



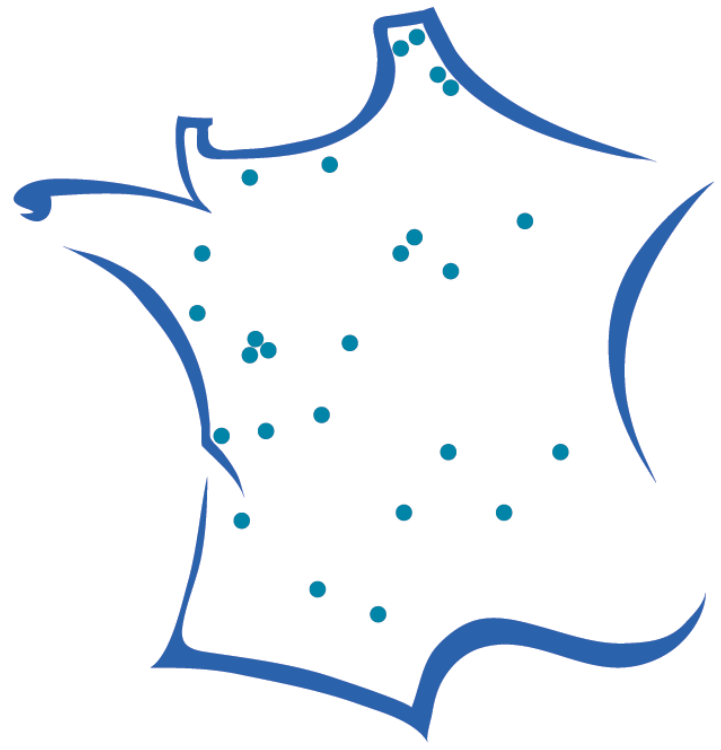
Balanced European Conservation Approach

ICT services for resource saving in
social housing

www.beca-project.eu
Beca@empirica.com

E3SoHo Final Workshop
Bruxelles
18 September 2013

DELPHIS
HABITAT & INNOVATION



Responsible Housing



COST OPTIMUM AND STANDARD SOLUTIONS
FOR MAINTENANCE AND MANAGEMENT
OF THE SOCIAL HOUSING STOCK



- **BECA** helps Europe meet emission targets by achieving a significant reduction of energy consumption in European social housing **21 Million dwellings**.
- Integration of **renewable energy sources**.
- Balance is achieved by addressing **energy** and **water** consumption, and **transfer** the experience **from Western Europe** most advanced organizations **to East Europe**.

- ❑ Started in **January 2011**
- ❑ Duration: **3** years
- ❑ **19** partners
- ❑ **7** pilot sites, **7** European countries
- ❑ Project's total budget: **5.55m€**
- ❑ **50%** co-financed by the EU

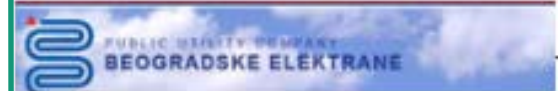
Research Institutes



Housing companies



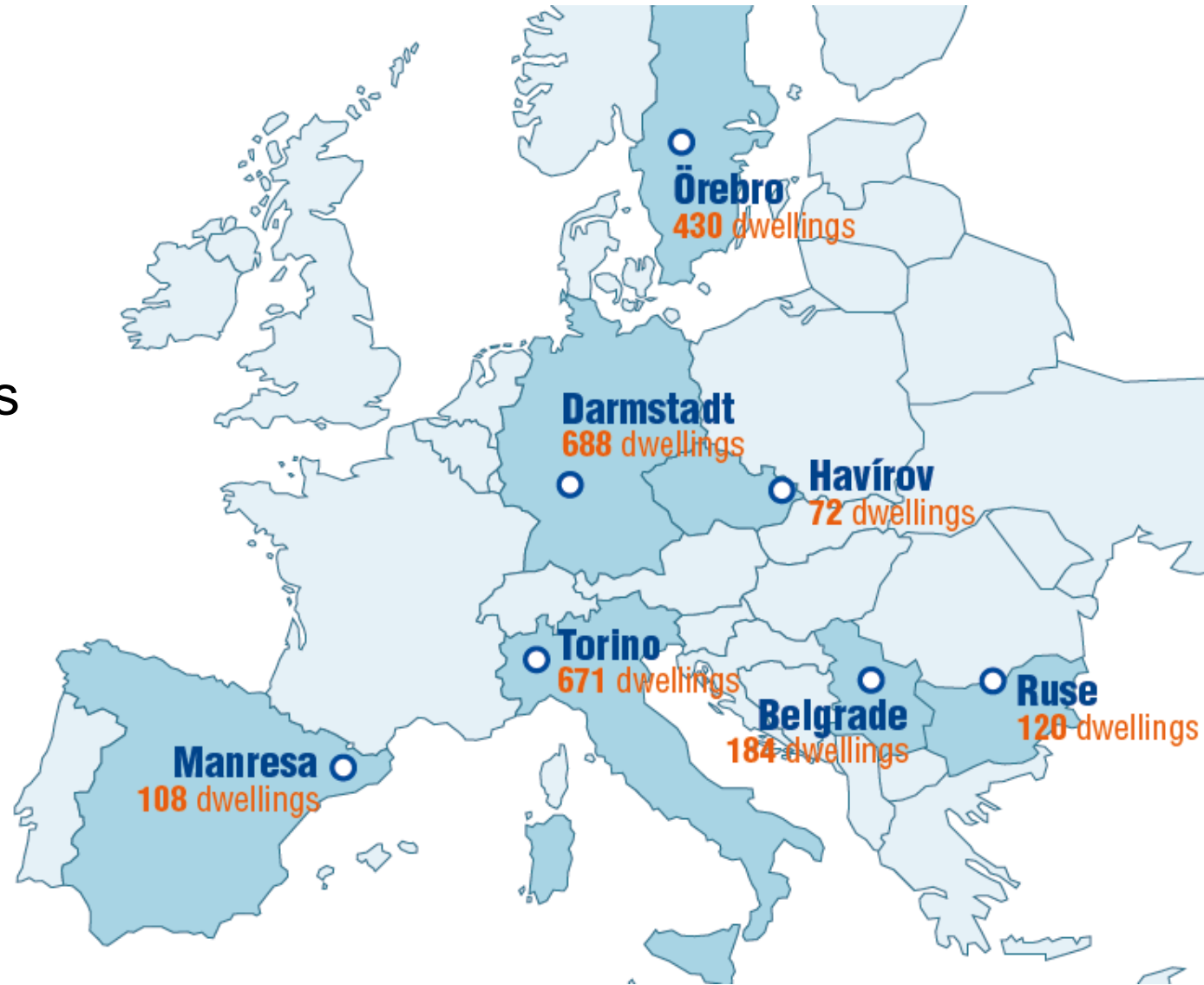
Service providers



7 Pilot sites :

> 2200 dwellings

> 5000 tenants



Pilot sites all over Europe



*Changing conventional
Services with ICT*



*Knowledge transfer
between partners*

*Building on existing
services*

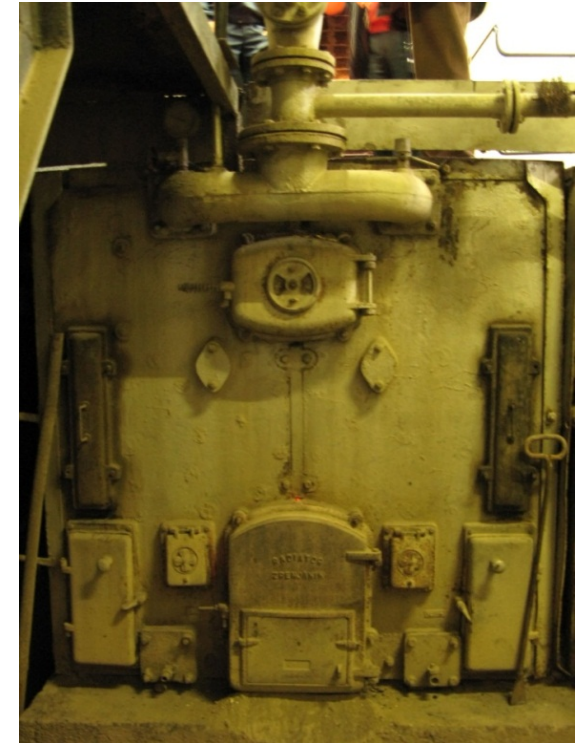
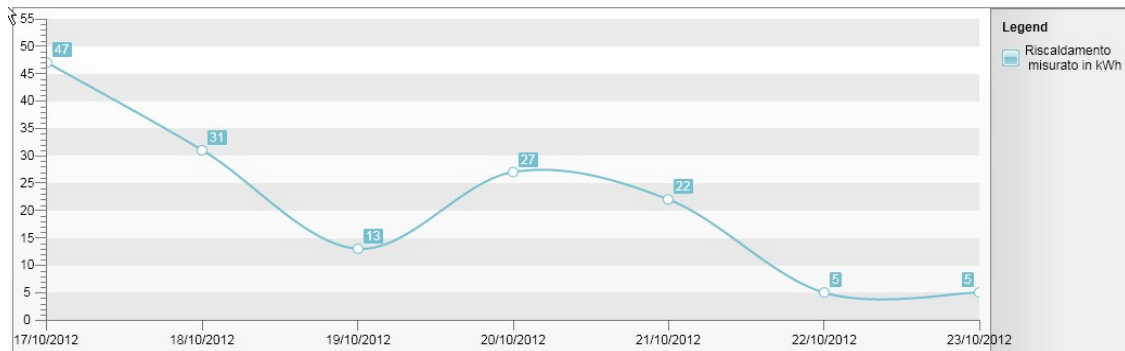
RUAS : Resource Use Awareness Services

- Web Service
- Human coaching
- Paper based information



RMS : Resource Management Services

- Adjustment of energy consumption / production
- Integrating renewable energy
- Web Service



Different uses of the application



Application features



Application

Database: XX
Scalability: Yes/No
Security: XX

Data server



Application server

Web Server: Type
Technology: XX
Security: XX

Data & Server

Transport protocol: XXX
Security protocol: XXX
Communication protocol: XXX

Connectivity

Equipment name

Protocol XXX

Protocol XXX

Protocol XXX

Equipment name

Equipment name

Equipment name

Protocol Xx

Protocol Xx

Protocol Xx

Protocol Xx

Protocol Xx

Protocol Xx

Protocol Xx

Data Collecting

Meter name

Meter name

Meter name

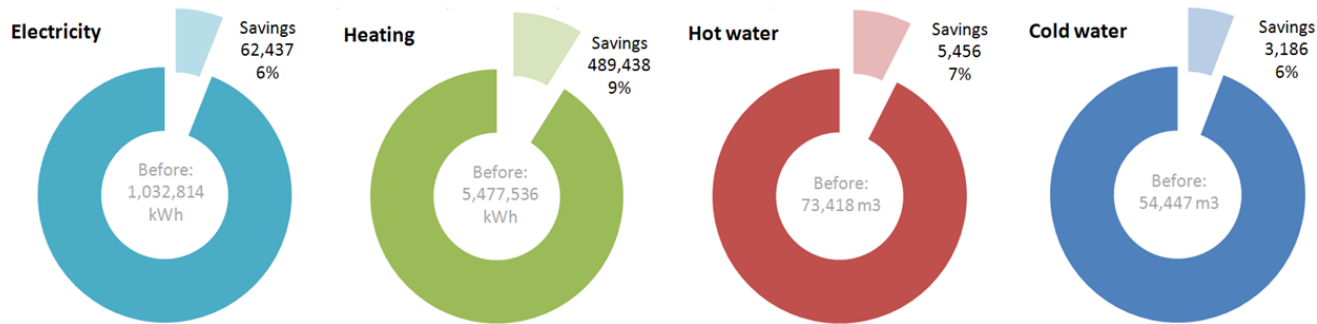
Meter name

Meter name

Meter name

Meter name

- Intervention year not yet finalised (december 2013)
 - Mostly baseline design, but also control groups
- Final survey starting now
- Expected : Average results from eSESH:



- Individual sites achieved up to 12% electricity, 32% for heating and 24% for water

What can be done to maximize **RUAS** savings?

- Global coaching (human coaching, paper reports, meetings...) is mandatory to reach the savings.
 - ➔ **Smart Metering is a tool, not a solution.**
- Smart metering might not always cause general energy savings for an entire building, but it detects heavy consumers
 - ➔ **Heavy consumers are your primary targets**

Your water consumption

Lertagsgatan 63 - 203



Örebro (Sweden)



начало за проекта съвети помощ изход

контролен панел електричество вода препоръки администрация
контролен панел

ТЕКУЩО ПОТРЕБЛЕНИЕ НА ЕЛЕКТРОЕНЕРГИЯ
4,7 kwh
За дата: 10/08/2011г.
Тарифа: Дневна
Пиково потребление: 8,1 kWh
За днес (от 00:00ч.): 21,3 kWh.
Сума (от 00:00ч.): 8,24 лв.
Прогнозна сума за текущия месец: 30,46 лв.

ТЕКУЩО ПОТРЕБЛЕНИЕ НА ВОДА
2,3 куб.м.
За дата: 10/08/2011г.
Тарифа: ---
Пиково потребление: 8,1 куб.м.
За днес (от 00:00ч.): 21,3 куб.м.
Сума (от 00:00ч.): 8,24 лв.
Прогнозна сума за текущия месец: 10,15 лв.

НАСТРОЙКИ НА ДОМАКИНСТВО
Настройте на домакинството включват брой членове на семейството над 10 г. и над 18 г., както и нагласе на периоди на отсъствие от жилището и се правят с цел подпомагане на задълбочен анализ на данните за консумацията и използване на точни съвети за рестене на ресурси за конкретното домакинство.

НАСТРОЙКИ НА АПАРТАМЕНТ
Настройте на апартамента включват наличие на изолация, вид отопление, наличие на климатична система и други и се правят с цел подпомагане на задълбочен анализ на данните за консумацията и използване на точни съвети за рестене на ресурси за конкретното домакинство.

НАСТРОЙКИ НА ИЗВЕСТИЯ
Известията са функция на системата, която позволява да бъдете уведомени чрез е-мил или SMS, когато консумацията на електричество или студена вода превзат определена граница.



партньори контакти

Този проект е частично финансиран от Програма за подкрепа на ИТ политиката (ICT PSP) като част от рамковата програма за конкурентноспособност и иновации на ЕС.

Ruse (Bulgaria)

What can be done to maximize acceptance ?

- Work with **tenants associations and representatives** as closely as possible.
- Find ‘champions’ who are willing and able to spread the word (e.g. a “popular ” tenant)
- Include the project into your daily business



Low energy consumption



High energy consumption

- Cost-benefit analysis and business model creation
 - Stakeholder based tool
 - SWOT analysis
- ‘Guide for replication’
 - A manual with lessons learnt, instructions, checklists and recommendations including eSESH results
- Finalisation of evaluation

Thanks for your attention

<http://beca-project.eu/>