



European trends – Role of National Renovation Strategies in nZEB renovation of the EU building stock

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Energy Efficiency and Sustainability in
Mediterranean buildings and communities
– Challenges and prospects

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Athens, Greece



Multiple Benefits



Job creation



Economic activity



Reduction in social security costs



Reduction in energy consumption



Regeneration of urban areas



Property values



Energy security



Comfort and indoor climate



Improved productivity



Fuel poverty alleviation

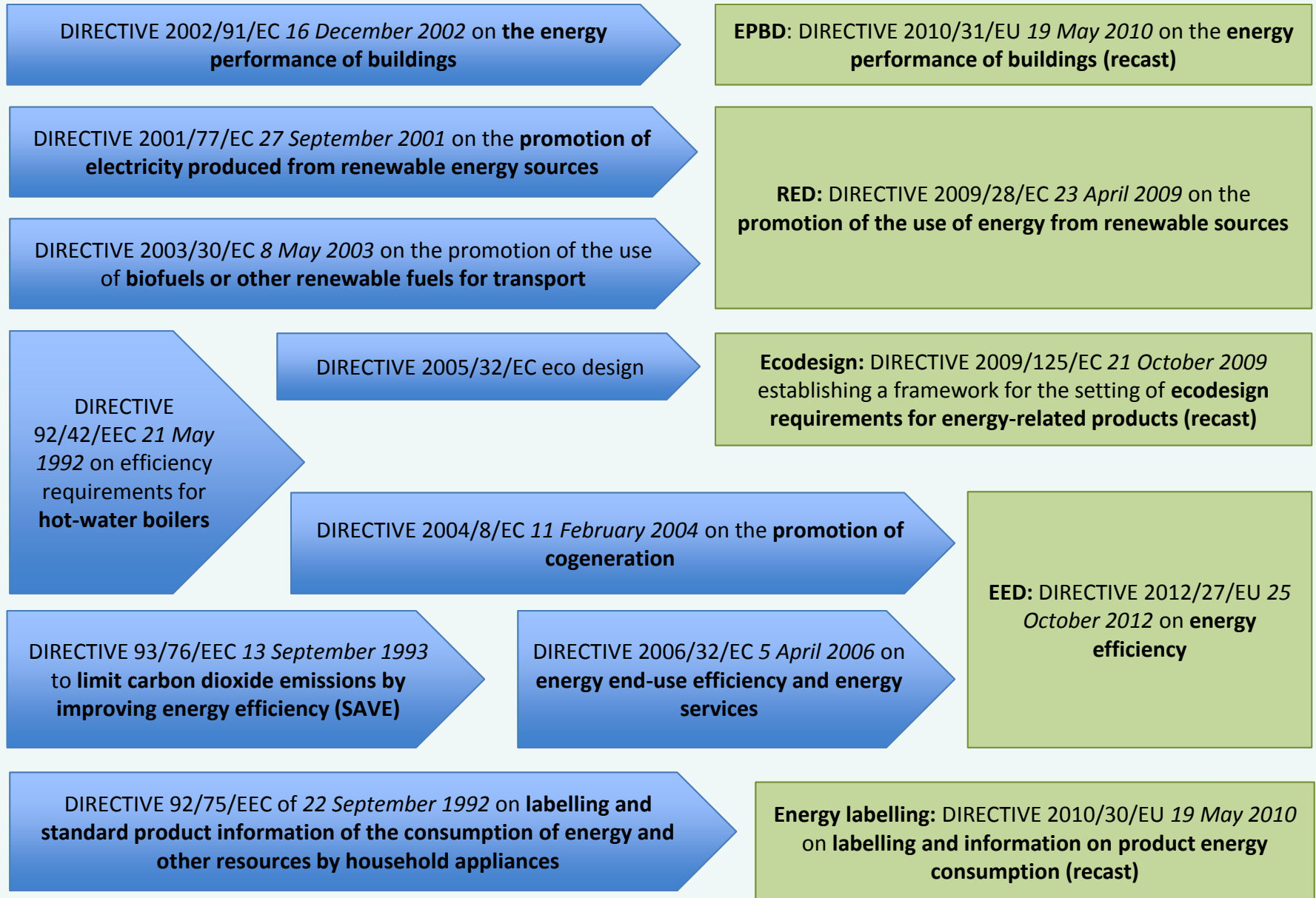


Increased purchasing power



Reducing CO2

Legislative Context



Article 4, Energy Efficiency Directive

Member States shall establish a **long-term strategy** for **mobilising investment** in the **renovation of the national stock of residential and commercial buildings, both public and private**. This strategy shall encompass:

- An **overview of the national building** stock based, as appropriate, on statistical sampling;
- Identification of **cost-effective approaches to renovations** relevant to the building type and climatic zone;
- **Policies and measures to stimulate cost-effective deep renovations** of buildings, including staged deep renovations;
- A **forward-looking perspective to guide investment decisions** of individuals, the construction industry and financial institutions;
- An **evidence-based estimate of expected energy savings and wider benefits**.

A first version of the strategy shall be published by 30 April 2014 and updated every three years thereafter.

Available Guidance



Joint Working Group of CA EED, CA EPBD and CA RES

Assistance Documents for EU Member States in developing long term strategies for mobilising investment in building energy renovation

(per EU Energy Efficiency Directive Article 4)

COMPOSITE DOCUMENT

(Main Document plus Annexes)

This set of documents has been developed by a Joint Working Group drawn from three EU 'Concentrated Action' projects (EPBD, EED and RES) under the Intelligent Energy for Europe programme. It has been prepared as a resource to encourage and assist Member State authorities. However, it has a voluntary status and any views expressed herein are not to be attributed to the EU Commission or to any national or EU institutional party.

It contains active hyperlinks. It will greatly assist navigation through this document in PDF if you include 'Previous View' and 'Next View' buttons in your toolbar. Depending on the version of Adobe Acrobat, you can do this by a menu sequence of 'View > Show/Hide > Toolbar Items > Page Navigation' and tick the 'Previous View' and 'Next View' options.

November 2013



Brussels, 22.5.2013
SWD(2013) 180 final

COMMISSION STAFF WORKING DOCUMENT
Guidance for National Energy Efficiency Action Plans

Accompanying the document

COMMISSION IMPLEMENTING DECISION

establishing a template for National Energy Efficiency Action Plans under Directive 2012/27/EU of the European Parliament and the Council

{C(2013) 2882 final}







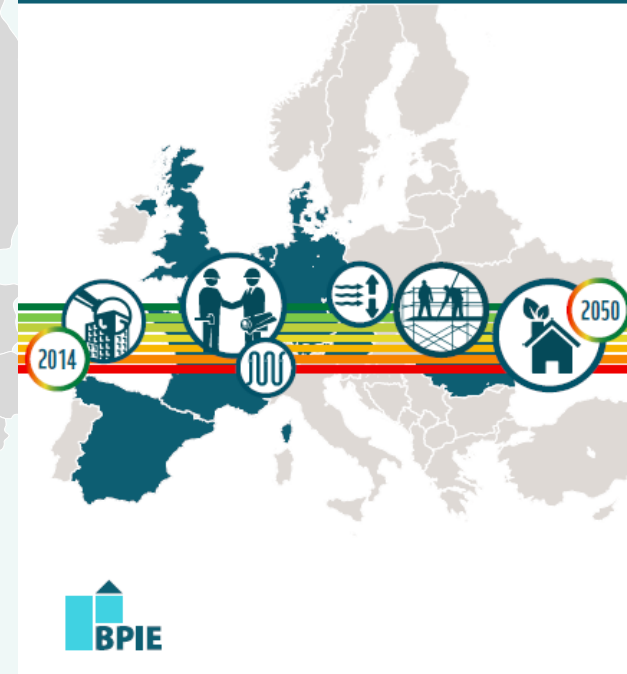
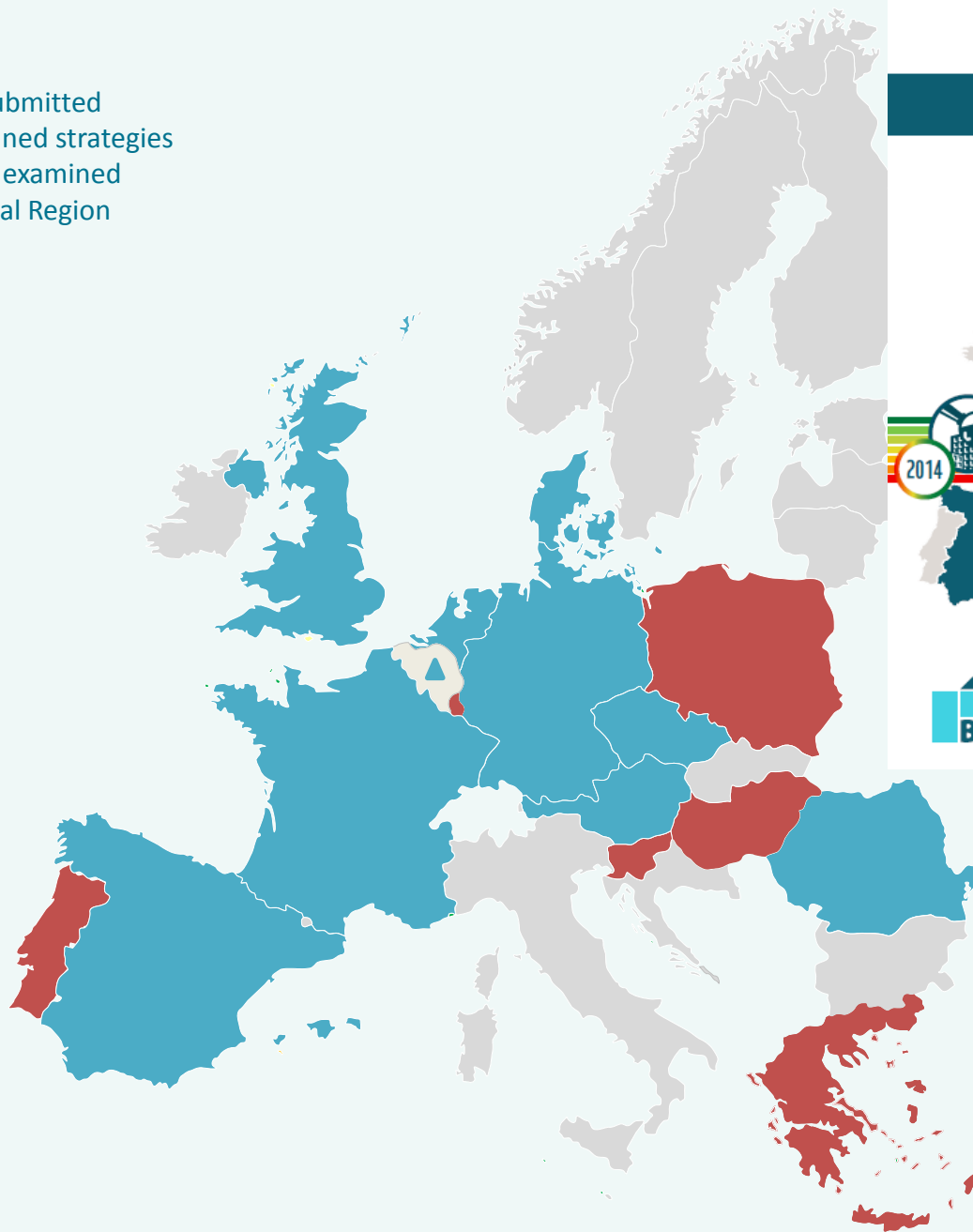
Renovation Roadmaps for Buildings

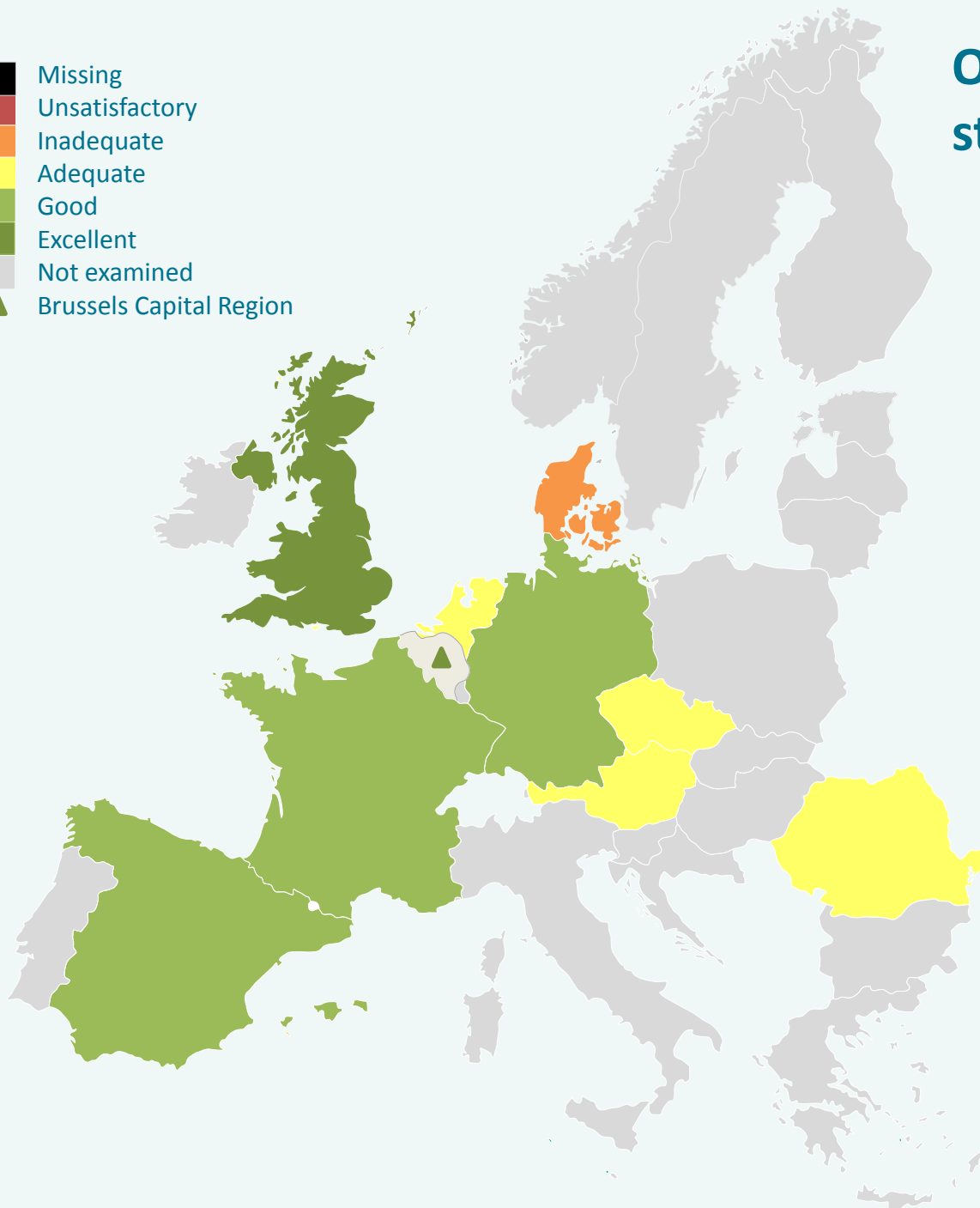


RENOVATION STRATEGIES OF SELECTED EU COUNTRIES

A STATUS REPORT ON COMPLIANCE WITH ARTICLE 4
OF THE ENERGY EFFICIENCY DIRECTIVE

-  No strategy submitted
-  The ten examined strategies
-  Countries not examined
-  Brussels Capital Region





Overview of the building stock

- ✓ Highest overall scoring section
- ✓ Excellent performance for: **UK and Brussels Capital Region:** detailed and comprehensive analysis of buildings

Identification of cost-effective approaches to renovation



- ✓ **Brussels Capital Region:**
Very good insight especially at the level of individual buildings
- Netherlands and Denmark did not address well, or at all

Policies to stimulate cost-effective renovation



- ✓ **Czech Republic, Denmark, France and Romania:** comprehensive overview of policy options and packaged approach.

Denmark's approach is the most persuasive with clear commitments to action.



Forward-looking perspective to guide investment decisions

- Across all strategies, this was the weakest section.
- Not addressed by **Denmark** or **Austria**
- ✓ **Czech Republic, Romania** and **Spain** presented modelled scenarios for renovation

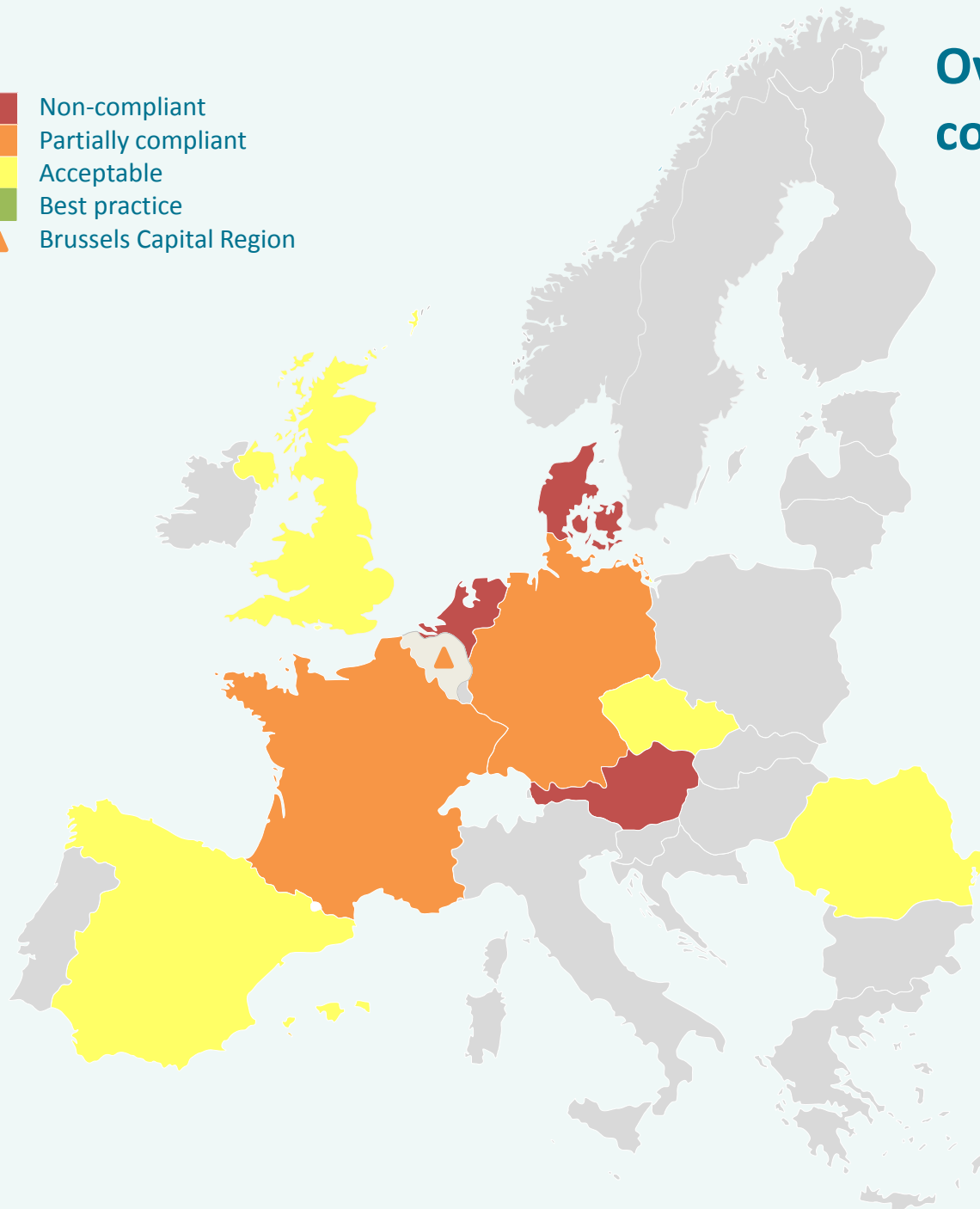
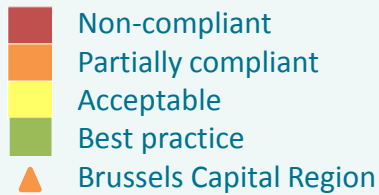




Estimate of expected energy savings and wider benefits

- Assessment of wider benefits was generally poor.
- ✓ Only **Romania** monetised benefits by recognising their value.
- ✓ **Czech Republic** - implementing the strategy creates 35 000 jobs; GDP increases by 1%

Overall level of compliance with Article 4



Overall, strategies do not set a clear, strategic path for the renovation of national building stocks.

N.B. No strategies were considered “best practice”.

Carbon Reduction Targets



The following Member States set their renovation strategies in the context of wider long term ambitions to cut carbon dioxide and greenhouse gas emissions:



Denmark



France



Netherlands



Germany



UK

Assessing ambition levels

Germany relies mostly on the Energy Saving Ordinance (for 2/3 of its projected savings)

Romania, Czech Republic and Denmark presented a holistic approach with more than 15 individual measures

In **France**, a Presidential-level commitment was made to renovate 500.000 dwellings/yr

Brussels Capital Region focuses on regulatory measures within PACE

The Netherlands aims to address barriers and foster innovative approaches

The **UK** relies on policies already in place

N.B. Overall ambition levels are quite low

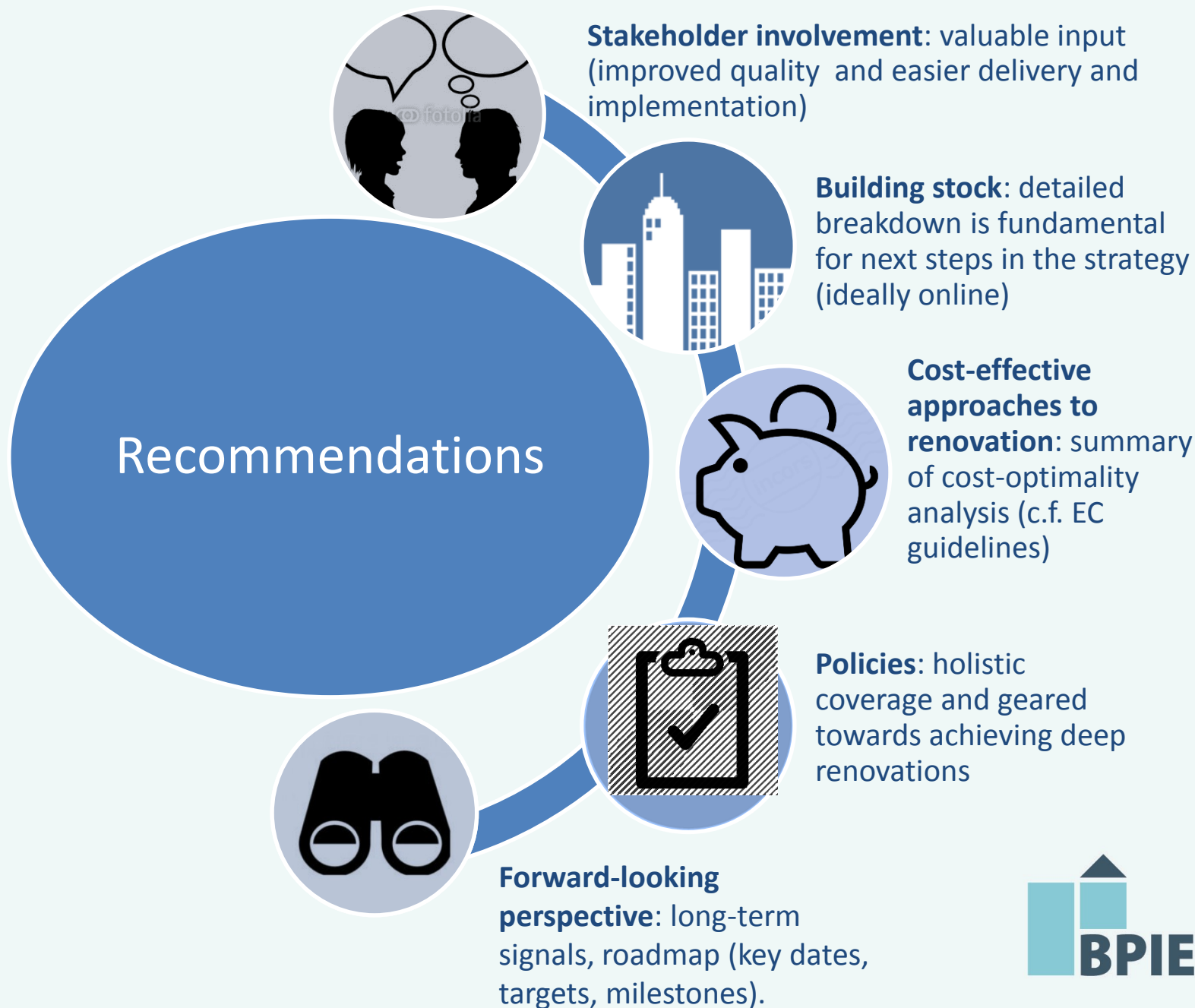


Examples of nZEB Renovation in the Strategies

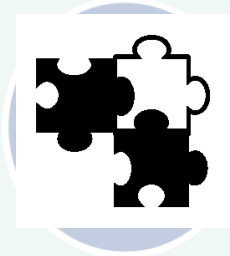
- Very few mentions of nZEB renovation in the strategies.
- Best example is Energiesprong (energy jump) in The Netherlands
- Already refurbishing existing low income buildings to net zero energy, within a week, with a 30-year builders' guarantee and no subsidies.
- Plan to do 111,000 homes by 2020

What have we learned?

- Despite the multiple co-benefits, energy renovation of building not afforded much political importance or recognition
- Forward perspective weakest area – what steps will governments actually take?
- No linkage to the nZEB requirements in EPBD



Recommendations



Recognition of building market dynamics, adapted to needs, desires and motivations of building owners.



Quantification of benefits (economic impact, societal benefits and environmental improvements)



Healthy buildings: daylight, ventilation and good IAQ for well-being of occupants



Implementation and enforcement of strategies at MS and EU level to ensure practical achievement



Ongoing review and revision: update and resubmission every 3 years



ALLEVIATING FUEL POVERTY IN THE EU

Investing in home renovation, a sustainable and inclusive solution

July 2014



Europe 2020 targets & challenges

Europe 2020 targets

Reduce by 25% (20 million) the number living below national poverty lines.

Increase employment rate from 69% to 75%.

Challenges

In 2012, 124 million people were at risk of poverty & at least 50 million under fuel poverty.

The European population is ageing, increasing the number of vulnerable people.

Between 2010-2012 the employment rate remained stagnant (68.4%).

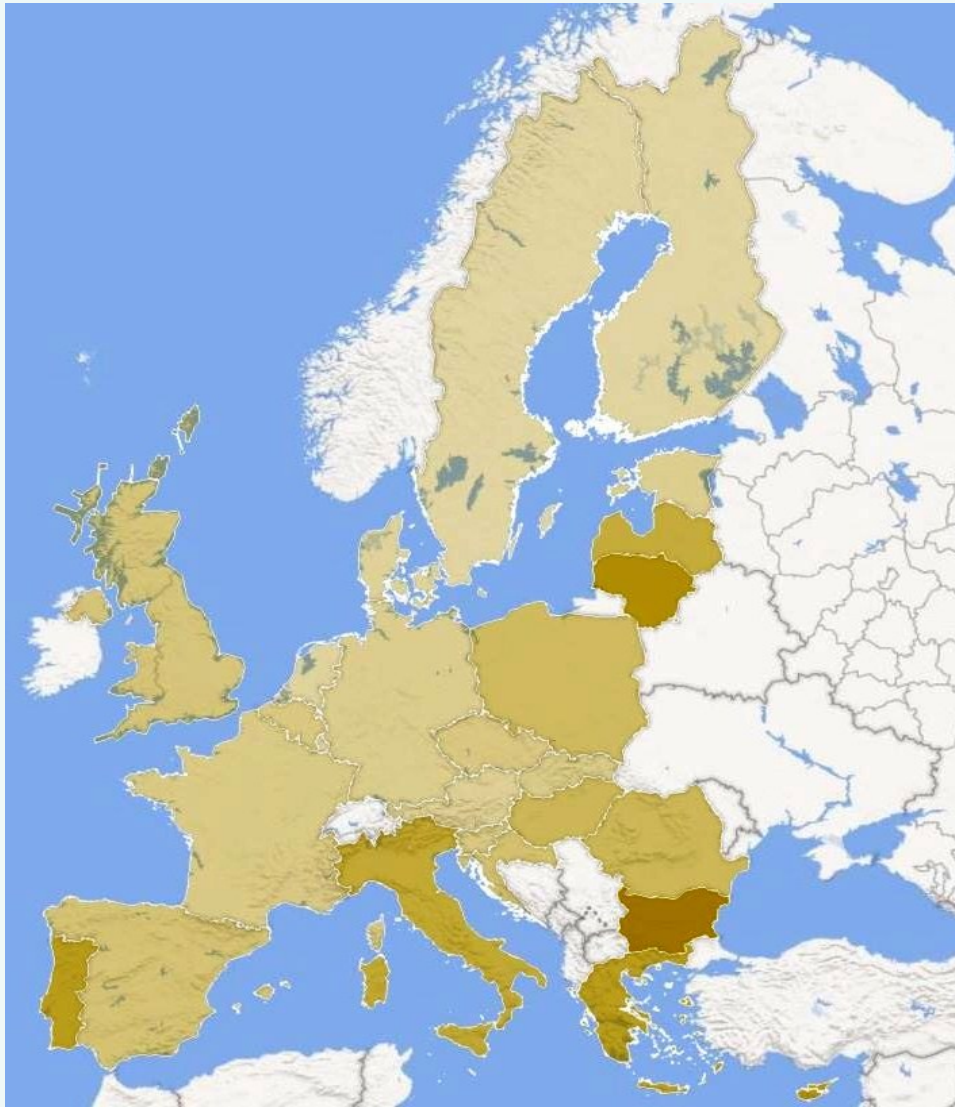
The primary energy consumption needs to be further reduced by 6.3% to meet the 2020 target.

Fuel poverty

Combating fuel poverty by implementing energy efficiency measures delivers:

- Avoided illnesses.
- Higher indoor thermal comfort.
- Job creation.
- Social inclusion.
- Reduced energy costs.
- Reduced CO₂ emissions.

Inability to keep home adequately warm in the EU (2012)



- **Bulgaria** (46.5%) and **Lithuania** (34.1%) have highest rates of people who are not able to keep their homes adequately warm, followed by **Cyprus** (30.7%), **Portugal** (27%) and **Greece** (26.1%).
- In colder Northern countries the percentages are low: **Sweden** (1.4%), **Finland** (1.5%), the Netherlands (2.2%) and **Denmark** (2.6%).



Analysing solutions

Causes of fuel
poverty

Solution

Low household
income

Income increase / Income support schemes

Cost of energy

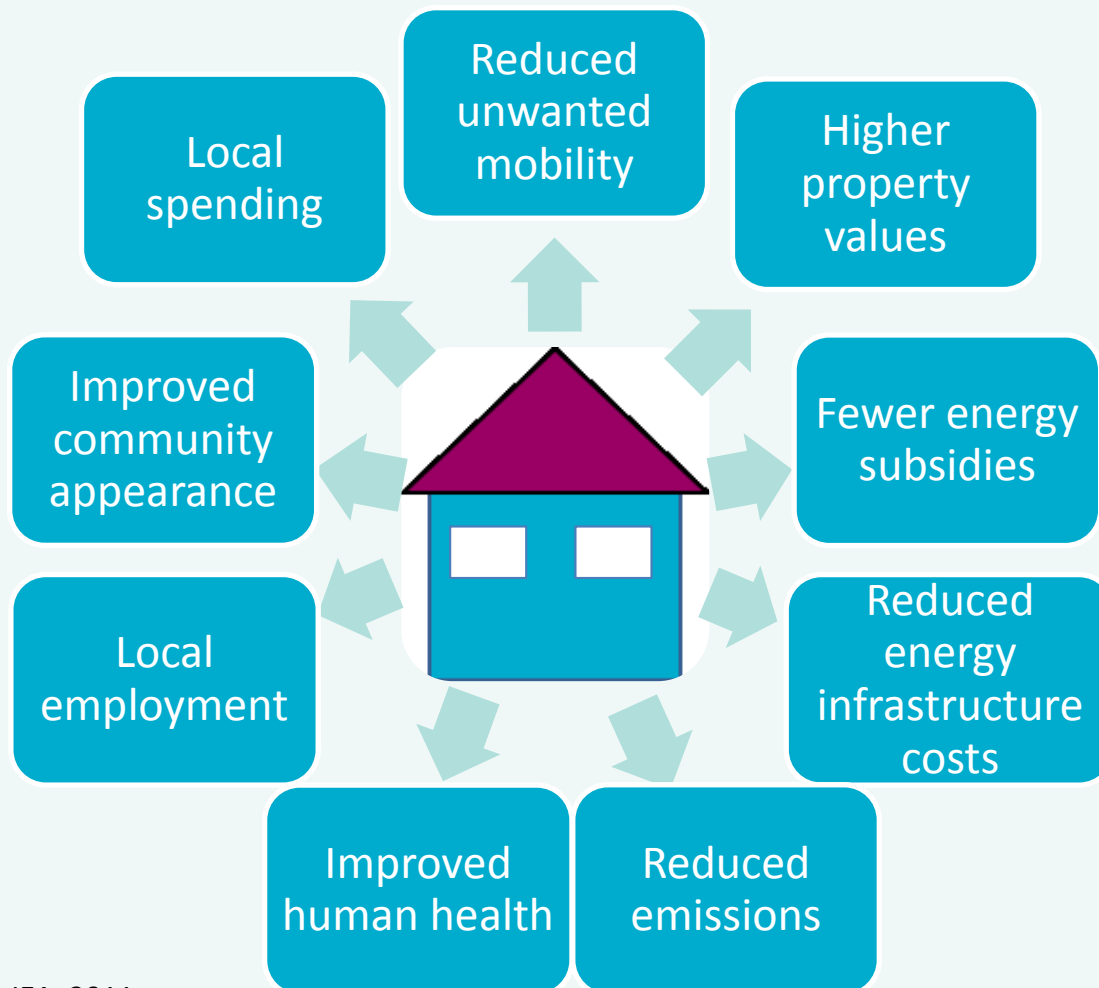
Fuel prices regulation / Fuel subsidies

Low energy
efficiency of the
property

Deep energy retrofits in dwellings

Deep energy retrofits in fuel poor homes

The only sustainable way to address the cause of fuel poverty



Source: IEA, 2011

EU cohesion funds and energy efficiency measures

Energy efficiency in buildings can be supported by all three Cohesion Policy financial instruments.

- €23 billion from ERDF to be used for low carbon schemes.
- 20% of the ESF (€16 billion) should be used to support social inclusion and creation of new jobs in environment/energy sectors.
- Part of the €63.4 billion Cohesion Fund now available to support energy efficiency and renewable energy investments in housing

Conclusions

Between 50 and 125 million people, cannot afford having a comfortable indoor environment.

Many MS recognise the fuel poverty problem, even though there is no single definition.

Social tariffs and heating subsidies address only partially the problem.

Energy performance improvement is THE sustainable solutions that addresses the root problem.

Policy recommendations (1)

Dedicated national programmes addressing fuel poverty

Top priority at national levels, shifting price control mechanisms and fuel subsidies to more active and effective public expenditure on renovation measures

A higher allocation of EU Funds to renovation programmes targeting fuel poor, low-income and vulnerable categories of people

Policy recommendations (2)

Need for a long-term strategy for fuel poverty alleviation in the EU

A more accurate definition of societal groups that cannot afford sufficient energy to satisfy their basic needs

Improvement of statistical data collection by providing more evidence on the scale and impact of fuel poverty in the EU



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