

An aerial photograph of a residential development. In the foreground, several multi-story apartment buildings are visible, with solar panels installed on their flat roofs. The buildings have a mix of white and orange-brown facades. Behind the buildings, there is a green fence and a grassy area. In the background, there is a large, open field with some trees and a small house on the right side. The overall scene is bright and sunny.

Energy Efficiency and Housing

**Sorcha Edwards – CECODHAS
UNECE – Committee on Housing and
Land Management**

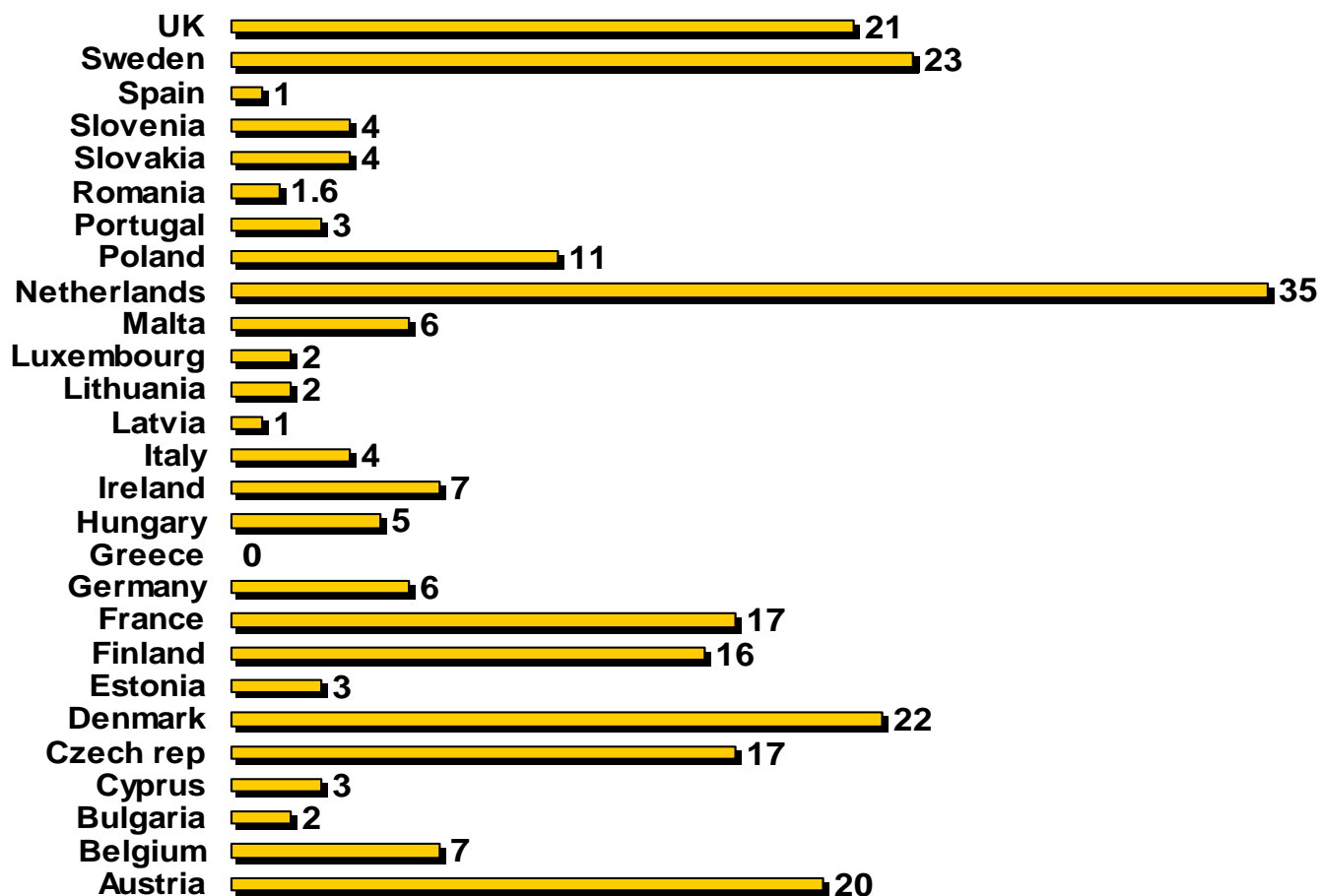
Who are we?

CECODHAS is the European Social Housing network of social housing federations. Together the 46 members in 19 EU member States manage 22 millions dwellings.

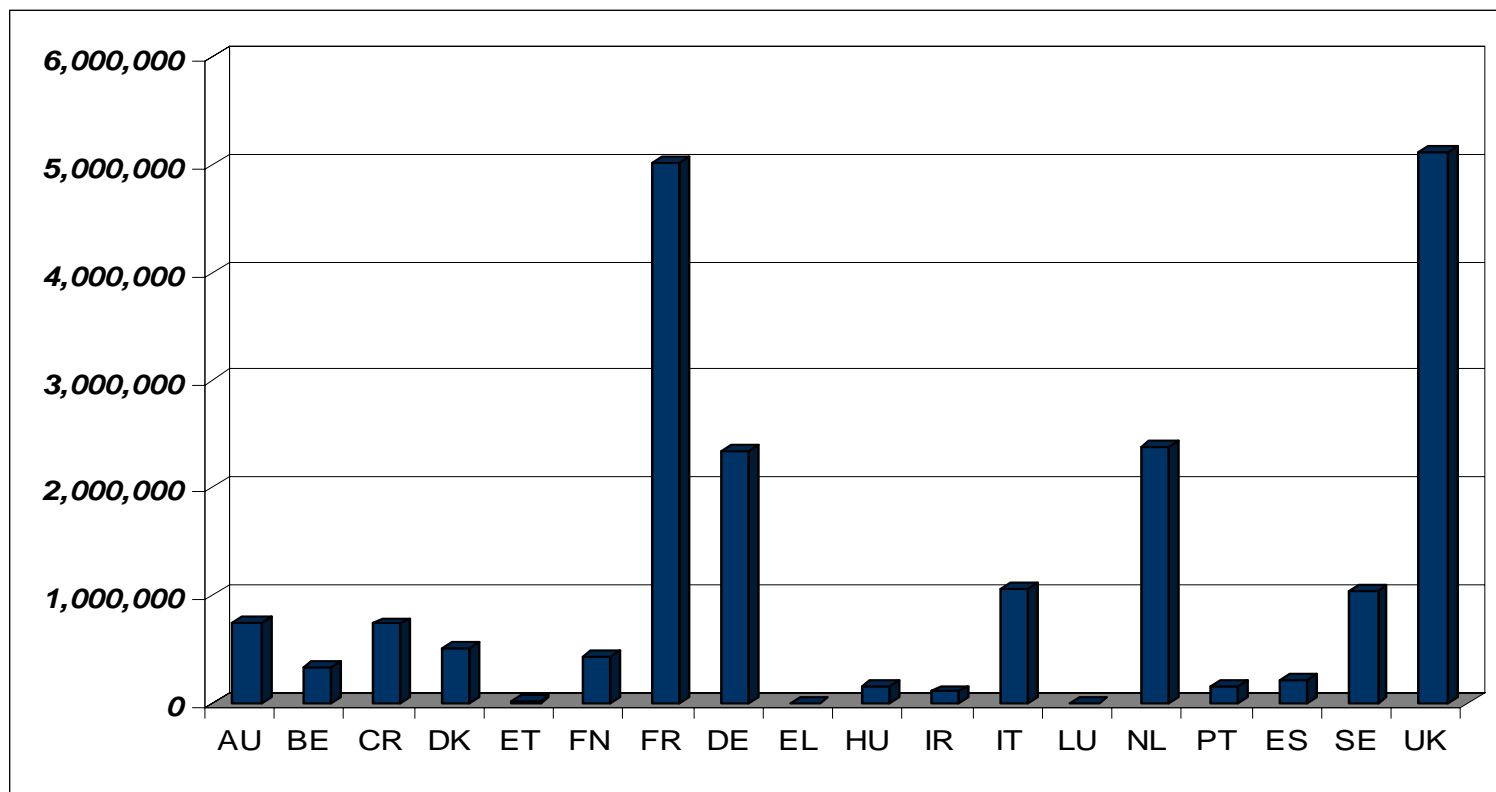
What is European Social Housing?

- Diverse sector with wide variations between systems and providers throughout the EU
- Main actors: Municipal Housing Companies, Voluntary Housing associations and Housing Cooperatives - 39,000 in total
- Common denominator: non-for-profit
- Some figures to illustrate diversity:

% of Social Housing of total housing stock by Country



Number of Social Dwellings by Country



New Common Denominator

- Global Warming & Climate Change
- Energy Prices
- Fuel Poverty
- Quest for energy efficiency
- Impact of EU energy related targets and legislation

EU Energy Targets

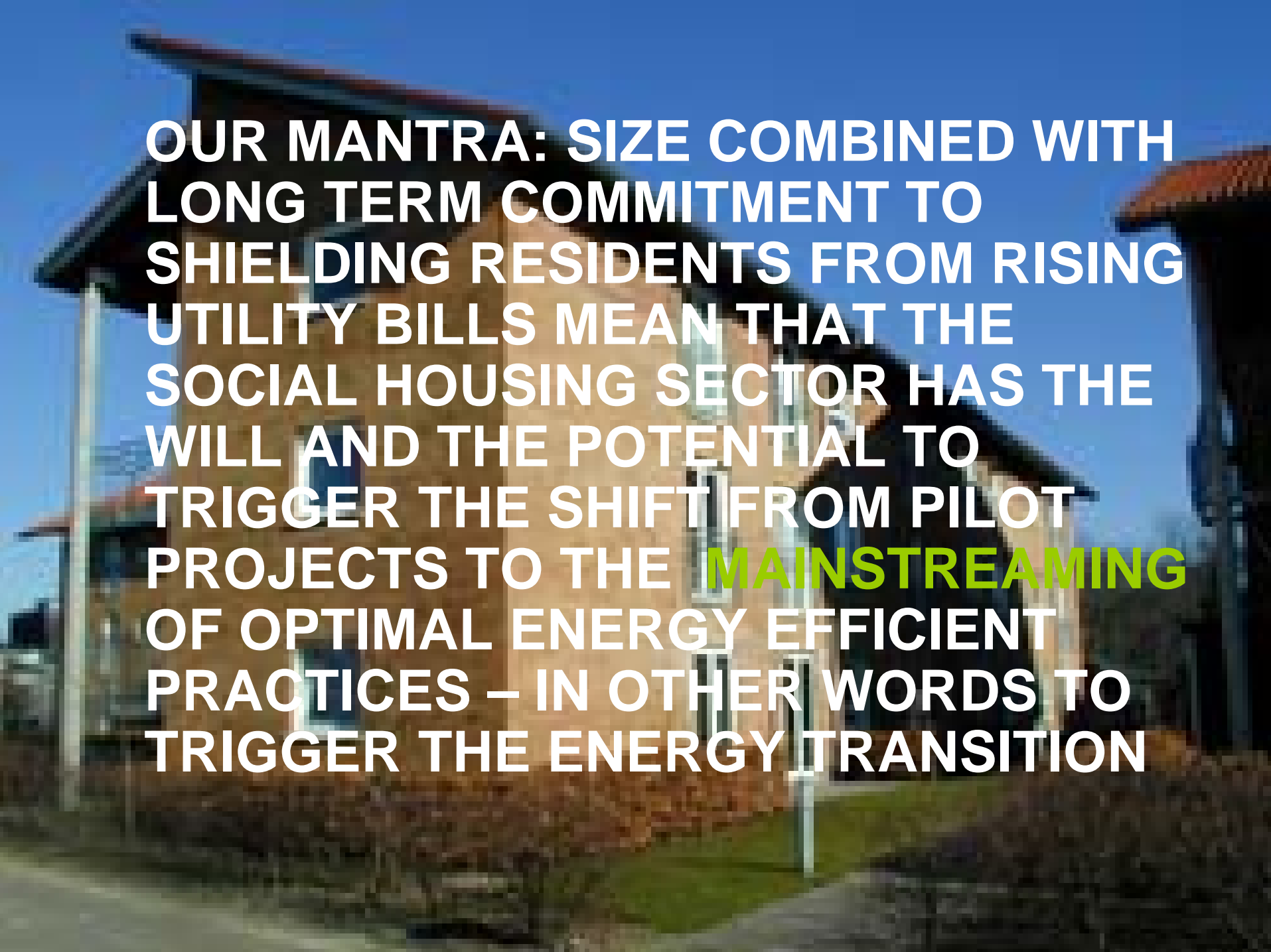
- 20% reduction of greenhouse gases by 2020
- 20% share of renewable energy in final energy consumption by 2020
- 20% saving in primary energy consumption by 2020
- 10% share of bio-fuels/renewables energy in transport fuels by 2020

Recognition of potential of residential sector

- >> **International Energy Agency** Recommendations to 2007 G8 Heiligendam Summit: “Worldwide, existing buildings represent a major potential for energy savings: through renovation, the total **energy consumption of existing buildings can be halved over 30 years.** Despite the technical and commercial feasibility of improving an existing buildings’ energy efficiency, **many market barriers hamper its realization.** “
- >> **Intergovernmental Panel on Climate Change** 2007 Mitigation of Climate Change Report: ..“there is a **global potential to reduce approximately 29%** of the projected baseline emissions by 2020 cost-effectively in the **residential and commercial sectors**, the highest among all sectors studied in this report.”
- >> Communication from the European Commission ‘Action Plan for Energy Efficiency’: Realising the Potential: “..**the largest cost-effective savings potential lies in the residential (households) and commercial buildings sector** ... where the **full potential is now estimated to be around 27% and 30%** of energy use respectively. In residential buildings, retrofitted wall and roof insulation offer the greatest opportunities..”

Recognition of potential of residential sector II

- >>New MGI report published : ***Energy-efficiency improvements in the residential buildings sector provide the greatest potential for slashing demand***, notably through more efficient appliances and heating and cooling systems, the report says. Next in line are the commercial and transportation sectors, followed by heavy industry and refineries.
- >>Improvements in these sectors could result in a ***reduction of greenhouse gas emissions (GHGs) in the order of one billion tonnes by 2020, equivalent to the GHG emissions of the UK and France*** put together, according to the report.



**OUR MANTRA: SIZE COMBINED WITH
LONG TERM COMMITMENT TO
SHIELDING RESIDENTS FROM RISING
UTILITY BILLS MEAN THAT THE
SOCIAL HOUSING SECTOR HAS THE
WILL AND THE POTENTIAL TO
TRIGGER THE SHIFT FROM PILOT
PROJECTS TO THE **MAINSTREAMING**
OF OPTIMAL ENERGY EFFICIENT
PRACTICES – IN OTHER WORDS TO
TRIGGER THE ENERGY TRANSITION**

What is the EU doing to provide support?

- Incentive programmes – Intelligent Energy , Research Framework etc
- Directive on energy performance of buildings – currently being revised
- Directive on energy end-use efficiency and energy services - NEEAP
- Directive on the promotion of cogeneration
- Directive for the taxation of energy products and electricity
- Directive on energy efficiency requirements for boilers, refrigerators and ballasts for fluorescent lighting
- Directives for labelling of electric ovens, air-conditioners and refrigerators and other appliances
- Regulation of Energy Star labelling for office equipment
- Directive on eco-design requirements for energy using products

What is CECODHAS pushing for ?

- Structural Funding (ERDF) to support energy efficiency and renewable in housing
- Reduced/0% VAT on related products and services
- Contribution from Emissions Trading Schemes
- Greening of housing finance systems- global living costs
- Adapted tools from European Investment Bank
- Investment in Training - Armies of qualified experts and installers - not armies of certifiers!
- Development in Market for energy efficiency services and products
- The right to access affordable energy and the right to independent customised energy advice (Written Declaration on Fuel Poverty & 3rd package)

Partnership and Exchange

- Exchange Exchange Exchange
- Energy Experts Network
- Accessing and providing information on EU funding programmes and connecting partners

Some Front runners: Tenant Participation in Finland

Awareness raising & tenant involvement: VVO (39,000 units Finland) runs an energy campaign lasting one week in October and a campaign to raise awareness of tenants. All tenants can become 'energy experts' whose task it is to find weaknesses in the energy efficiency of the apartment block. Each year a energy efficiency competition is held between all houses with a cash prize to improve communal facilities.

Advanced Energy Refurbishment in Germany

- 1990 to 2012 target was 21% reduction in CO₂ emissions. This was achieved in 2005. Currently 27% of stock in Germany has been refurbished with 24% partially refurbished.
- 33,000 m² solar power plants – growth between 2001 and 2005 of 190%

Energy Brokering in Holland

- Woonenergie is a grouping of housing associations which together purchase energy in bulk thereby ensuring a lower price for tenants

Passive Housing in Austria

- Currently undertaking the largest passive housing project in the EU in Lodenaareal. 354 flats with a reduced energy consumption of 80% - 15kWh/m²
- Groundwater heat to pre-warm air, 1000m² large solar processor, pellets system for underfloor heating, 2-supply pipe system, thermal insulation 26 cm and 30 cm for roof
- Passive house window with U value of .8, semi central ventilation systems, 8,200 m² green area. Construction cost € 46,000

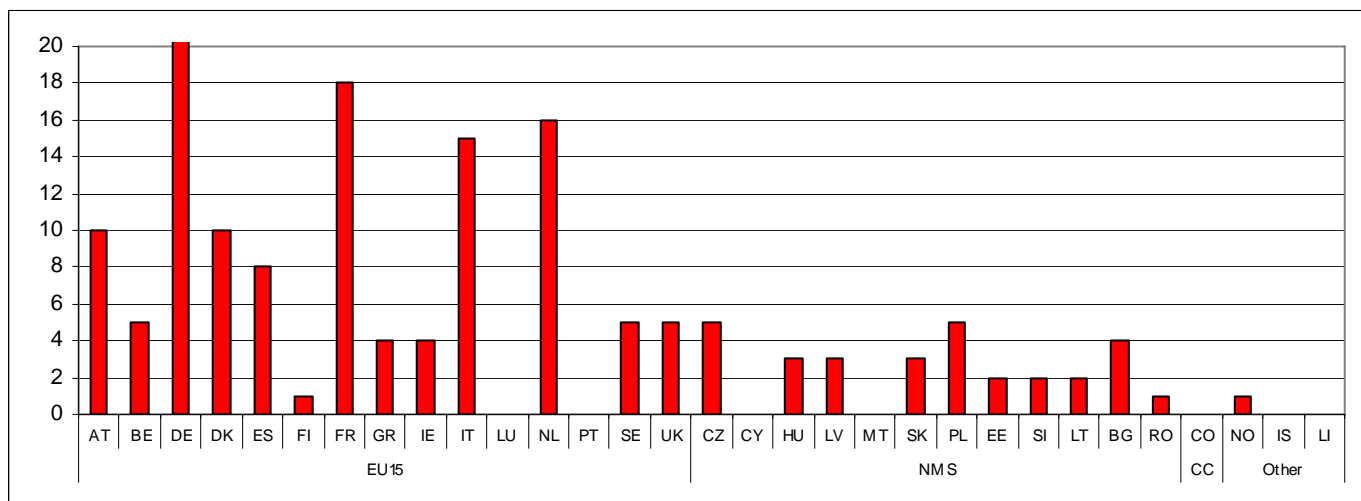
Programmes and Incentives

- Intelligent Energy Programme – next call Early 2009 – ALTENER, SAVE, STEER
- Life programme
- FP7 – theme 5 – priority energy
- CONCERTO
- Information on calls for projects and info dates: managenergy.net

Partnerships through SAVE projects – A to Z on energy management

- Education, training and local forums for social housing stakeholder
(NIRSEPES, EI-Education, ROSH)
- Awareness raising mainly towards tenants
(ISEES, SHARE, Save@Work4Homes)
- Improvement of asset management tools
(Epi-SoHo, RESHAPE, ESAM, Factor 4)
- Retrofitting solutions
(E-Retrofit- KIT, TREES, AVASH, SurRE-FIT, SQUARE)
- Legal and Institutional Changes
(TACKOBST, EPEE)
- Tailored financing schemes
(InoFin, ECOLISH, FinSH)

Country Involvement





Social Housing Action to Reduce Energy consumption SHARE

Raising awareness and stimulating increased activity in sustainable energy retrofitting of social housing through:

- **multi-sectoral social housing energy forums**
- **training**
- **awareness and advice**

SHARE objectives:

- raising awareness of benefits of RES & RUE
- increasing level of RES & RUE in retrofit
- achieving behavioural change
- maximising financial & technical resources available
- promoting good practice
- enabling exchange of knowledge & experience

SHARE partners:

Severn Wye Energy Agency, UK
Tipperary Energy Agency, Ireland
Energikontor Sydost, Sweden
Sofia Energy Centre, Bulgaria
B&SU, Germany
BCEI ZRMK, Slovenia
EE74, France
Regional Energy Centres, Estonia

■ Objectives:

- ▶ **Development of methods for the definition and implementation of long-term energy-retrofitting strategies for SHO's**
- ▶ **Development of information systems supporting the methods**



- **Coordinator: DELPHIS (France)**
- **14 partners: 6 social housing operators (SHO's), 3 associations or federations of SHO's, 5 scientific or consulting companies**
- **6 countries: Italy, Germany, Czech Republic, Estonia, Austria, France**

1 January 2006 – 31 December 2008 21



Energy Intelligent Education for Retrofitting of Social Houses

Objectives:

- Development of EI-Education programme for social housing companies and guidebook for social housing companies
- Awareness raising seminar - for information on and preparation of the execution of the EI-Education programme under the auspices of CECODHAS, the European Liaison Committee for Social Housing and in cooperation with ECTP, the European Construction Technology Platform
- Executing the EI-Education programme by organizing national training courses for social housing companies in 6-10 countries
- Establishing the EI-Education programme as part of existing training activities for social housing companies
- **Participating countries: AT, BG, DK NL, SI, coordinated by Aarhus School of Architecture (DK)**



TACKLING OBSTACLES IN SOCIAL HOUSING

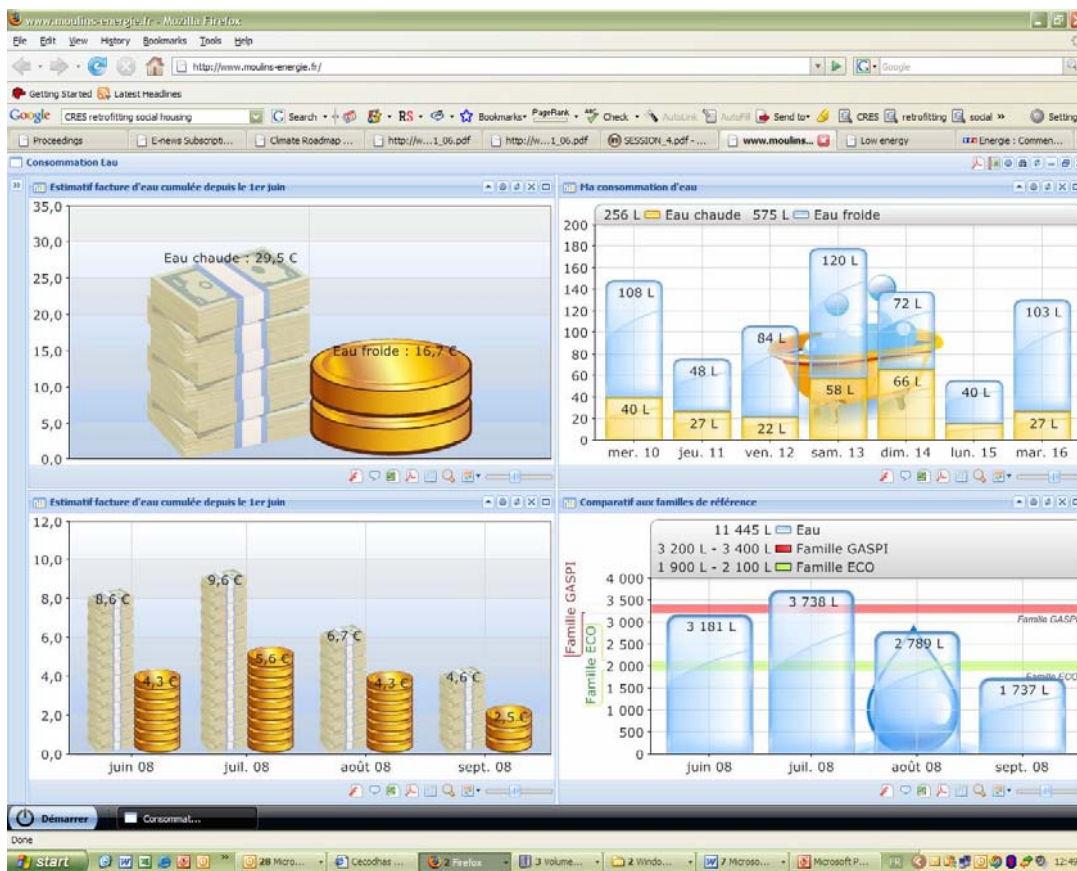
- **Methodologies & concrete tools** for **Professional Unions** of social housing operators to be used and valorised with the stakeholders to **remove the different obstacles** still met by their members in their **energy efficiency strategy**

Obstacles:

1. **Institutional and legal obstacles** (especially: those attached with the regulation of the rent)
2. **Technical and economical obstacles**
→ How to initiate an economic framework which will allow innovative technical solutions?
3. **Cultural and social obstacles**
How to implement an efficient co-operation (win-win agreements) with occupiers and the main stakeholders (social institutions and public authorities)?

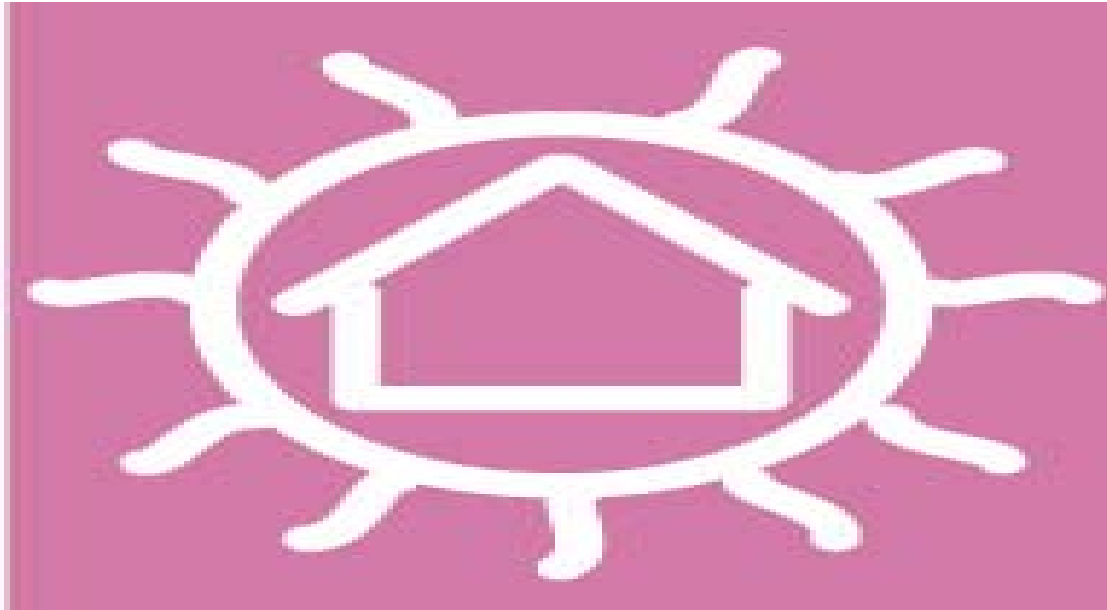
8 partners from **France, Italy, Germany** and **Bulgaria**, mostly **Professional Unions** and coordinated by **DELPHIS**

Making 9 o'clock news on French TV: On line energy management for social housing tenants – Save@work for homes



- CECODHAS ROLE IS TO CAPITALISE ON THE OUTPUTS OF THESE SAVE PROJECTS SO THAT THEY ARE RELEVANT AND ACCESSIBLE FOR A MAXIMUM NUMBER OF OUR 39, 000 AFFILIATES
- EU SHOULD SUPPORT THESE OBJECTIVES.....

POWER HOUSE EUROPE



WHATS IN A NAME? >POWER HOUSE EUROPE – THE BIG GREEN HOUSING AND ENERGY EXCHANGE: POWER HOUSE BECAUSE THE SOCIAL HOUSING SECTOR IS THE DRIVING FORCE BEHIND THE ENERGY TRANSITION IN THE RESIDENTIAL SECTOR..BUT ALSO POWER HOUSE BECAUSE OUR SECTOR HAS A VISION AND IN THAT VISION HOUSING WILL BE MORE THAN ENERGY NEUTRAL BUT WILL BE PRODUCING ENERGY FOR OWN CONSUMPTION WITH A SURPLUS TO BE FED BACK TO THE GRID....PROVIDING WE HAVE THE RIGHT FINANCIAL AND REGULATORY FRAMEWORK

Forthcoming Actions and Events

- Kick-off POWER HOUSE EUROPE 1st October
- Energy, Finance and Environment, Housing (Education) Ministers Meeting French Presidency of the EU
- European Sustainable Energy Week 09
- Sustainable Energy Week Campaign Awards – deadline end October
- Today at the European Parliament conference on European Sustainable Housing Policy
- Support for Written Declaration on Fuel Poverty

Thank you for your attention 😊

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