SHALFER Final event Dublin, May 22<sup>nd</sup>, 2013

#### Retrofit financing schemes for social housing

Yamina SAHEB
Head of Sustainable Buildings Centre
International Energy Agency
yamina.saheb@iea.org

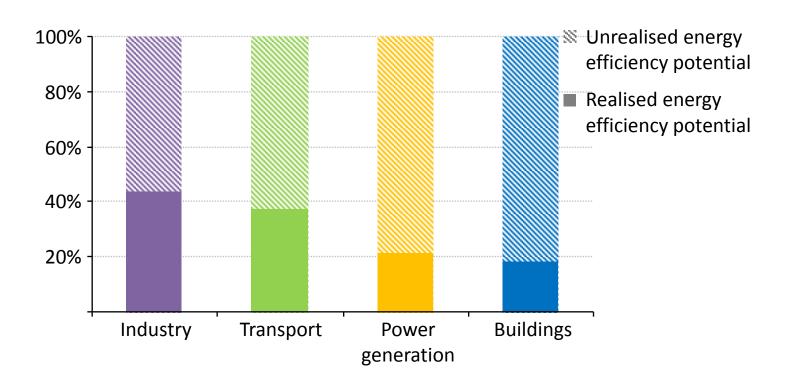


International Energy Agency



### **Energy efficiency: a huge opportunity going unrealised**

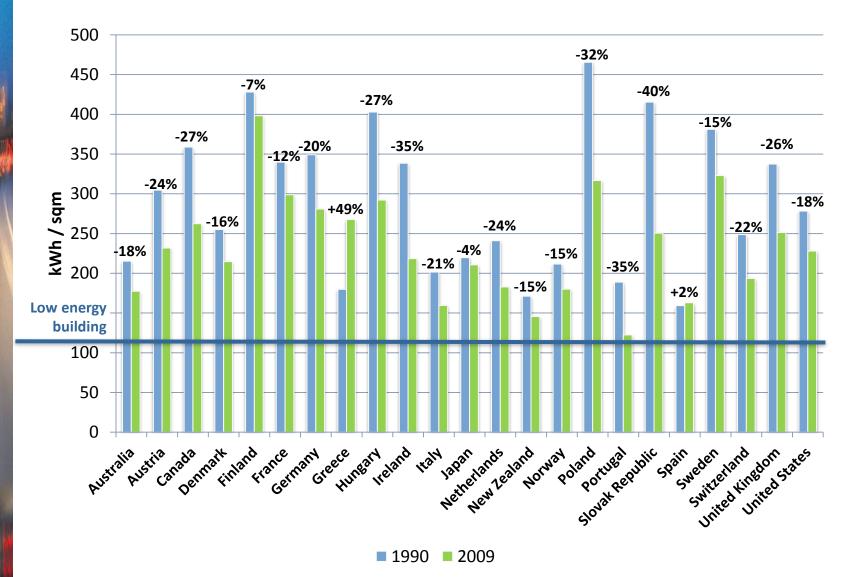
#### **Energy efficiency potential used by sector in the New Policies Scenario**



Two-thirds of the economic potential to improve energy efficiency remains untapped in the period to 2035

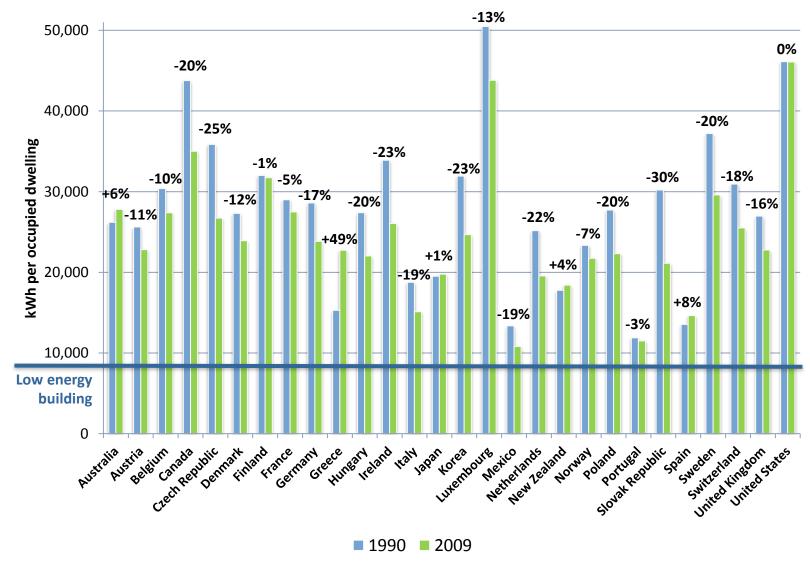


### Residential primary energy consumption per square meter in IEA countries since 1990



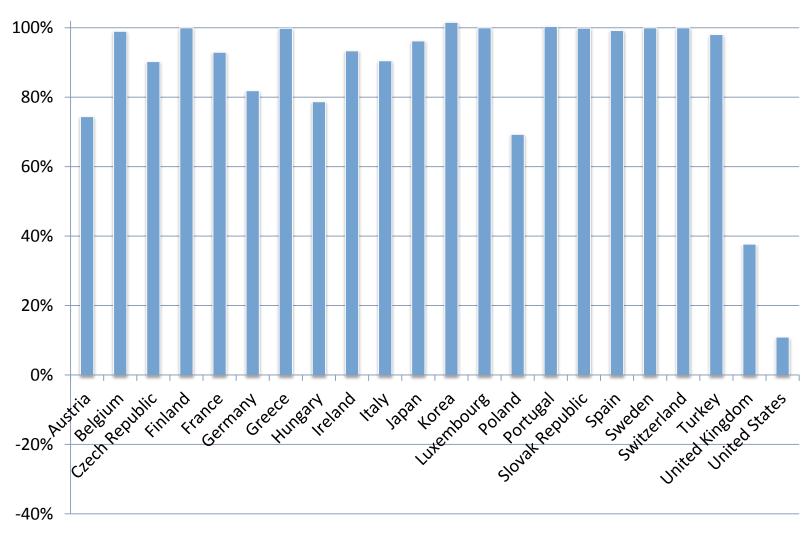


### Residential primary energy consumption per dwelling in IEA countries since 1990



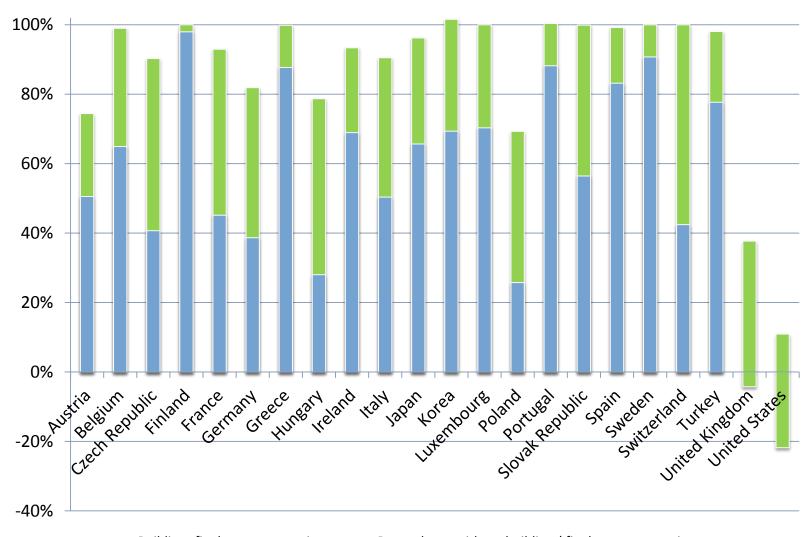


#### IEA natural gas dependency rate...



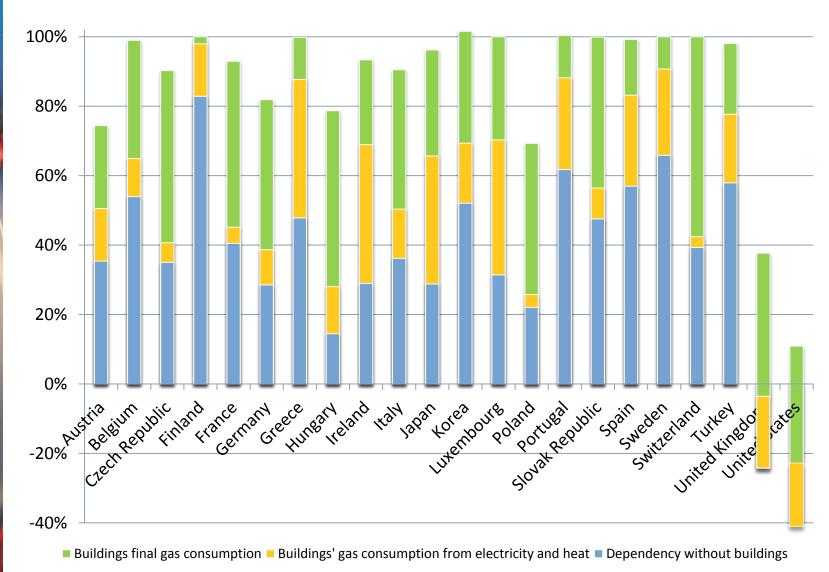


## ...is heavily impacted by buildings' final natural consumption...





## ... and even more when considering gas used by buildings' electricity and heat





### Multi-storey residential buildings in Bucharest

- Large scale thermal renovation of 300 multistorey blocks (25.000 apartments)
- Funding through grant from Romanian Govt and loan from EIB to the municipality (market interest rate for a period up to 15 years)
- 80% grant provided to home owner association and 20% loan pre-finance by the municipality
- Multiple benefits: increased property value, increased comfort, creation of local renovation market, decrease of energy bills



### Multi-storey residential buildings in Bucharest

- Part of the loan is repaid through energy savings
- A consortium of home owners lower the risk compared to individual applicants
- Third party (municipality) guarantee the repayment of EIB's loan
- Programme coordinated by the municipality: Local One Stop Shop to minimise administrative burden
- Standard EE measures to implement : replicable solutions per construction period
- Energy renovation was part of urban renewal programme of the municipality



# French Social Housing Energy Efficiency Investment project

- Political will; stringent energy reduction targets in social housing to tackle fuel poverty
- Social housing organisation contributed to the development of a loan for social housing
- Preferential loans (1.9%) subsidised by Govt + reduced council tax rates
- Bundling funding in one single fund dedicated to energy renovation
  - Grant from ERDF: Use structural funds for social housing
  - Eco-loan from CDC: preferential loans (1.9%) subsidised by Govt
  - Higher rent for some tenants
  - Income from sale of white certificates to energy providers
  - Reduced council tax rates



## French Social Housing Energy Efficiency Investment project

- ERDF funding to support stakeholders' coordination and communication
- Public guarantee of financial risk
- MEPS requirements: moving from class E, F, G to A, B, C. Avoid the lock-in effect
- In some regions, the social housing association acts as the local One Stop Shop
- Call for tenders to select the Best Available Solutions
- Multiple benefits: reduced fuel poverty, increased local employment, improved standard of living, protection from fuel price volatility....



#### **Energy savings obligations in the UK**

- Energy providers are <u>obliged</u> to meet Carbon and energy reduction targets, otherwise they pay a penalty (up to 10% of their global turnover)
- Energy services contracting: Energy providers pay the up-front cost, householder repays through charges on their energy bill (on-bill financing)
- Partnerships with different stakeholders (housing corporations, municipalities, manufacturers...)
- Multiple benefits: reduced fuel poverty, increased comfort, reduced health expenditures.



#### **Energy savings obligations in the UK**

- Risk for government to not meet its obligations when all low-hanging fruits solutions are implemented.
- Risk Financial solvency of energy producers as benefits from energy savings are long-term
- Lack of transparency on the cost of the measures and the savings
- Lack of trust of energy supply companies by consumers
- New business model for energy renovation

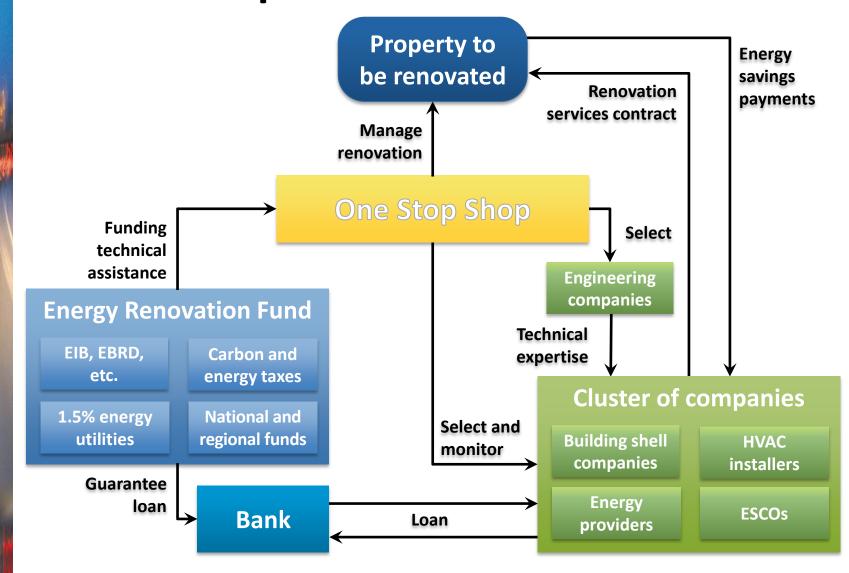


### Low energy buildings meet essential needs and secure our energy future

- Shift from single building to overall building stock to achieve low energy building stock by 2050
- Mandatory energy renovation each time renovation is conducted
- Binding annual energy renovation rate targets
- European energy renovation guarantee fund
  - Technical assistance
  - Establishing guarantee systems
  - Stimulating private sector
- Renovation services contracting
  - One-stop shop
  - Overall performance-based approach to estimate renovation deepness
  - Consortium of companies
  - Guaranteed results
- Monitoring and compliance-checking

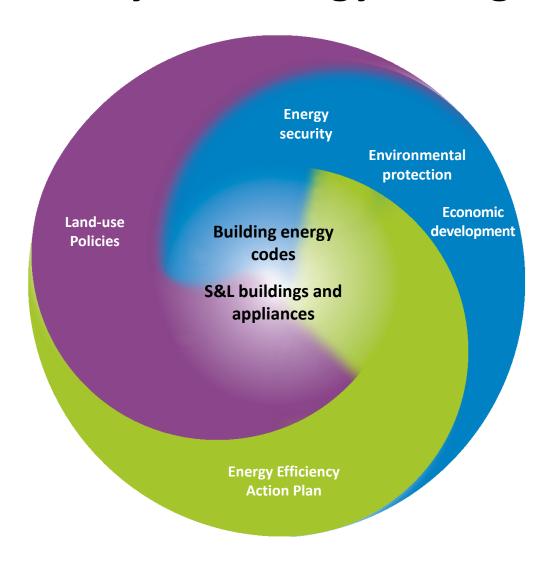


## SBC Market framework proposal to enable deep renovation





# Buildings require a holistic approach that goes beyond energy savings





#### The pathway to low energy buildings

	Energy sufficiency	Energy efficiency	Renewable energy
Energy t strategy	Reduce energy needs	Reduce energy consumption	Supply with renewable energy
Policy instrument	Land use policies Building energy codes	Building energy codes  S & L policies	Land use policies  Building energy codes  S&L policies for equipment
Policy measure	Bioclimatic design principles  Use of passive solutions	Mandatory S&L for:  • overall building energy performance  • building elements and equipment	Mandatory share of supply from renewable energy sources  Mandatory S&L for equipment

#### The IEA's global hub for low energy buildings

### Sustainable Buildings Centre

Web platform

Analysis

Engagement

SBC website

BEEP database

Policy analysis

Modelling renovation

Industry partners

Mutilateral organisations

**IEA Partners**