

EU SUSTAINABLE ENERGY WEEK
15-19 JUNE 2015



EPBD review and EU policies for the improvement of buildings energy efficiency

Heating, cooling and ventilation:
how to achieve the largest savings
in buildings pursuing the EU's
energy strategy?

Brussels, 17 June 2015

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European buildings in figures

- *40% of the EU's total final energy consumption*
75% of our housing stock is energy inefficient
- *Long-term assets (50 or more years)*
- *Low demolition rates (0.1% per year) and low refurbishment rates (1.2% per year)*
- *Responsible for almost two thirds of EU energy used for heating and cooling*
- *80% of energy needs in buildings used for heating and hot water*

Energy Efficiency Communication

ENERGY EFFICIENCY IS one of the most cost-effective options for reducing greenhouse gas emissions, while improving the security of our energy supply and creating jobs

TODAY ENERGY EFFICIENT SOLUTIONS INCLUDE

- Energy efficient BUILDINGS** to lower consumption, to improve air quality and to reduce external noise
- HYBRID and ELECTRIC CARS** to reduce fossil fuel use and dependence
- Smart METERS** to control energy use
- Households APPLIANCES** to cut energy bills and to promote competitive products

ENERGY EFFICIENCY WORKS !

- NEW AND RENOVATED BUILDINGS** consume 50% of the energy they did in the 1980s
- NEW CARS** consume 2 litres less fuel than in 1995 (reduction from 7.7/100 km to 5.6/100 km)
- EU INDUSTRY** energy intensity fell by 19% between 2003 and 2011
- REFRIGERATORS** rated A and above increased their market share from <5% (1993) to 99% (2012)

TOMORROW

- ~100% households will have smart meters
- Member States will invest **€45 billion** in smart meters for electricity and gas
- The EU will invest in **energy efficient buildings**, notably in the extensive renovation of existing buildings
- Households will **save about €465/year** through energy efficient appliances

OUR LIVES Better homes, control of energy use, lower energy bills

ENERGY DEPENDENCE 1% of energy savings = 2.6% fewer gas imports

INDUSTRY Opportunities for local companies and high value-added appliances in an efficient market

CLIMATE Reduced greenhouse gas emissions

GROWTH Further investments in energy saving technologies to benefit the economy

JOBES More jobs, especially in construction and equipment

TARGET 20% 2020

TARGET 30% 2030

#EUEnergyChallenge #EnergyEfficiency



Buildings in the General policy framework

Energy Efficiency Communication [COM(2014) 520 final]

- 2030: buildings a key sector to tackle
- Multiple benefits of investing in buildings efficiency

Energy Union Communication [COM(2015) 80 final]

- "... will pay particular attention to those sectors with huge efficiency potential, in particular the transport and buildings sector"
- "...Retrofitting existing buildings [...] will reduce the EU's energy import bills, reinforce energy security and cut energy costs for households and businesses."

Better enforcement

"Full implementation and strict enforcement is the first priority to establish the Energy Union"

Energy Union Communication, February 2015

***Energy Performance of
Buildings Directive
Energy Efficiency Directive
Directives on Ecodesign and
Energy Labelling***



The EPBD is the main instrument addressing building efficiency

Specific provisions on:

- **Regular inspections heating and AC systems**
- **System requirements in case of retrofit/replacement**
- **Mandatory feasibility study (before construction) for highly efficient alternative systems**

Experience with application: evaluation and review of the EPBD

Practical experience with implementation

- **Some challenges: enforcement of system requirements; responsibility to regulate general indoor environmental quality lies with the Member States**

More general question: Is the Directive (still) fit for purpose?



European
Commission

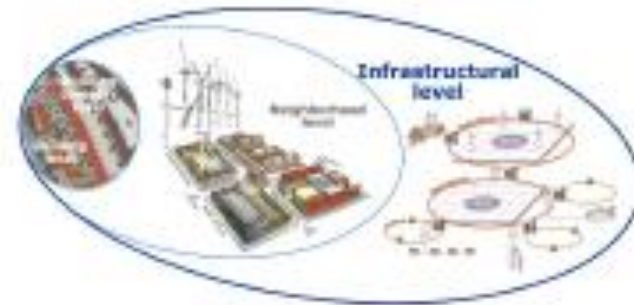
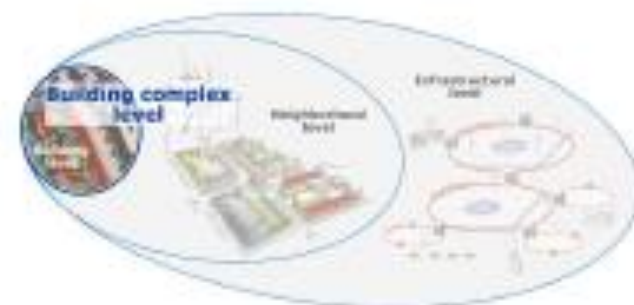
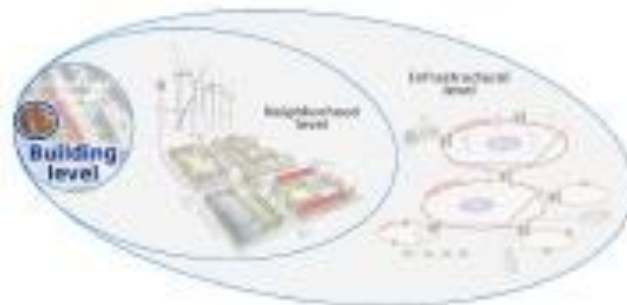
Think beyond the building

*District energy
and demand
response*

*Renewables-
NZEB*

*National
building
renovation
roadmaps*

H&C strategy



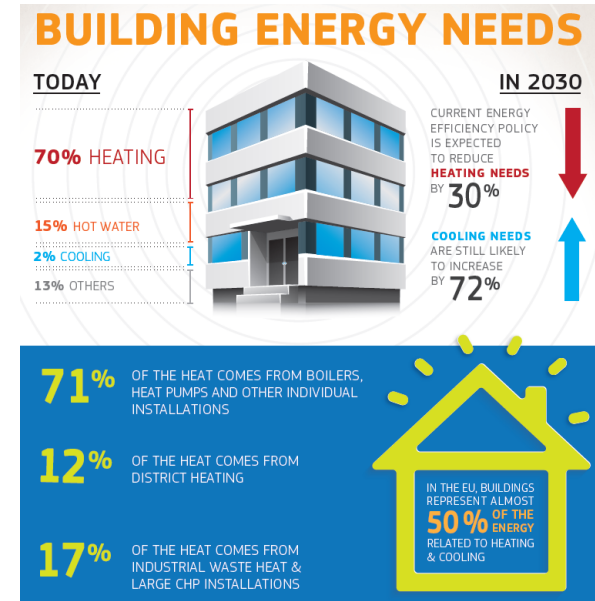
... some challenges

*Financing and innovation,
combined with recognised
standards*

Better data

*Facilitating a consumer-led
market*

*Supporting advanced home
appliances*





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