

# Current experiences with financial instruments on building renovations

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*Serving society*  
*Stimulating innovation*  
*Supporting legislation*





- 1. Work carried out by the JRC**
- 2. Landscape of national instruments across the EU**
- 3. Selected case studies for public renovations**
- 4. Recommendations**



## Aim

- Review of national financial instruments targeting energy renovation of building stock, discuss success elements, how these measures can be more effective in the future and identify innovative mechanisms

## Focus

- On-going instruments (in 2013) such as loans, subsidies, tax incentives, energy saving obligations, etc. which yield direct interventions in existing buildings, leading to an "energy renovation" of an existing building:

- ✓ Building envelope
- ✓ Renewable electricity generation systems
- ✓ Renewable heat generation systems
- ✓ Technical building systems
- ✓ Other energy and non-energy related measures
- ✓ Connection to DH

## Methodology

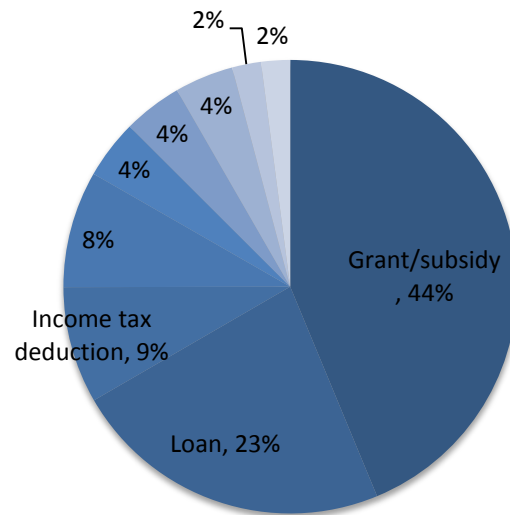
- Collection of data (design of questionnaire, contact with national experts, desk research, interviews)
- Work in progress (collected data for more than half of Member States so far), intermediate results



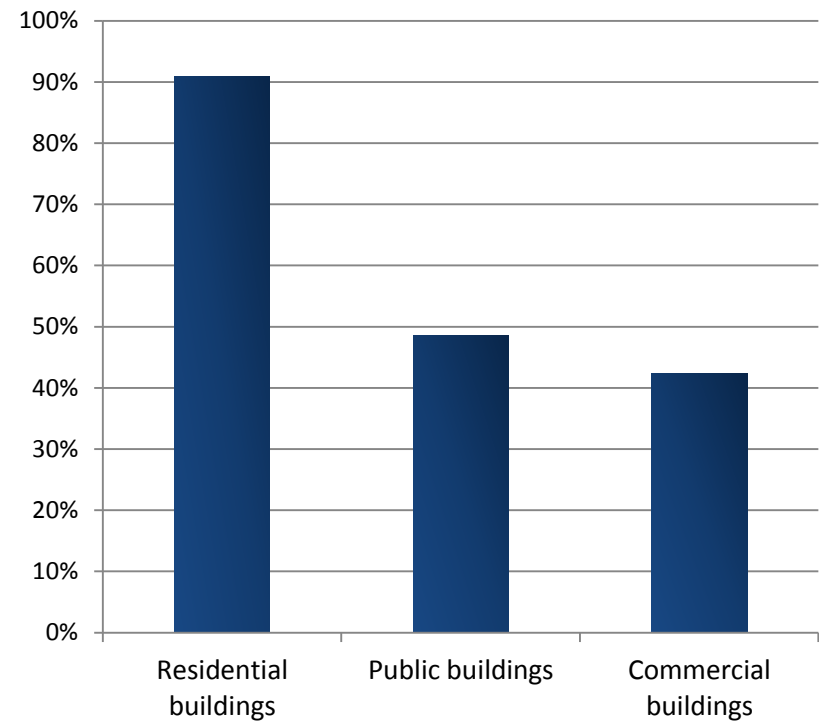
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## Type of instrument

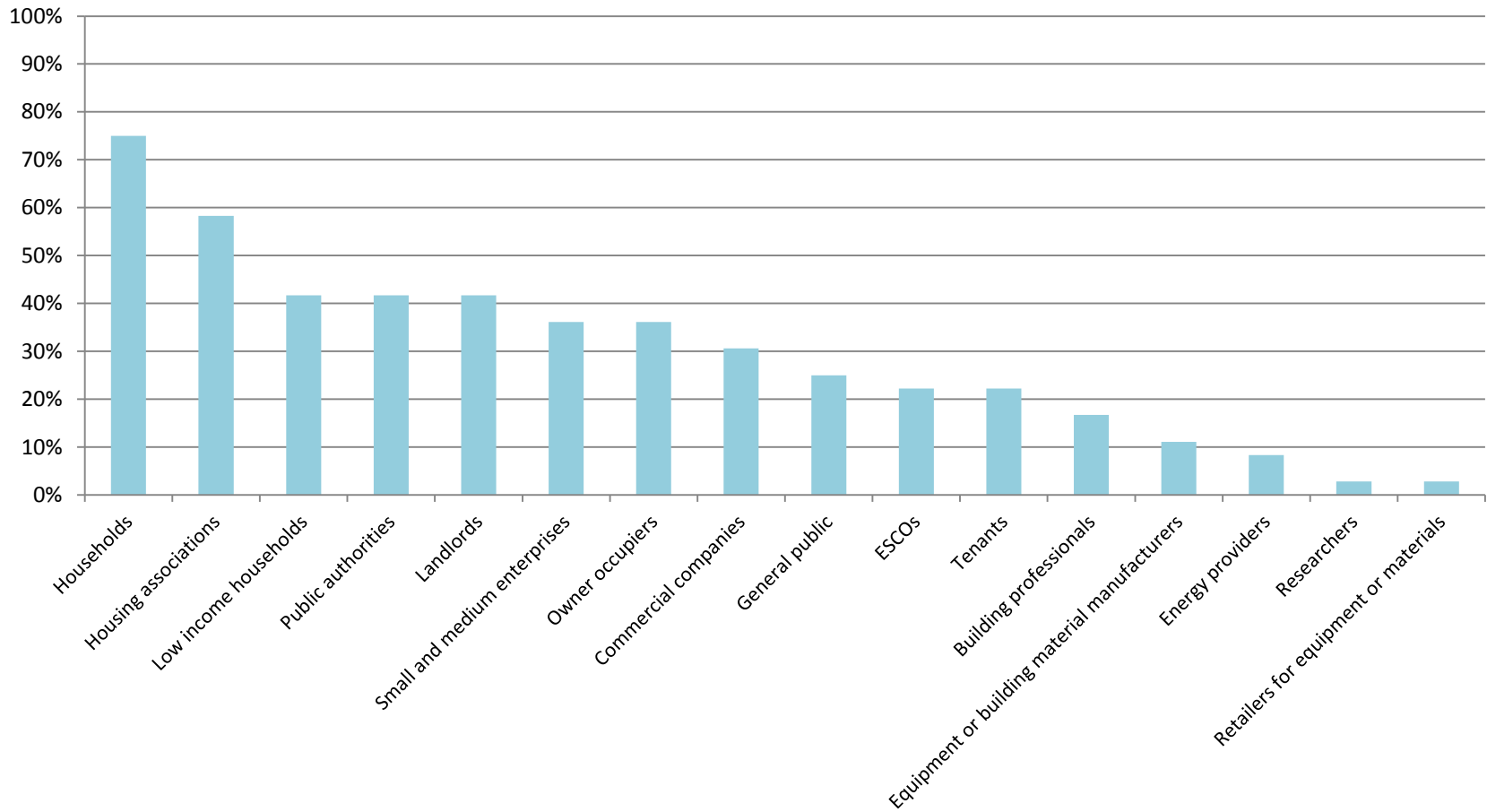
- Grant/subsidy
- Loan
- Income tax deduction
- Energy saving obligations
- Guarantee funds
- Supporting policies for ESCOs
- Income tax credit
- White certificates



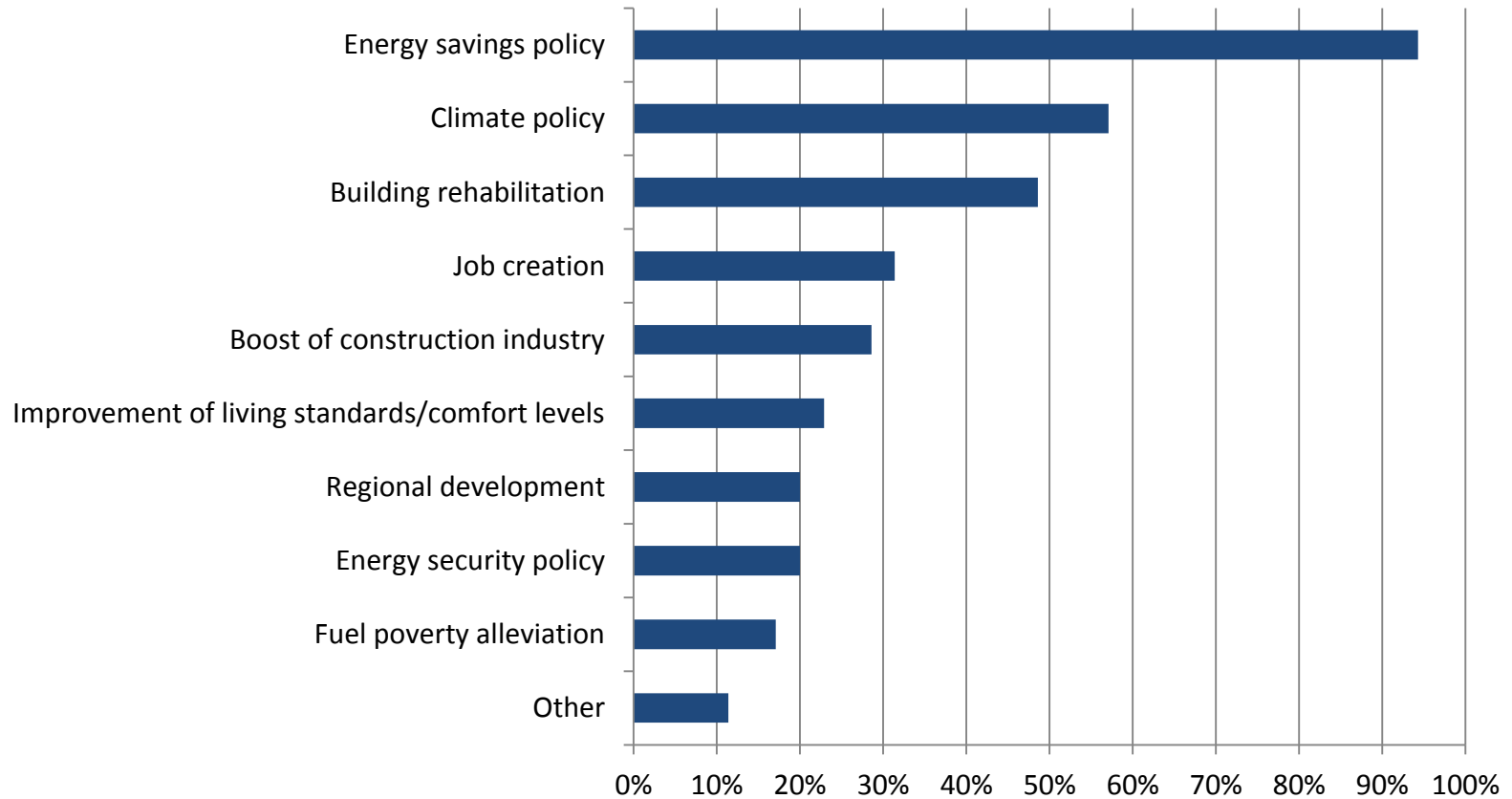
## Type of buildings



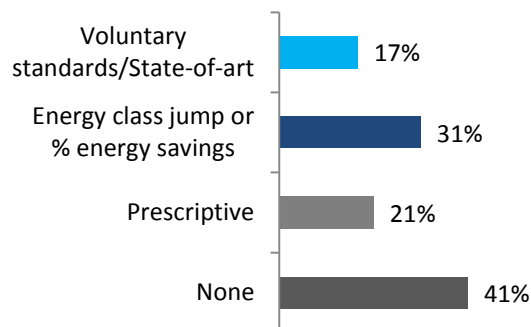
# Target groups



# Policy driver



## Linking criteria with energy performance

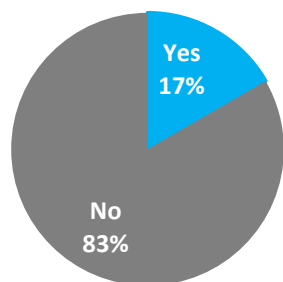


Some examples of more ambitious energy-related criteria:

- **KfW Scheme (DE):** KfW standards, which are at least 25% better than the current building code levels (EnEV) – selling point
- **Green loan 0% / grants (BE):** "low energy", "very low energy" and "passive" renovation
- **Upper Austria housing subsidy (AT):** 50% improvement comparing before and after

However, most instruments achieve lower savings in the range of **10-40%**

## Linking financial support with renovation depth



The majority of instruments do **not** align financial support with renovation depth, but there are a few exceptions, e.g.:

- **Green Funds Scheme (NL)** maximum amount of green mortgage increases if energy label jump is larger
- **Kredex (EE)** Grant intensity increases with more ambitious energy label class (15% → 35%)
- **KfW Scheme (DE)** Subsidy (debt relief) increases in proportion with KfW standard





## National budget

- General budget allocations, earmarked taxes/charges
- Burden on public finances

## Emission allowance trading

- Sale of Assigned Amount Units (AAUs) under Kyoto *Green Investment schemes* Czech Republic, Estonia, Hungary, Latvia, Lithuania, and Poland

## EU funding

- European Structural and Cohesion Funds, European Regional Development Fund (ERDF), European Local Energy Assistance (ELENA) Facility, European Energy Efficiency Fund, e.g. Latvian instrument supporting energy efficiency in multi-apartment buildings" – 100% ERDF, Estonia Kredex programme 25% ERDF, Greek instrument on residential building around 60% EU funding

## IFIs

- E.g. EBRD funding (BU, RO), Global Environment Facility (GEF) of the World Bank for the Bulgarian Energy Efficiency Fund.

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## **(1) Local Action Plan for Energy Management (PLAGE) in Brussels Re. (Belgium) – Pilot**

**Target:** Schools, hospitals, public housing, buildings occupied/managed by municipalities

**Instrument type:** Grant, paying salary of energy manager

**Funding:** 100% regional budget (about 8 million since 2006)

**Procedure:** energy manager hired to survey energy consumption on a monthly basis of a number of buildings - priority buildings are screened (i.e. least efficient ones) for which energy audit is carried out and measures selected based on cost/efficiency.

**Intermediary:** Government

**Impact so far:** 313 priority buildings improved

## **(2) Program EXOIKONOMO (Energy Saving) in Greece**

**Target:** Municipal buildings

**Instrument type:** 70% subsidy covering costs of technology, installation, certification

**Funding:** Subsidy is covered 50 by % national budget and 50% by EU funding

**Intermediary:** Government

**Impact so far:** 104 municipalities, interventions to take place in 2014

# Focus on public sector



## (3) Energy saving through the refurbishment of public buildings - Estonia

**Target:** municipality buildings, e.g. schools, cultural institutions, hospitals

**Funding:** sales of surplus AAUs

**Procedure:** RKAS company is responsible for development and management of state assets - the renovation process is arranged by the RKAS under the supervision of the Finance Ministry.

**Impact so far:** 480 buildings by end 2012 (EUR 146 million)



## (4) Energy Efficient Renovation of Public Buildings - Slovenia

**Target:** schools, buildings for higher education, public buildings for scientific purposes

**Instrument type:** grant

**Funding:** 90% EU cohesion budgetfunds/10% national, plans to introduce Energy Performance Contracting

**Intermediary:** Government

**Impact so far:** 126.000 m<sup>2</sup>

# Bank involvement



## Germany



- Public bank (sourcing funds with relatively low interest rates) – 2011 EUR 10 billion on EE
- “On-lending” via commercial and savings banks
- Lower than market-based interest rate
- Residential and public buildings -- refurbishment of 1.4% of the national residential building stock

## Bulgaria



- First commercial scheme of its type, credit line provides assistance in EE related capacity building (among banks and households) and increases financial intermediation;
- EBRD funds of up to EUR 40 million; contributing part from Kozloduy International Decommissioning Support Fund (KIDSF);

## Netherlands



- “Green funds” managed by banks; private individuals provide capital for green projects through incentives with tax system. Banks then lend money to green projects on favourable terms
- In 2010 alone the scheme generated green investment of €6 billion, which “cost the country barely €150 million in tax incentives”.

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# Recommendations



- Prioritisation of buildings: inventory of all buildings, least energy efficient buildings should be targeted first
- Energy performance as a whole avoids lock-in effects but also gives flexibility to reach clear targets in the most cost-effective way
- Seek higher involvement of banks. Current experience from public authorities can help familiarise financial institutions with energy efficiency projects and attract low cost capital
- Important role of ESCOs in the public sector buildings and energy performance contracting/third party financing. Diverse stages of development of ESCO market in Europe but high potential.



# Thank you for your attention

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