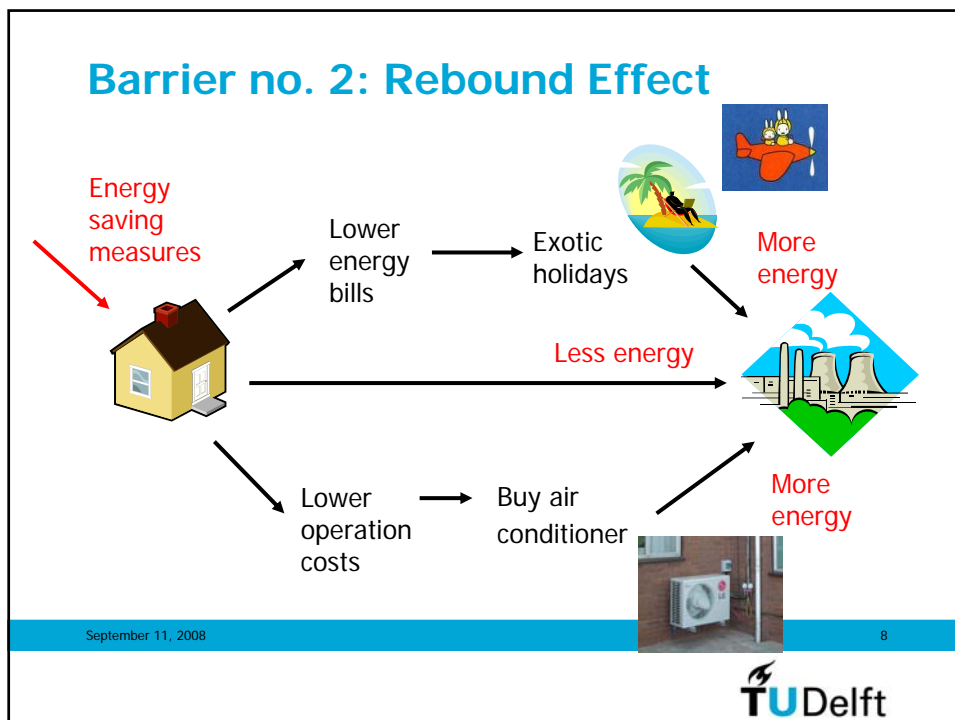
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Barrier no. 1: Ambiguity



Barrier no. 2: Rebound Effect



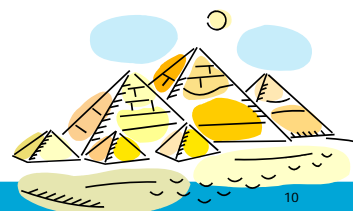
Barrier no. 3: who cares?



No matter how strong the wind; we play!

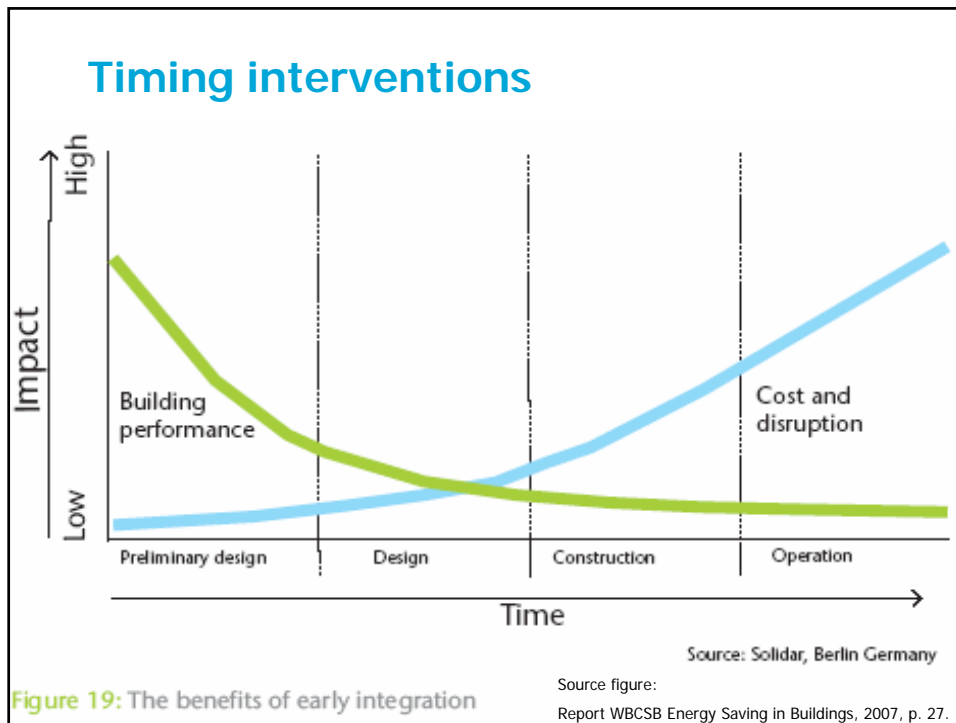
Problem no. 4: Product characteristics

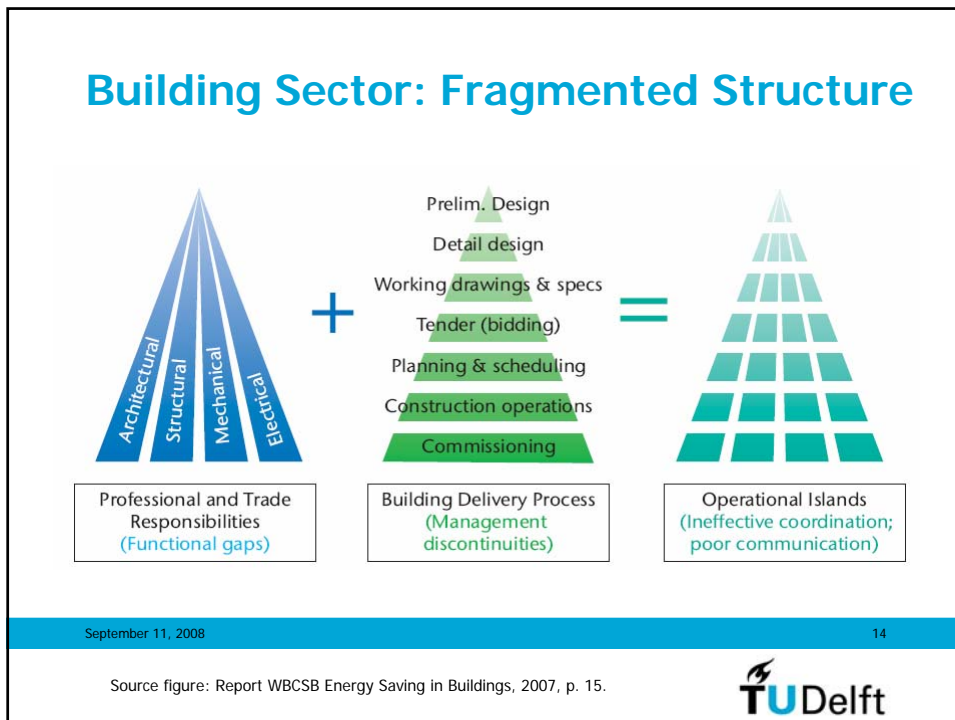
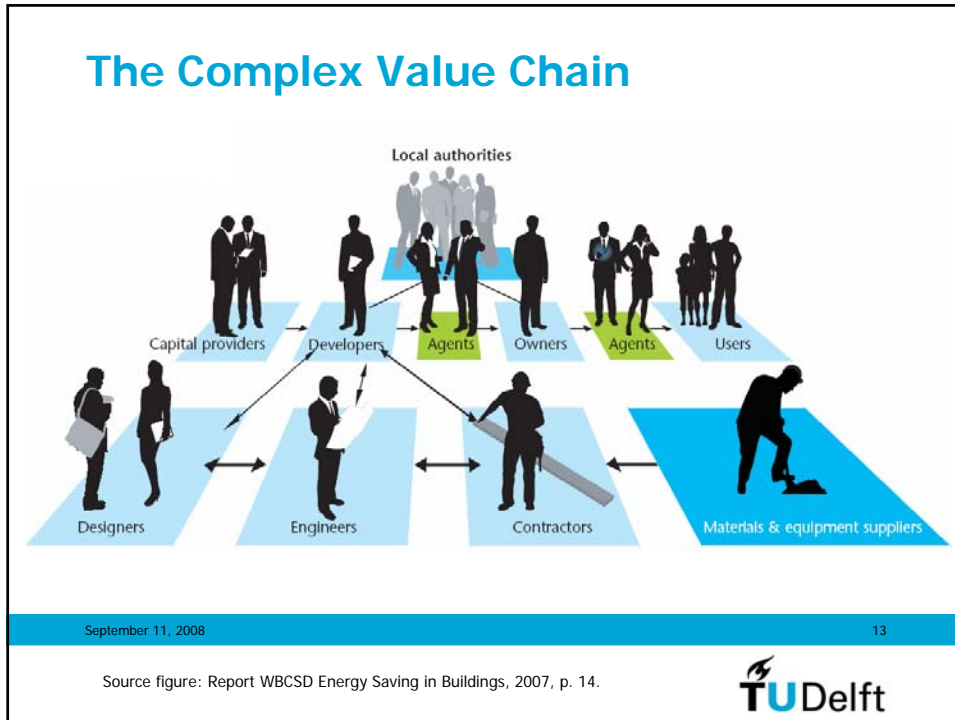
- On site production
- Long life time
- Low flexibility



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Co-ordination problems...

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Picture: prof. Kees Duijvestein



Short-term planning

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Perceptions of costs and benefits

“What percentage of CO₂ emissions do you think buildings give rise to – directly and indirectly?”

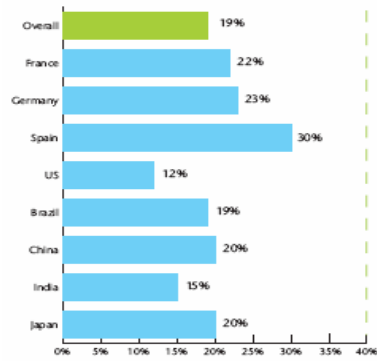


Figure 11: Estimates of buildings' contribution to total emissions

“How much more do you think a certified sustainable building would cost to build relative to a normal building?”

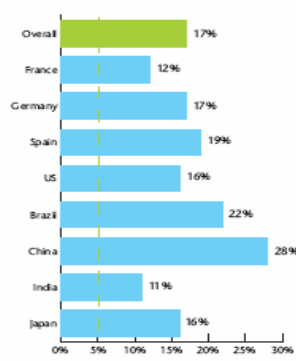
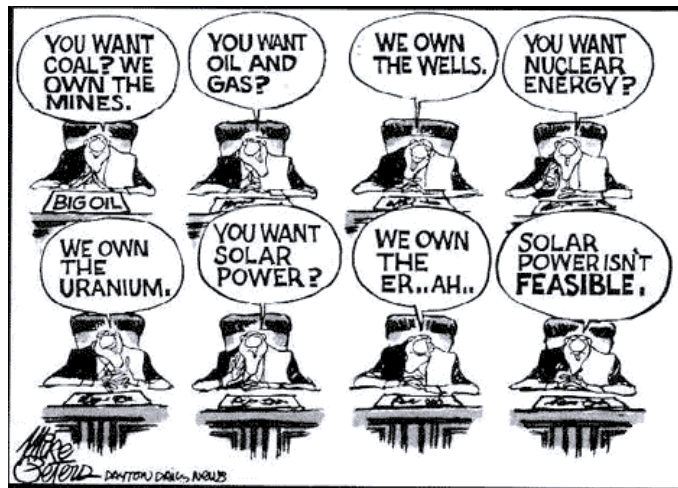


Figure 12: Estimates of cost premium for “a certified sustainable building”

Source figures: Report WBCSB Energy Saving in Buildings, 2007, p. 18.

Many small players, few big ones



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Cartoon Cover Book “Solar Gas” by David Hoye

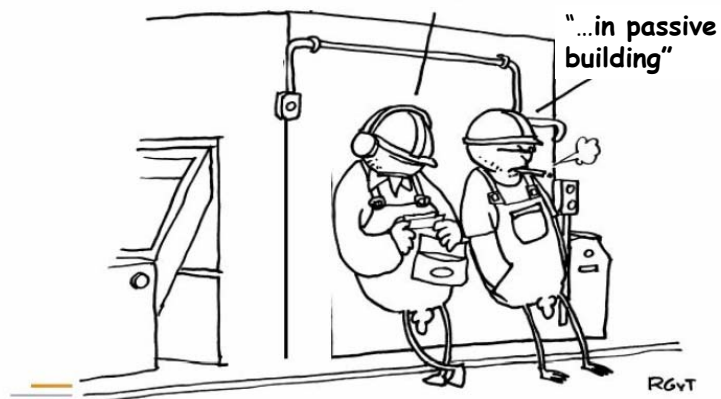


Conservative culture

FOKKE & SUKKE

Do not consider it to be innovative

"We have been
specialists for years..."

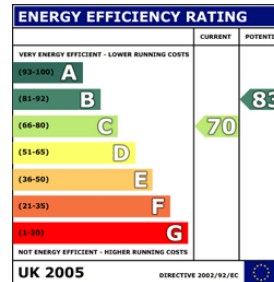


Can we overcome these barriers?



Government initiatives

- Regulate supply
- Prescribe ends instead of means
- Stimulate demand: tax reductions
- Measure and monitor
- Fund research



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Government initiatives

Advantages

- Large scale implementation
- Stimulates innovation

Threats

- Ambiguity of sustainability
- Absence of sanctioning
- Slowest innovator sets the pace and norm



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Construction Sector Initiatives

Self-regulation

- Labeling and certification



breeam



Innovative forms of procurement and contracting, e.g.:

- Design, Build, Operate, Transfer; DBFM, etc.
- Public Private Partnerships



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Construction Sector Initiatives

Opportunities:

- Stimulates innovation
- Reduces risk averse behavior
- Stimulates lifecycle costing

Threats:

- Legalistic approach hinders innovation
- Focus on monetary values
- Restricted to niche markets

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Planning Sector Initiatives

- Participatory planning: involve end-users of the built environment in planning and decision-making
- Interactive planning: involve professional stakeholders in planning and decision-making



Important role for workshop methods, supported by DSS, GIS, and visualization tools



Participatory Planning

Opportunities:

- Creates support
- Prevents legal procedures
- Makes users familiar with the plan
- Use of local / user knowledge

Threats:

- Takes time
- Who should participate?
- What should be the agenda?



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Interactive planning

Opportunities:

- Shared problem understanding
- Negotiated knowledge

Threats:

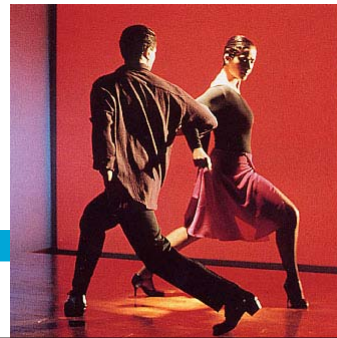
- Takes (too much) time
- Who should participate?
- Agenda constraints?
- Which methods used?



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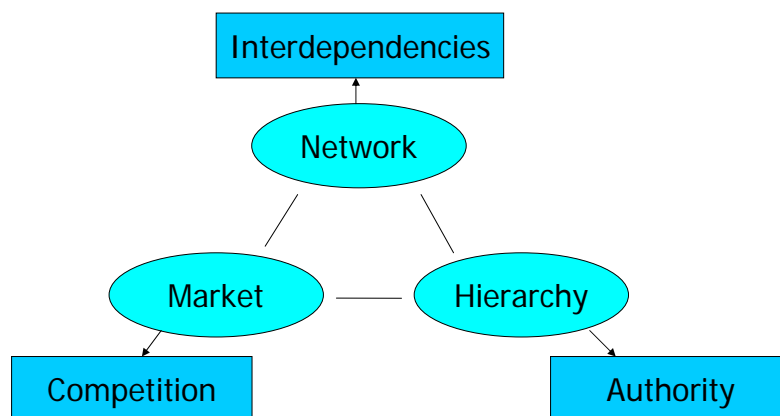
Opportunities to overcome barriers

- Actors have to collaborate
- Negotiated knowledge
- Shared understanding
- Joint priority setting
- Slow, incremental process
- Management of process is needed
- Make use of external forces/trends



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Process management: make use of 3 relevant forces in decision-making



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Source: De Bruijn et al. 2002

