

# ICT-2008 workshop

## ICT for Energy Efficiency through Home Automation

A cluster of “home automation” projects  
The user driven aspects

Andy Drysdale  
Head of Innovation  
The Alexandra Institute  
[andy.drysdale@alexandra.dk](mailto:andy.drysdale@alexandra.dk)  
[www.alexandra.dk](http://www.alexandra.dk)



# What and who is the Alexandra Institute?

- Integral part of the IT-city "Katrinebjerg" + office in Copenhagen.
- An applied research (and Approved Technological Service) Institute
- A private, not-for-profit, company
- Bridge-builder and matchmaker between research environments and enterprises (private and public domain)
- Develop innovative ICT-based products and services. Projects and commercial services
- Focus on the next wave of IT "Pervasive computing"
- Apply user driven concepts and processes
- Experiencing rapid growth (5, 18, 75 employees in 1999, 2005, 2008)
- Highly qualified and multidisciplinary staff. > 20% have a PhD

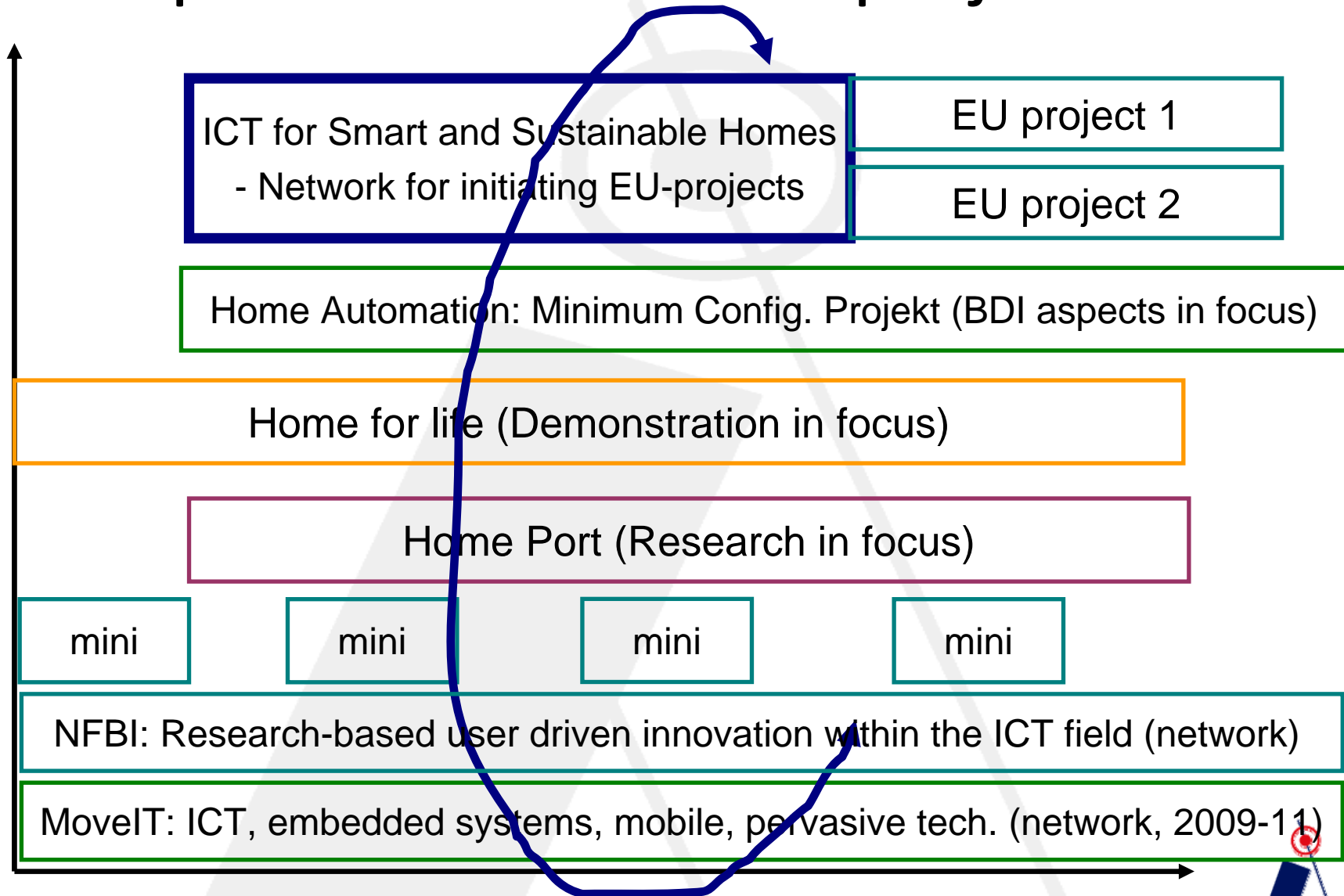
# Spotlight on Denmark in 2009



- COP 15 UN summit on climate change in Copenhagen 30.11 – 11.12 2009 .....
- ..... but also activities in cities throughout Denmark
- Noticeable increase in national interests – press, political and at the citizen level in energy-saving, CO<sub>2</sub>-reducing activities
- Perfect timing with regard to innovative national and EU/international energy-saving initiatives



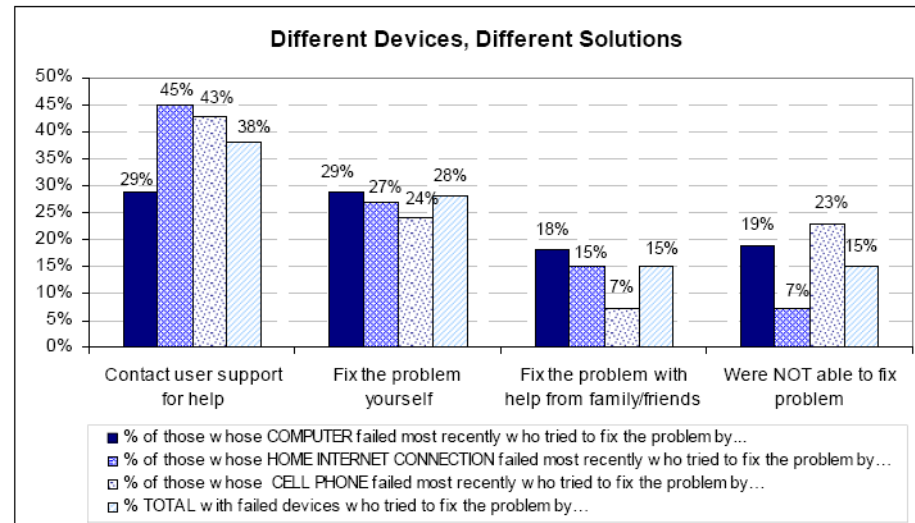
# One particular cluster of projects



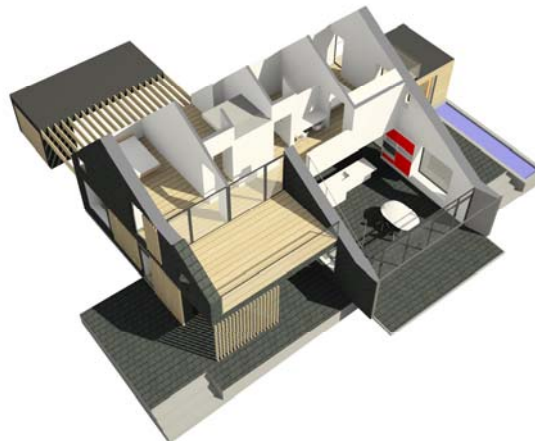
PEW INTERNET PROJECT DATA MEMO

[http://www.pewinternet.org/pdfs/PIP\\_Tech\\_Failure.pdf](http://www.pewinternet.org/pdfs/PIP_Tech_Failure.pdf)

Modern information and communication technologies open doors to a wealth of information. But **many users find it difficult to set up these devices** and frustrating when they break. According to a recent survey by the Pew Research Center's Internet & American Life Project, nearly half (**48%**) of adults who use the internet or have a cell phone **say they usually need someone else to set up a new device up for them or show them how to use it.**

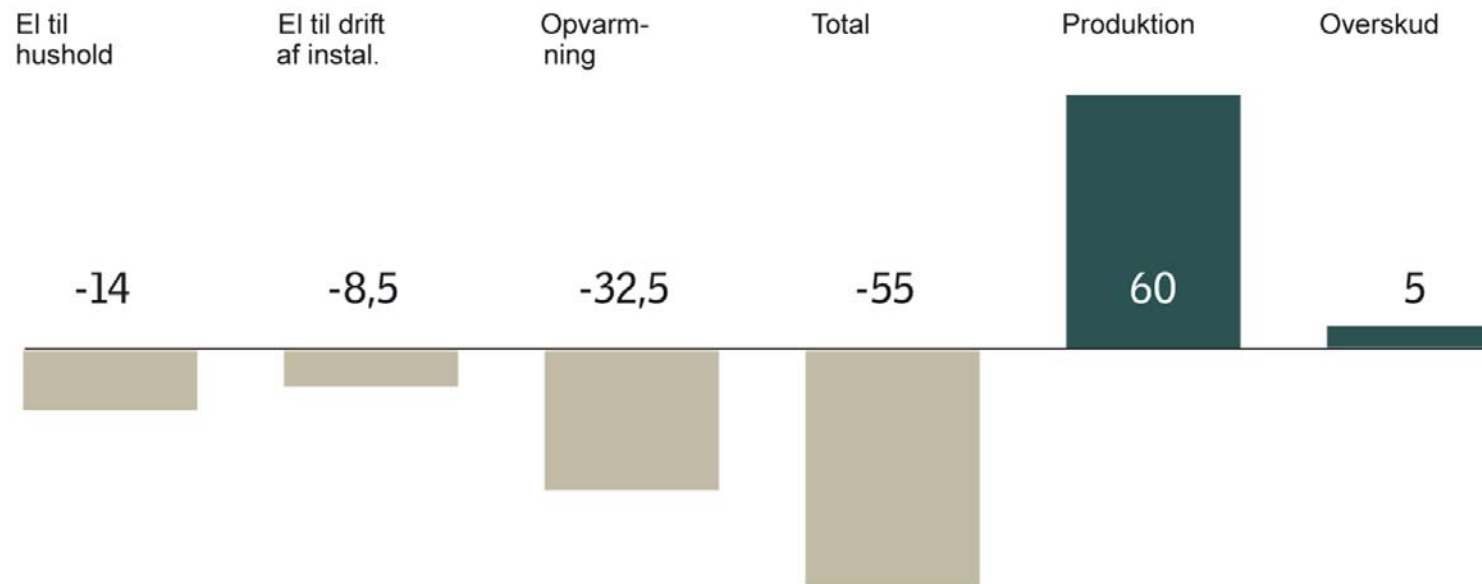


# Example: "Home for life" (a sustainable building)



# “Home for life” – an energy surplus

Energibehov og produktion i kWh/m<sup>2</sup>/år



An energy **surplus** of 5 kWh/m<sup>2</sup>/year

**Users involved from the start**



# This initiative: The short version

## ICT for Smart and Sustainable Homes

- Network for initiating EU-projects
- Supported and partly funded by the Danish Strategic Research Council
- Focus on energy and comfort in private and commercial buildings
- Goal is to make it easier for end users to configure electronic control units
- Will use input from users – to ensure useable results and solutions
- New and existing products will offer users "intelligent" solutions and services
- Energy savings, security, comfort and indoor environment parameters are features that will contribute to better living conditions and user experience
- Wireless technology – easy and comfortable. "One remote for everything", with minimum configuration hassles/bother
- Schedule: Start mid-2008 and finish 8 (max. 24) months later



# This initiative: Success criteria

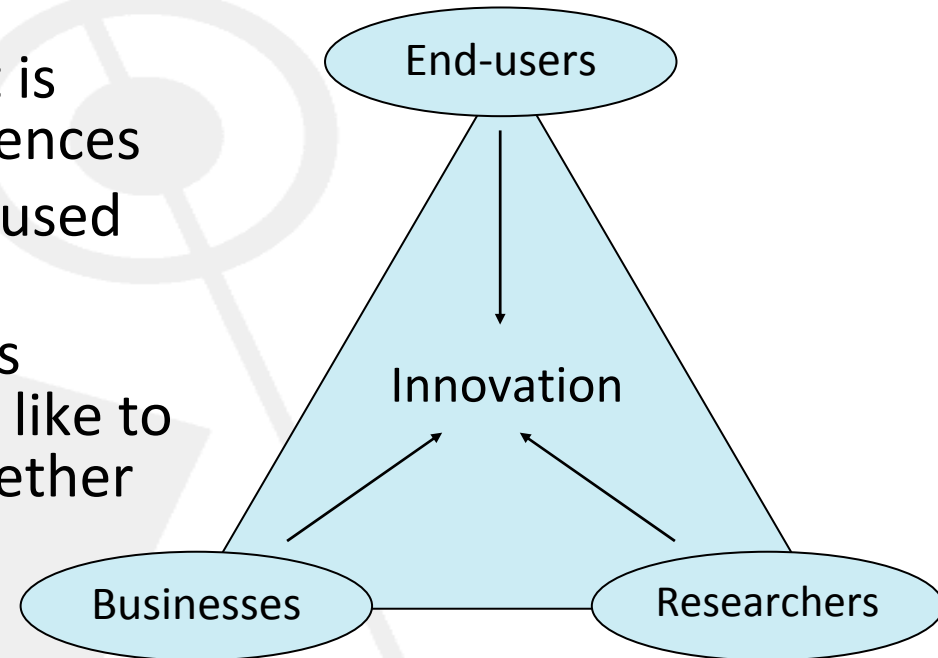
This workshop (the starting point!)

- Identifying relevant "challenge(s)" in EU's FP7 programme "ICT for Energy Efficiency" (ICT for Mobility, Environmental Sustainability and Energy Efficiency)
- Establishing a network with common project goals
- Network should have 25-30 partners, 10-15 Danish and 10-15 others
- Identifying players and roles
- Participation of one (or more) Danish partners in one (or more) EU-proposals
- Secretariat based in Denmark with a consortium consisting of representatives from Aalborg University, The Engineering College in Aarhus and The Alexandra Institute



# Cooperation is the key

- For any project to succeed it is important to **match** competences
- This simple model has been used successfully many times
- We cannot/will not drive this development, but we would like to be part of it – if possible together with (some of) you.



Or in other words:

*If you have an apple and I have an apple and we meet to exchange apples then you and I will still each have one apple. But if you have a good idea and I have a good idea and we meet to exchange these good ideas, then afterwards each of us will have two good ideas.*

*George Bernard Shaw 1856-1950*




# Follow up

- Meeting January 2009 – time and place to be decided
  - Keep updated at [www.alexandra.dk/iss](http://www.alexandra.dk/iss)
- Meeting in Denmark in connection with "Beyond Kyoto" conference in Aarhus 5-7 March 2009
- [www.klima.au.dk/dk/forside/konferencebeyondkyotoconferen/](http://www.klima.au.dk/dk/forside/konferencebeyondkyotoconferen/)

**Klima.au.dk**

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LAW & POLICY ECOSYSTEMS PRODUCTION TECHNOLOGY CITIZENS & SOCIETY

  
**Science meets Industry, Policy and Public**  
5 - 7 March 2009, Aarhus, Denmark

OPENING ADDRESS BY GRO HARLEM BRUNDTLAND



*"Beyond Kyoto – the need for cooperation and participation by science, business and civic society"*

