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# **Experience with FP7 Energy-efficient Buildings (EeB) projects and their synergies with SMART CITIES**

SMART CITIES AND COMMUNITIES

Prague, 28/05/2013

**Lenka Bajarová**

**AMIRES**

# Summary

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- PPP and EeB
- EeB and Smart Cities
- AMBASSADOR project
- TRIBUTE project
- smart cities in projects
- final remarks

# Public Private Partnership in Research and Development



important aspect for private sector:

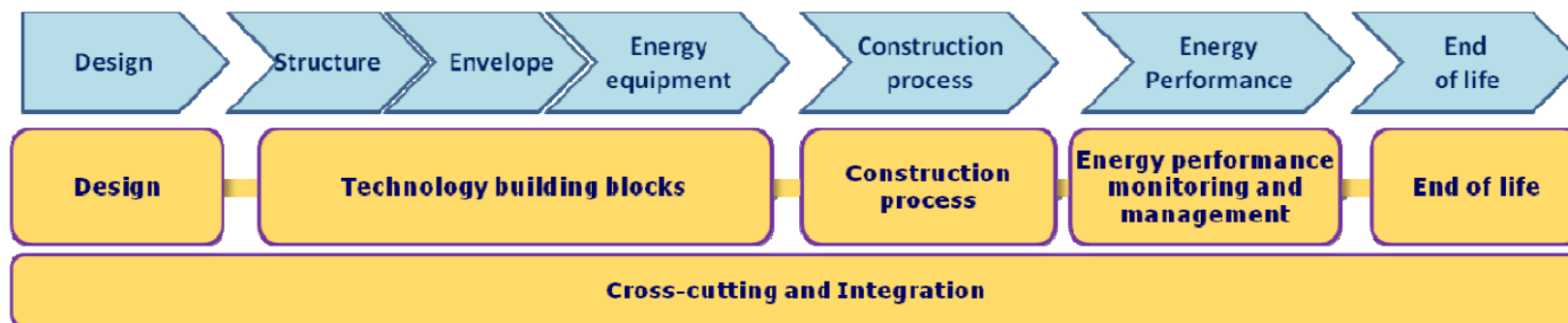
- **active participation of industry through industrial associations**
- **usage of existing instruments** – no new way of proposals submission
- **rapid implementation** – proposal evaluation till two months, negotiation invitation till three months, project start in the period of 0,5 – 1 year (from the call closure)
- **high share of evaluators from industry** participating in projects evaluations
- **challenging topics with interesting EU contribution**
- **long-term vision, continuation in Horizon 2020 is expected**



# PPP Energy-efficient Buildings



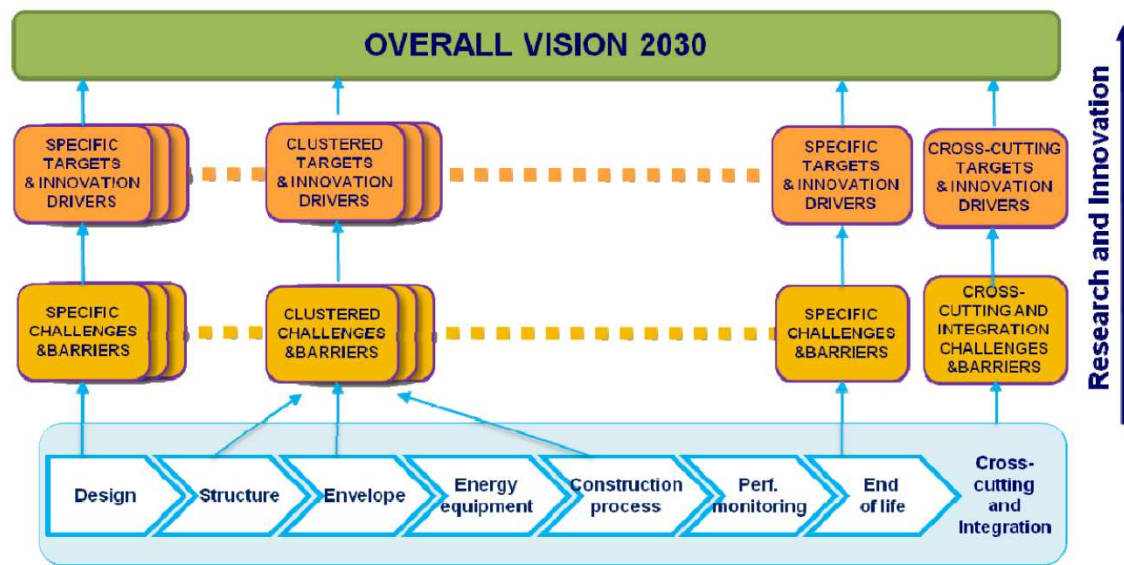
- **key role of E2BA association**
- funds allocated for EeB projects:
  - 2010 – 2013 – EU contribution to EeB **500 mil. €**
  - 2014 – 2020 – expected budget for EeB PPP – **2,1 mld. €** divided between the industry and EC
- funded projects cover the **whole construction value chain**



# EeB and Smart Cities (1/2)



- intended extension of the running PPP EeB towards 2030 represents an additional and fully complementary pillar of the broader Smart Cities and Communities strategy



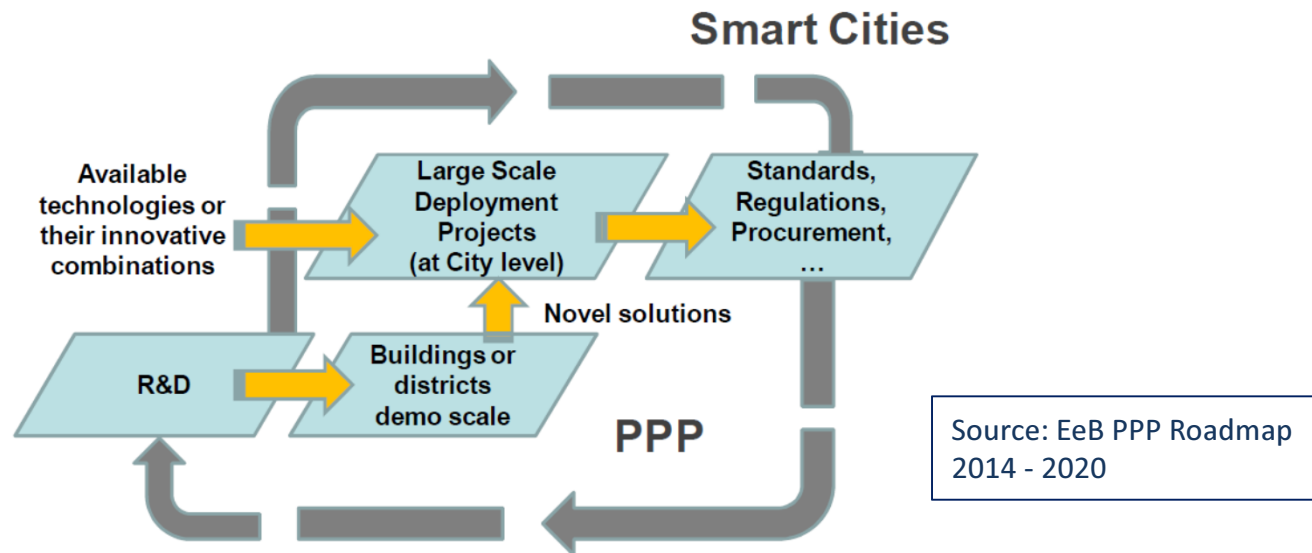
Source: EeB PPP Roadmap  
2014 - 2020

- cross cutting and integration aspects create links along the value chain areas and address the vision of the **buildings and districts as part of a smart community and innovation eco-system**

# EeB and Smart Cities (2/2)



- **EeB goal towards Smart Cities:** developing innovative technologies and solutions which are validated at buildings and districts scale to be tested in the larger Cities framework when available = **additionality** and **complementary** of PPP EeB beyond 2013 within the framework of the broader Smart Cities strategy



# Key aspects for projects submission



- suitable topic
- important **timing** by all partners – **multiwin situation** for everybody
- potential partners' location in the **value chain** – **innovation pairs**
- **experience from previous proposal submission** – unexpected withdrawal of key partners
- **big industrial partner** interest in the project coordination
- clear understanding of hierarchy in big companies especially regarding **their decision powers**
- **research ideas vs. industry needs** => clarification of project idea

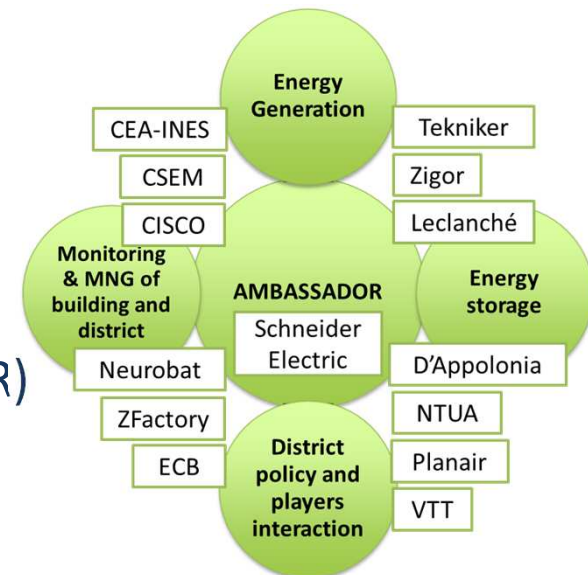




# AMBASSADOR FP7 project



- **Autonomous Management System Developed for Building and District Levels**
- **call:** FP7-EeB.NMP.2012-1 „Interaction and integration between buildings, grids, heating and cooling networks, and energy storage and energy generation systems“
- **duration:** 01/11/2012 – 31/10/2016
- **project funding:** 6,5 mil. €
- **partners:**
  - 15 partners from 11 European countries
  - coordinator Schneider Electric Industries (FR)
  - AMIRES partner for MNG and DISS
- <http://www.ambassador-fp7.eu>



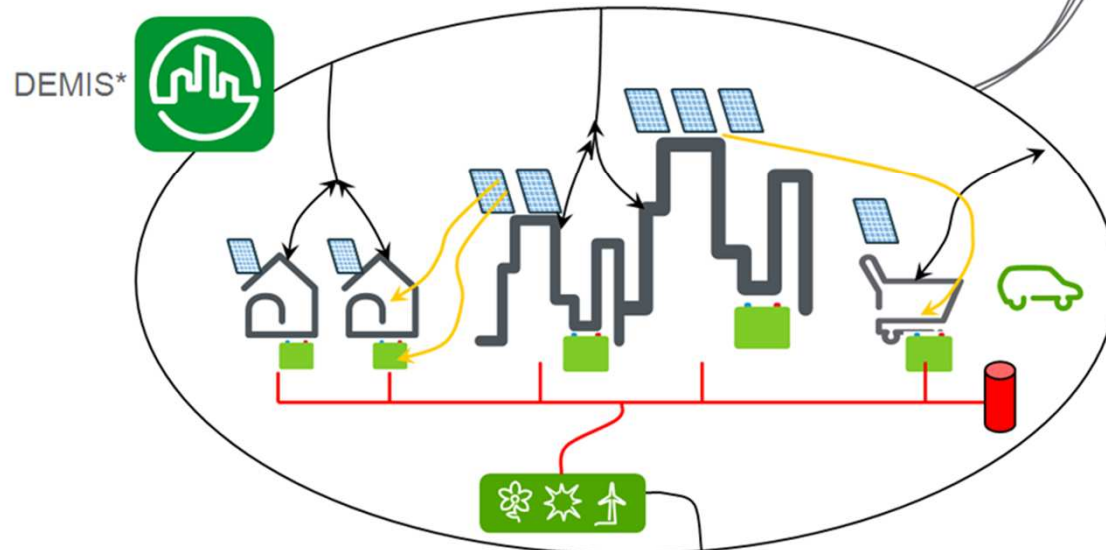
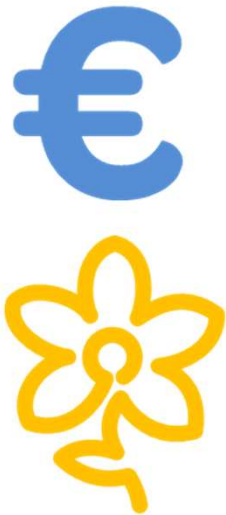


# AMBASSADOR objectives



typical missions:

- to optimize net cost of energy
- to minimize CO<sub>2</sub> footprint
- to allow stand alone mode



\* DEMIS : District Energy Management Information System

# AMBASSADOR testing sites



- testing and validation in min. 2 countries with different climate conditions

BedZED – UK



CEA-INES - France



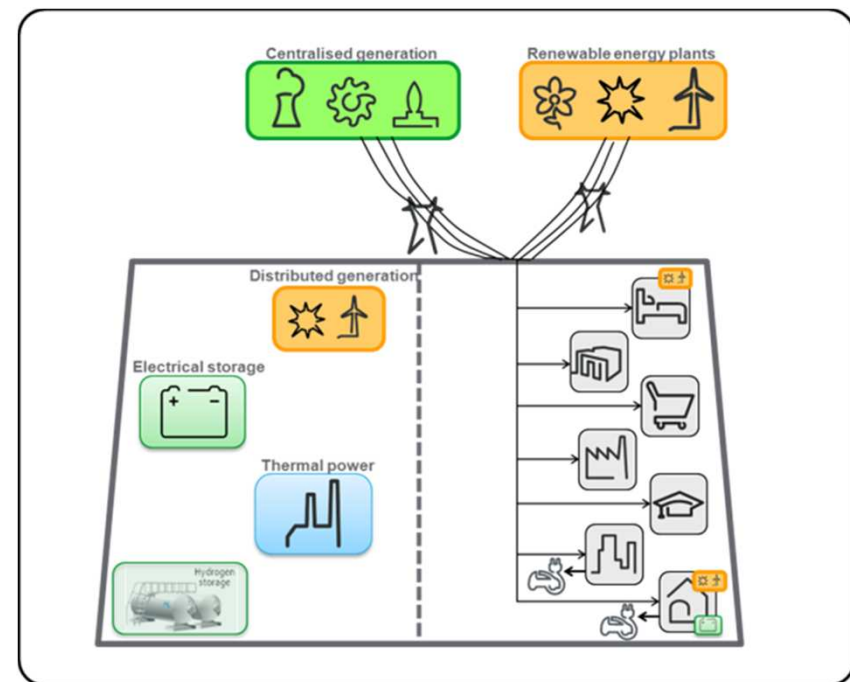
NTUA - Greece

# AMBASSADOR signature



the combination of...

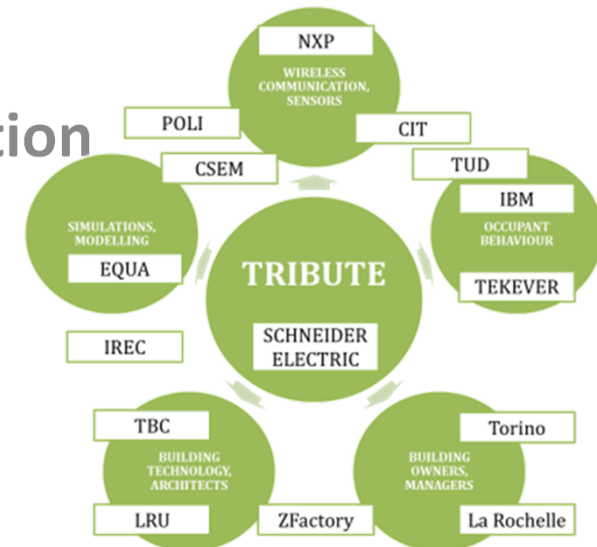
- market analysis : actors, value chain, business potentials
- ecosystem awareness : models, usages, prediction
- flexible district : through horizontal energy flows
- resources sharing : both by individuals and by the district
- energy management strategies : advanced analytics, ICT, anticipation



# TRIBUTE FP7 project



- Take the energy bill back to the promised building performance
- call: FP7-EeB.NMP.2013-4 „Integrated control systems and methodologies to monitor and improve building energy performance “
- project is currently undergoing negotiation
- **expected duration: 4 years**
- **expected project funding: 6,7 mil. €**
- **partners:**
  - 16 partners from 11 European countries
  - AMIRES responsible for project management and dissemination



# TRIBUTE objectives



- minimization of the gap between computed and measured energy performances through the improvement of the predictive capability of a state-of-the-art commercial BEPS
- development of significantly faster and more precise retrofit decision tool that will be offered to European regions and individuals
- improvement of energy flow management due to consideration of occupancy behaviour and continuous health monitoring approach
- occupant is always in the centre





# TRIBUTE testing sites



BedZED – UK



La Rochelle agglomeration - FR



City of Torino – IT



# TRIBUTE Smart Cities



## LA ROCHELLE

- orientation towards innovation and excellence since 70s
- one of its goals: **urban policy of refurbishment => strategy towards retrofitting**
- active in **Energy Cities** (association of local authorities in energy transitions)



## TORINO

- new innovation policy framework for the territory and its institutions (**Torino Smart City Strategy**)
- one of its goals: **smart energy**
- active in **EUROCITIES** network of major European cities





# Final remarks



## DURING NEGOTIATION

- administrative activity with Participant Portal
- validation of new partners / third parties involvement
- financial viability of industrial partners / coordinator



## AFTER PROJECT START

- interest of industry especially for the content and results of the projects
- IPR projection is key
- good planning and a lot of enthusiasm right from the beginning



„Make things as simple as possible, but not simpler“

# Thanks for your attention!

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## AMIRES s.r.o.

Golfová 13  
Prague 10 - Hostivař

GSM CZ: +420 724 840 046  
GSM CH: +41 796 784 295

E-mail: [bajarova@amires.eu](mailto:bajarova@amires.eu), [frycek@amires.eu](mailto:frycek@amires.eu)

[www.amires.eu](http://www.amires.eu)