

CONCERTO and Smart Cities:
Addressing the Challenges of tomorrow

Alexandros Kotronaros
European Commission
Directorat General for Energy
New energy technologies, innovation and clean coal

20/10/2011

Energy efficiency has multiple benefits

COMPETITIVENESS

- cut Europe's energy bill by about €200 billion / year in 2020
- lower households' bills by about €1000 per household / year
- create up to 2 million jobs by 2020
- boost R&D and create markets where EU can become a global leader

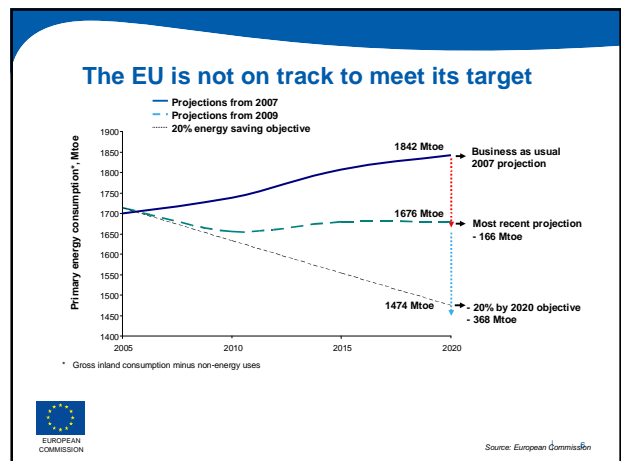
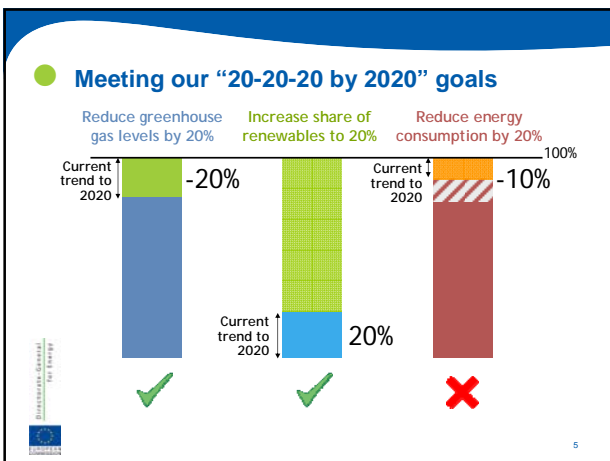
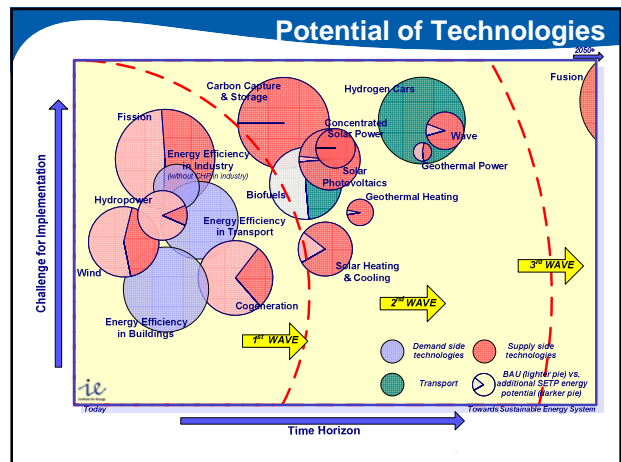
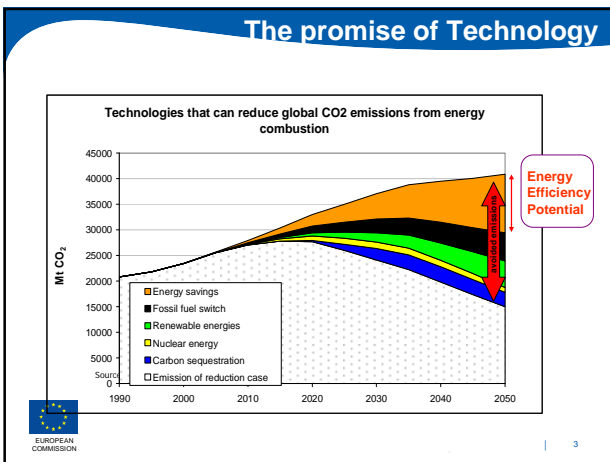
SECURITY OF SUPPLY

- decrease our energy dependence
- help balance our trade
- alleviate the need for gas pipelines and grid investments

SUSTAINABILITY

- help fight climate change: - 740 Mt CO₂ / year in 2020
- limit environmental degradation

Source: European Commission



Legislation
Directives concerning :

- Buildings
- Cogeneration
- Energy services
- Appliances
- RES



Financial support

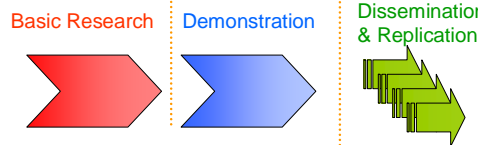
European funding mobilised

- ✓ Structural funds/ERDF (incl. JESSICA)
- ✓ Intelligent Energy – Europe Programme
- ✓ ELENA Facility
- ✓ Smart cities
(within the 7th Framework programme for Research)
- ✓ Public Private Partnerships
(within the 7th Framework programme for Research)



Financial Support for EE in Buildings

Structural Funds **RECOVERY PLAN** + **500 M€**
Energy-Efficient Building (PPP) (EC support)

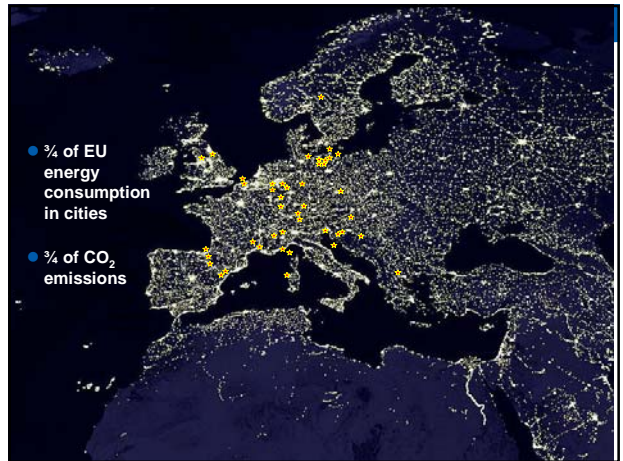


EC Total Financial support **50 M€ + 180 M€ + 34 M€ = 264 M€**

Eco-Buildings Initiative

CONCERTO initiative

IP-IEE Programme (EE in buildings)

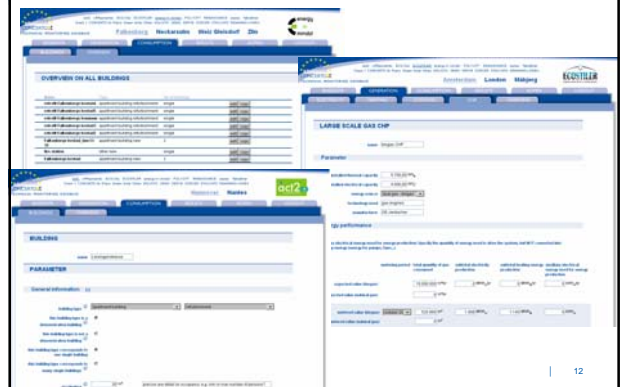


- 3/4 of EU energy consumption in cities
- 3/4 of CO₂ emissions

Covenant of Mayors



Importance of CONCERTO Technical Monitoring Data Base



Unprecedented growth of the Covenant of Mayors:

Today, **2975** cities committed to reduce CO2 emissions on their territories by at least 20% by 2020

131 million inhabitants

44 Countries

25 Capitals



Is your city/region in?

4 May 2010
Hemicycle of the European Parliament, Brussels




799 Sustainable Energy Action Plans submitted so far




www.eumayors.eu




Leading role of the public sector

- Energy efficiency in public spending**
 - High energy efficiency standards when purchasing goods, services and works
 - Use of energy performance contracting as a way to improve and finance energy performance improvements
 - For additional buildings to be rented/ purchased, these should be of the best available energy performance class
- Renovation of public buildings**
 - Annual 3% refurbishment (by floor area) bringing the energy performance level to the level of the best 10% of the national building stock
- Energy efficiency on the ground**
 - Further promotion of the Covenant of Mayors
 - Launch of a new Smart Cities and Communities initiative

15



Smart Cities and Communities

Each city is unique ...

... but there are common challenges!



Smart Cities 'philosophy'

- Identify common challenges
- Develop innovative, replicable solutions
- Bundle demand from cities
- Attract and involve business and banks
- Create markets!



17

Smart Cities

Energy efficient Buildings PPP 500M€+500M€

DG Research

DG Information Society

DG Energy

DG Enetrprise

Energy in cities
Strategic planning and modelling of flows

Energy networks
electricity and heating & cooling;

Buildings
insulation, holistic approach;

Supply technologies
electricity and heating & cooling, local production

Transport

Information Communication Technologies

