

DST, Decision Support Tool to facilitate energy-efficient renovation of buildings

Irena Kondratenko

ECN, Energy research Centre of the Netherlands
Energy in the Built Environment Unit
System Integration

2nd Eco-buildings Symposium April 2008, Stuttgart

DST Aim

Guide decision makers through decision making process towards achieving energy efficient and sustainable renovation of dwellings

What is the DST?

Simple instrument, helps select relevant information for making well-balanced decisions

Web based (www.demohouse.net)

DST Focus

Several phases in the process of renovation of houses

Main decisions on the type of renovation take place in the first, Initiative phase

Here decisions are being made in relation to ambitions in energy-efficiency, sustainability, economic feasibility and occupants' participation within the renovation

For Whom?

Focusing on Initiative phase and its main stakeholders

- Housing association managers
- Home owners associations

For Whom?

Contains practical information and links to further more in-depth information of relevance to:

- Architects
- Energy experts
- Building contractors
- Building users

Why? an energy-efficient and sustainable renovation

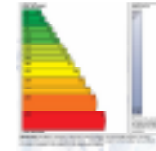
Addressed with quality indicators as benefits associated with this type of renovation:

- Social housing point of view
- Occupants' point of view
- Environmental point of view

Why? an energy-efficient and sustainable renovation

Social housing point of view:

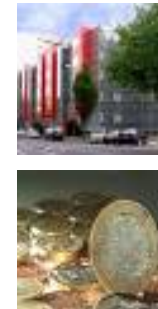
- Property value (financial benefits)
- Lettability (energy + rent)
- Building energy labelling (EPBD)
- Comfort (indoor environment)



Why? an energy-efficient and sustainable renovation

Occupants' point of view:

- Social status (neighbourhood image)
- Lower total living costs



Why? an energy-efficient and sustainable renovation

Environmental point of view:

- Climate protection
- Conservation of resources



How? to do an energy-efficient and sustainable renovation

Addressed through aspects:



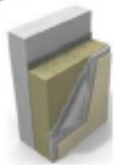
1. Technical



2. Financial



3. Social



1. Technical

- Catalogue of BAT
- Overview of technical measures
- low-cost technical solutions
- IR camera, Blower door test

Awareness tools: Green Build Questionnaire;
Green Diploma;
Energy Signature

- 'Lessons learned' and Monitoring Programme



2. Financial

- Novel financial models:
Energy Service Companies (ESCOs)
- Cost analysis:
Simple pay back time
Energy and CO₂ emission saving



3. Social

- Tenants participation from early stages of renovation
- Benefits of informing users on energy-efficient house use

DST Validation

Test the structure, content, usefulness and user-friendliness of the tool

- Send pilot DST version to network of housing associations decision makers and Demohouse partners
- Use feedback to improve the tool

DST Translation

Translate DST by Demohouse project partners

Translated DST versions access:

- Demohouse website
- National websites of project partners

Intended DST launch 1st July 2008

<http://www.demohouse.net>