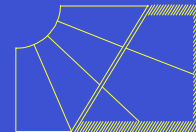




Status Report
SHC / BCS Task 28 / Annex 38:
Sustainable Solar Housing

52nd Meeting of the SHC ExCo
Brussels, B
18-20. November 2002



Swiss Federal Office of Energy
represented by:
R. Hastings, AEU GmbH





1. Overview

Duration: April 2000 – April 2005

Objective: Market penetration of sustainable solar housing

Means:

- Buildings Docu.
- Design Handbook
- Demonstration Projects
- Workshops

Scope:

- Energy
- Ecology
- Economy





2. Progress last six months

Overview:

- Analysis of market successes started
- Regional refer. houses analyzed, Energy targets for strategies set, Modelling in progress.
- Drafts of handbook tech. chapters reviewed.
- Work begun on brochures presenting demo projects
- Monitoring data from built exemplary housing projects analyzed

40 Experts from:

Austria

Australia

Belgium

Canada

Czech Rep.

Finland

Germany

Italy

Japan

Netherlands

New Zealand

Norway

Sweden

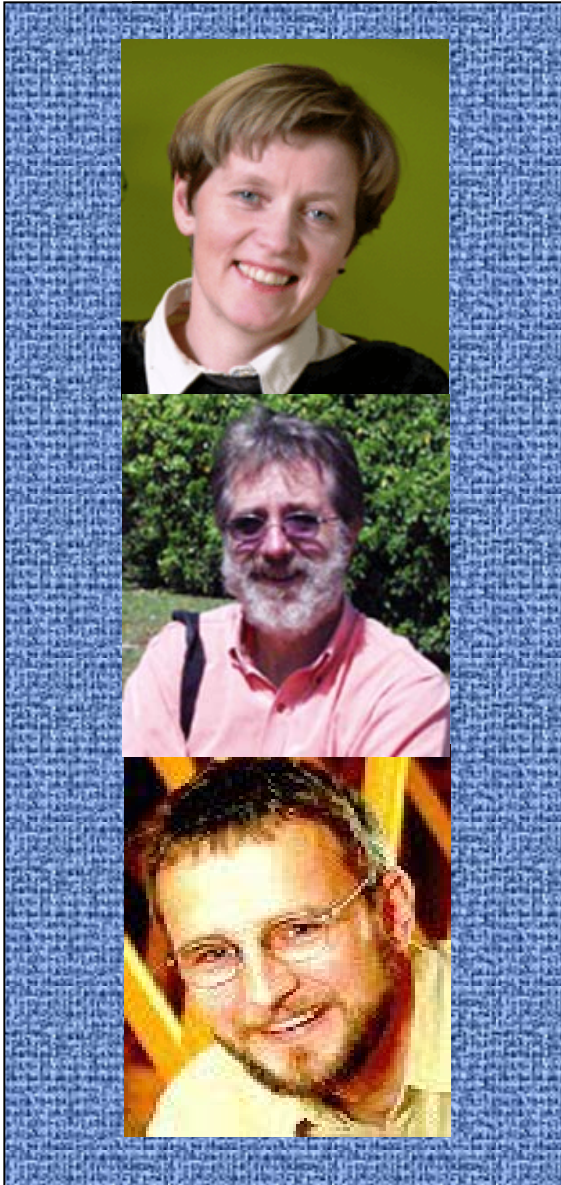
Switzerland

UK / Scotland

6th Expert Meeting

Goteborg, S: 18-20. September 2002





Administrative

Anne Lien (N) now leads Subt. C documentation of demonstration projects with help from K. Voss (Subtask D) monitoring / evaluation.

Richard Hyde (AUS) now leads the Working Group: Hot Climate Sustainable Housing.

Albrecht Stoecklein (NZ) has joined the Task.

Analysis of Marketing Successes:

Goal: identify reoccurring strategies which led to success.

Analysis begun on 17 cases from 13 countries

Output: advice for market penetration.

Subt. A: Market Assessment

Lead: P. Erdtsiek (NL)



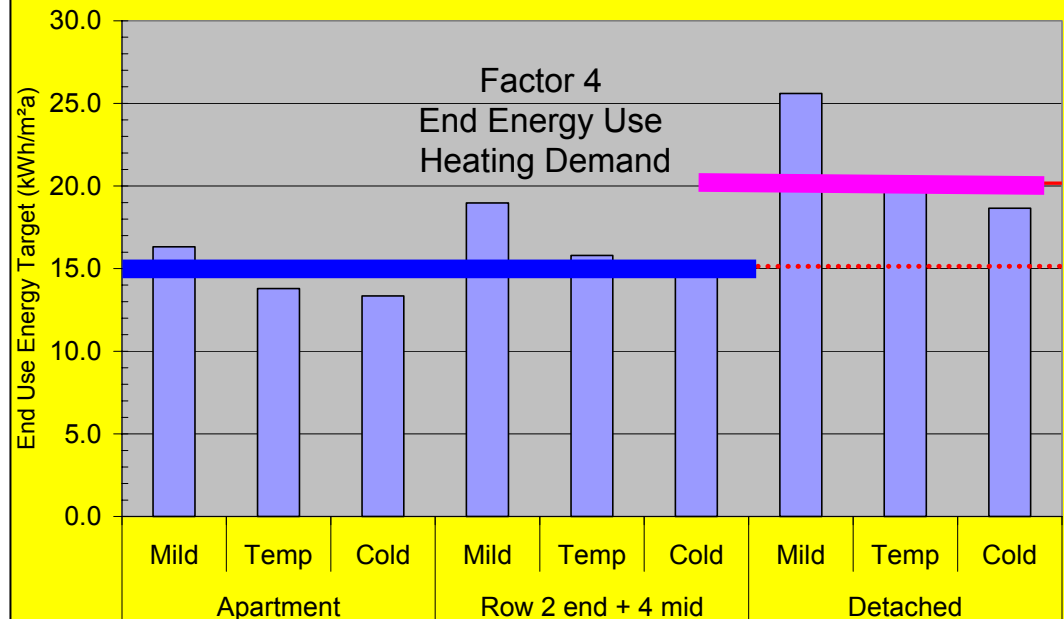


Subtask B: Design Analysis

Leads: M. Wall (S) & R. Hastings (CH)

Heating Targets set for the Strategies

- Detached house: **20 kWh /m²a**
- Apts. & Row houses: **15 kWh/m²a**



Strategies
to meet the
target
heat demand:

I Minimize
Heat Loss

or

II Maximize
Useable
Solar

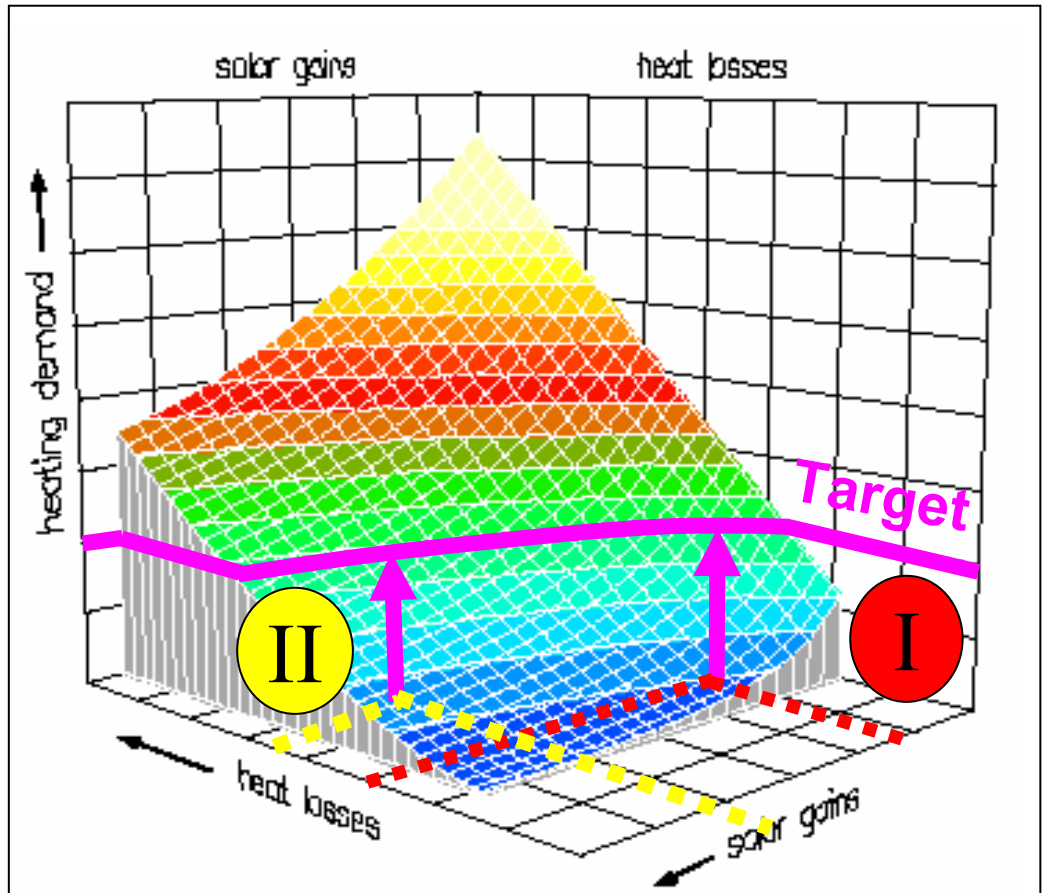
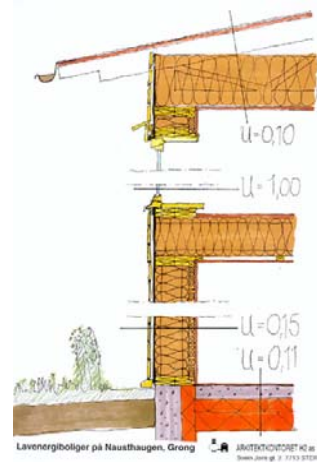


Fig. 4: Simulated correlation among solar gains, building heat losses and auxiliary heat demand. (K.Voss)

Subtask C: Demonstration

Anne Lien (N)

- Work started on brochures presenting demo-projects begun.
- **Cold:** Can, N, S, Fin, UK.
- **Temp.:** A, CH, CR, D, USA
- **Mild:** I, CH
- **Hot:** AUS, BR, J



Demonstration houses in
Grong, Norway





Prototype House: "Sunflower",
Rudolfe, CR
(Factor 2.5)





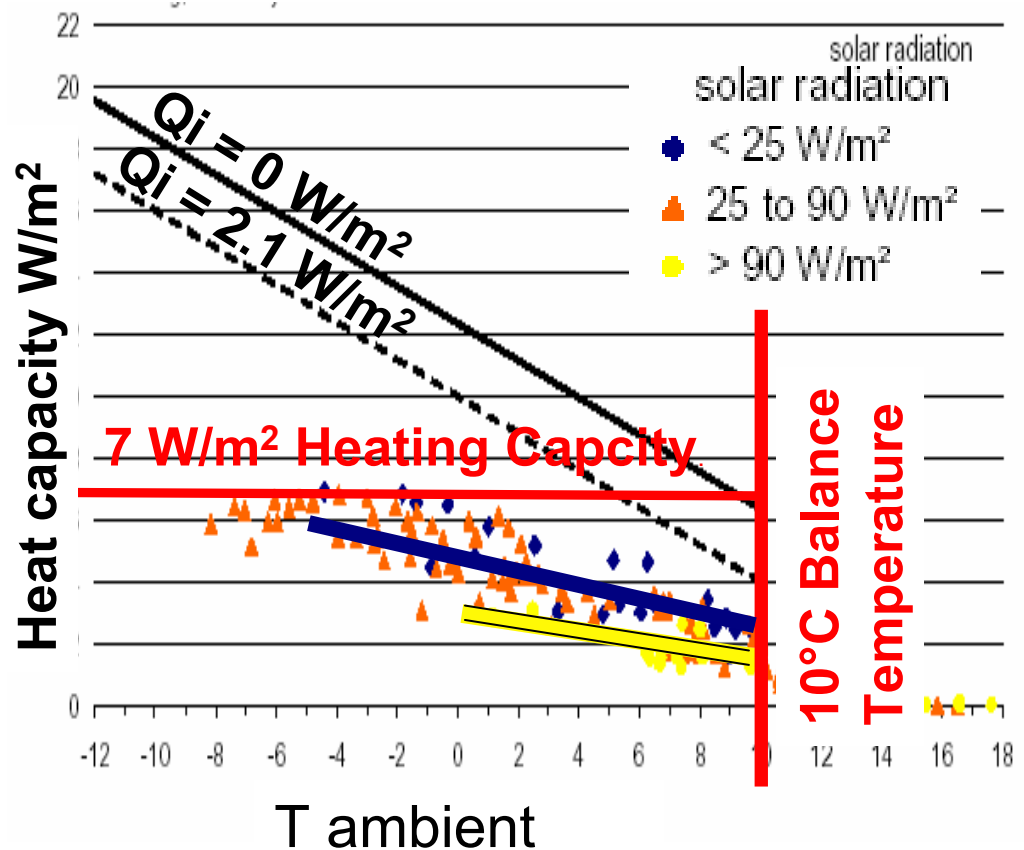
Freiburg Apts.

Strategy I:

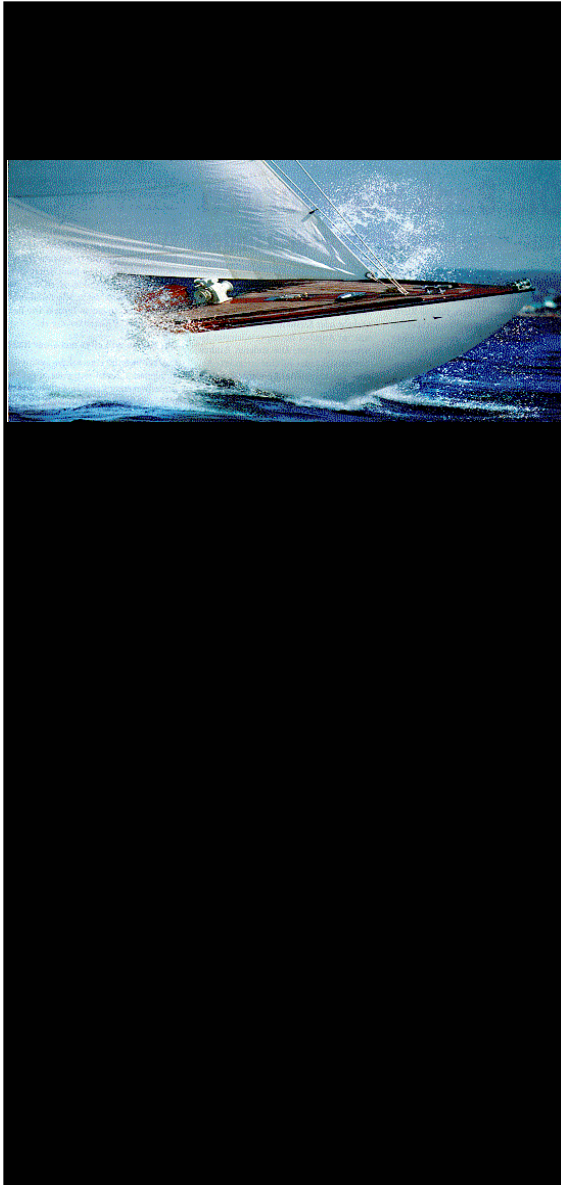
Maximum heat loss reduction,
(passive solar benefit minimal)

Subtask D: Monitoring & Eval.

Lead: K. Voss (D)



(K. Voss)



4. Next six months:

A. Market Analysis:

- Complete analysis & docu. of Marketing successes
A, Aus, Can, CH, CR, D, FIN, I, J, N, NL, NZ, UK

B. Design Analysis

- 2nd drafts: tech. chapters
- Optimize strategies I + II by bld. types & climates
- LCA of projects
- 1st chapters: *Sustainable Housing in Hot Climates*



C. Demonstration:

- 1st brochures of Demo-projects
- Manuscript:
Guidelines for Design Briefs

D. Monitoring & Evaluation

- Complete data sets of built projects
- Complete Working Doc.
- Task results to practice:
1st national language pub.
- Continued analysis of monitored data



Next Task meetings (2003):

Internal workshops:

- 26-27. January
Subt. B Analyses Group (Siegen)
- 28. January
LCA Working Group (Cologne)

Expert Meeting

- 07-09. April (Prague)
- 04-07. November OK?
(N.E. Australia)

ExCo in Wellington

- 17-21. November



5. Issues for the ExCo

- **SHC T28/38 Home Page:**
No funding, No expert, No work.
- **Building Documentation Sets:**
Need ExCo push to complete!!!
- **Handbook:**
Principles/Strategies/Technologies
Main Task publication (350 p)
- **Delayed contributions:**
Push for timely delivery of work!
- **Joint Tasks:**
An illusion with potential conflicts:
 - Dual chain of command
 - Poor communication

