

# Energy Efficiency in EU buildings

CPI WORKSHOP, BERLIN

18 FEBRUARY 2011

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# Overview

- A Few Words about BPIE
- EU Buildings: opportunities & challenges
- Financing EE in EU Buildings
  - Barriers
  - Recommendations


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# BPIE

- Non-profit association based in Brussels
- Founding partners: eceee, European Climate Foundation, Climate Works
- Started to operate in February 2010
  
- Focus on energy efficiency in buildings throughout Europe
- Centre of expertise in buildings (technical expertise)
- European centre for a global best practice network
- Targeted research, policy analysis & evaluation, support policy implementation, dissemination of information

# Our mission

- Support the development of ambitious  but pragmatic buildings related policies and programs at EU and Member State Level.
- Drive timely and efficient implementation by teaming up on European and member state level with local authorities, communities, industrial players, research organisations and consumers.
- Provide the knowledge that is necessary to conduct both activities successfully

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# EU buildings in figures

- ~160 million buildings
  - 80 -90% of our time indoors
  - ~1% new built yearly
  - 40% of final energy consumption
  - 36% CO<sub>2</sub> emissions
  - ~10% of EU GDP
  - 7-8 % of EU employment
  - 2.7 million enterprises (85% SMEs) in construction sector
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- 28% of Cost-effective energy savings in 2020

\* Source: Eurostat/ EU Commission

# EU legal framework

## EPBD (2002/91/EC)

- requirements for the energy performance of buildings at an EU level
- methodology for calculating the energy performance of buildings
- scheme of assessing the energy performance of a building .

## EPBD (2010/31/EC)

- New **nearly-zero-energy** buildings constructed after 2020 consume (public sector buildings in 2018)
- For the retrofit of buildings, the **1000 m<sup>2</sup> threshold** was eliminated from the recast EPBD.
- A more detailed and rigorous procedure for issuing energy performance certificates will be required in MS.
- A harmonised calculation methodology to push-up MS minimum energy performance requirements towards **cost-optimal levels** is set out (to be refined in a comitology process)



# But implementation lagging behind

- **Policies:**
  - Focus on **supply** side
  - EPCs: large scale implementation but many obstacles
  - Lack of common understanding of **nZEBs**
- **Financing large-scale retrofits:**
  - Public authorities with limited budget
  - Impact of economic crisis
  - ROI issue, creation of lock-in effects
- **Technical:**
  - Quality of renovations, but technology ok to reach the political targets
  - Lack of trained workforce
- **Other:**
  - **Split incentive** issue
  - Lack of **information** and **experience** of actors in building chain

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# Barriers to financing EE

- High upfront investment costs
- Risk Exposure
- Payback time
- Uncertainty associated with energy/cost savings
- Lack of financier awareness
- Size of Investment

# Recommendations

## 1. REGULATORY ACTIONS

- Develop/adapt building codes to align regulations with policy objectives
- Facilitate effective use of existing financial instruments by improving regulatory framework (Grants, subsidies, fiscal measures and VAT reduction)
- Encourage use of public procurement policy to promote EE & stimulate use of latest technologies
- Cost of EE upgrades to be attached to home not to homeowner
- Provide regulatory framework in housing (split incentive, housing associations)

*Based on Chairman's Conclusions during BPIE rountable on "Financing energy efficiency in European Buildings: How to boost large scale retrofit?" held in November 2010 in Brussels*

# Recommendations

## 2. NATIONAL PROGRAMMES

- Develop specific programmes providing initial financing through local authorities for public buildings
- Support cities, ESCO companies & commercial banks by implementing capacity building programmes
- Adapt best practice models & innovative investment schemes (KfW, GIS scheme, PAYS model) into their national territories
- Provide financing support solutions for SFHs in addition to commercial, public & MFHs
- Determine an evaluation methodology going beyond the CO<sub>2</sub> emission reduction, e.g. integrate level of leverage, market transformation, job creation, energy saving costs

*Based on Chairman's Conclusions during BPIE rountable on "Financing energy efficiency in European Buildings: How to boost large scale retrofit?" held in November 2010 in Brussels*

# Recommendations

## 3. EU FUNDING

- EC to continue support MS in developing focused national programmes; provide technical assistance (e.g. ELENA facility) & guidance on use of structural funds;
- MS to make full use of available structural funds & maximise leverage
- MS to revise operational programmes & request permission from EU to reallocate unused money to EE programs
- Industry to actively participate in EU R&D programmes by establishing public-private partnerships

# Recommendations

## 4. COMMERCIAL FUNDING

- IFIs & commercial banks to reduce gap between regulations and end-users, provide technical assistance to clients, facilitate access to finance
- IFIs & commercial banks to design innovative financial engineering instruments (e.g. Public-private partnerships, third party financing, white certificates, etc.)
- Commercial banks to train staff in order to give advice to consumers on how to implement EE measures
- Industry and professional associations to provide education and training to workers and members

*Based on Chairman's Conclusions during BPIE rountable on "Financing energy efficiency in European Buildings: How to boost large scale retrofit?" held in November 2010 in Brussels*

# Thank you!

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