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Successful Business Models

ICT for Sustainable Homes

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The Business voice on sustainable development



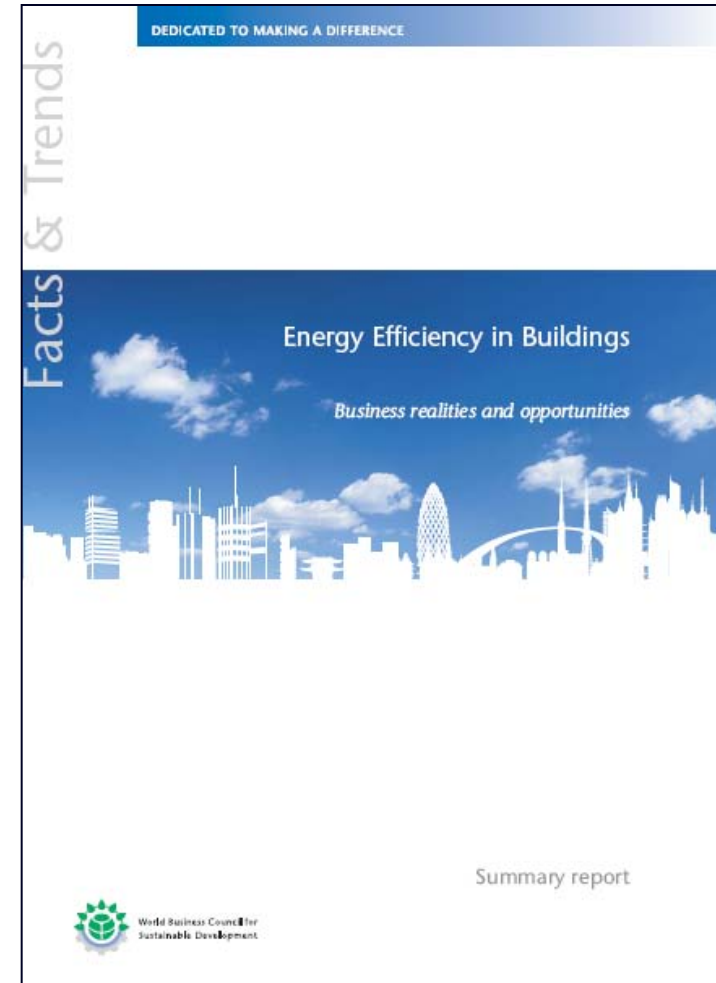
World Business Council for Sustainable Development

Coalition of 200+ large corporations



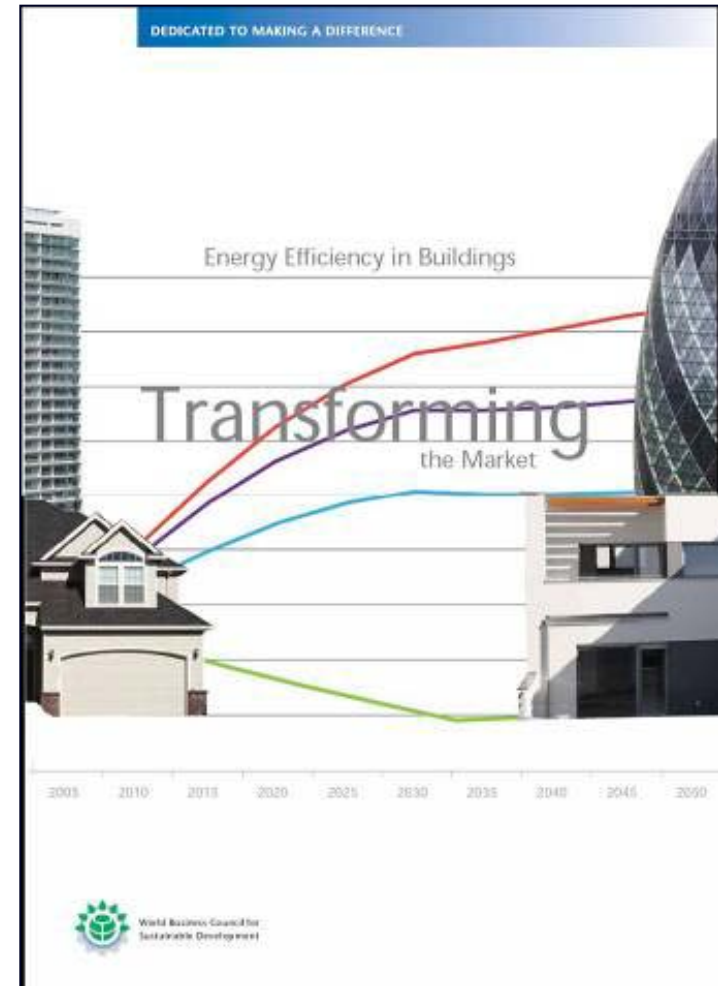
1st EEB report – a real success in 2007

- ⇒ Basic facts & trends of energy use in buildings (Brazil, China, India, EU, Japan, USA)
 - ⇒ Unique global perception study on green/sustainable buildings
-
- 50'000+ downloads
 - 10'000 hard copies
 - Available in English, Chinese, Japanese, Spanish, Portuguese and Russian
 - Teaching reference in 6+ universities



2nd EEB report – a response by sub-market

- ⇒ Unique model that quantifies public policies
 - ⇒ Recommendations by segment
 - ⇒ Detailed roadmap on how to achieve transformation
-
- 35'000+ downloads
 - 15'000 hard copies
 - 140 articles in international media
 - Available in English, Korean, Chinese, French, Japanese, Spanish, Portuguese and Russian

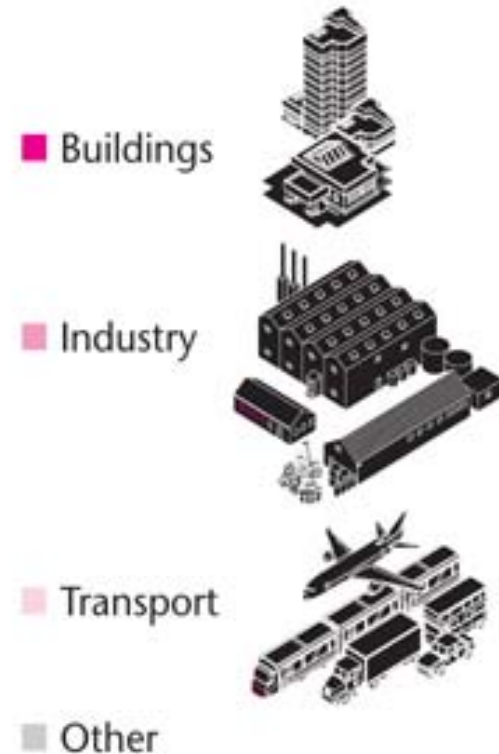
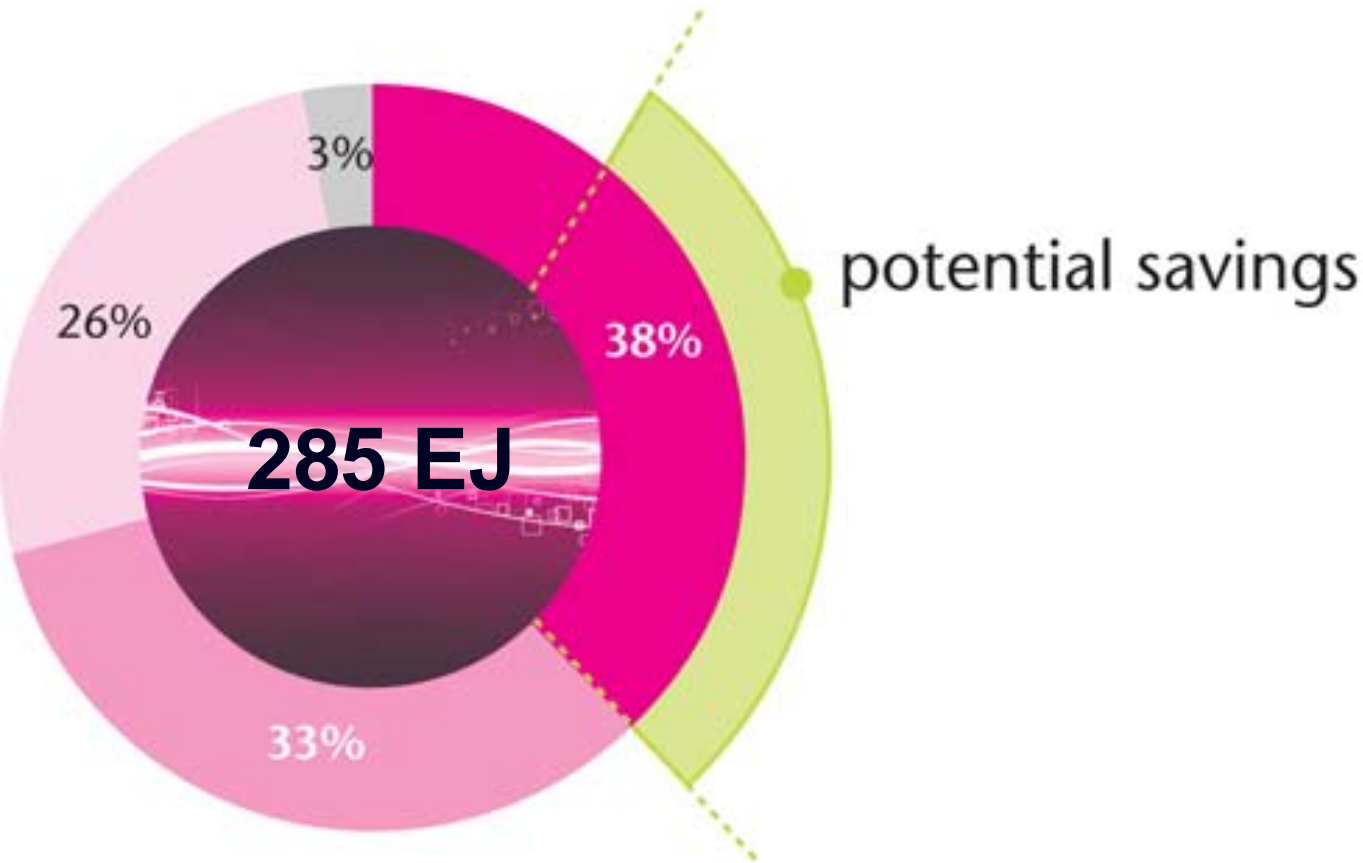


The construction sector is responsible for

- 38% of total final energy
- 30% of green house gas emissions
- 40% of natural resources
- 10% Global GDP
- 7% Jobs

Governments realize that buildings can no longer be ignored

2005 total final energy consumption





Green buildings

A niche becomes mainstream

Current Issues

Energy and climate change

Deutsche Bank Research



Green buildings

A niche becomes mainstream

April 12, 2010

The building sector has immense environmental impacts. It accounts for 42% of the EU's final energy consumption and for about 35% of all greenhouse gas emissions. The residential sector, with a share of 26% of overall energy consumption, has more potential for improvement than the commercial buildings sector.

Green building techniques save resources. These techniques are especially relevant to reducing the energy consumption used for heating, lighting and cooling. Energy savings for green buildings average 30% over conventional buildings. In addition, green buildings use less water and offer lower maintenance costs.

Several compelling factors drive spread of green buildings. Growing tenant demand due to lower operating costs, higher worker productivity and reputational issues forces the real estate sector to adopt efficient building techniques. Overall, operating costs for leadership in Energy and Environmental Design (LEED) certified buildings are 8-9% lower than for regular buildings. Over the life cycle of a building these savings pay for higher initial costs. Investors also seek more socially conscious investments.

Building codes and regulation becoming stricter. Having recognised the advantages of green buildings, national governments and the EU have mandated higher efficiency standards for new construction and renovations with the EU Energy Performance of Buildings Directive of 2002 (EPBD 2002), EPBD 2010, the follow-up directive, is likely to make "near-zero" energy buildings mandatory by 2021.

Limiting factors remain. The real estate industry lacks a universal definition of what constitutes a green building as well as consistent data sources and metrics on green buildings. These deficits make an assessment of the profitability of green building investments difficult and therefore hold back stronger investor interest. Potential misalignments between landlord costs and tenant benefits also hinder faster adoption of green building standards.

Certification systems send market signals. The number of certification systems has surged in the last decade, although their usage remains limited outside the UK and the US. Nonetheless, they help facilitate the move to greener buildings by enhancing the transparency of building operating costs and other sustainability metrics.

Green buildings will become ubiquitous. Tenant demand and the superior environmental performance of green buildings are major driving factors in making green buildings mainstream. However, stricter government regulation in the EU is likely to be the main reason for green buildings to become the de-facto standard for new and renovated buildings in 10 years. The transformation of the whole building stock will take longer but is also foreseeable.

www.dbresearch.com

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UNEP **Finance Initiative**

Innovative financing for sustainability

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- Prudential plc
- Sustainable Development Capital
- The Sumitomo Trust & Banking Co. Ltd.
- UBS AG
- WestLB AG

Green property emerges as an asset class

- US\$ 22 trillion backing the Principles for Responsible Investment
- Responsible property investment approach
 - 41% of Corporate Real Estate Executives always consider green building certification in administering their portfolio (CoreNet, Jones Lang Lasalle)
 - 46% always consider energy labels



Green property investment logic

If...	Investment Implications	Underlying on responsible property assets
Investors prefer to invest in green buildings	Green properties prove quicker to transact	Green property are more liquid and should, therefore, attract a lower risk premium
Operating costs are significantly reduced	A higher proportion of occupancy cost is allocated to rental	Rental growth should be higher for green buildings
Regulator increase pressure on energy efficiency	Greener assets become more attractive to and retain tenants better	Risk premium is lower than for brown buildings



Proven higher asset value in Switzerland

- Study by

CCRS | Center for Corporate Responsibility
and Sustainability
at the University of Zurich



- The label

MINERGIE®

- Sales in 1998 – 2008 period of 9000 buildings of which 250 with the label

- Asset premium:

+7%



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**Thank you
for your attention**