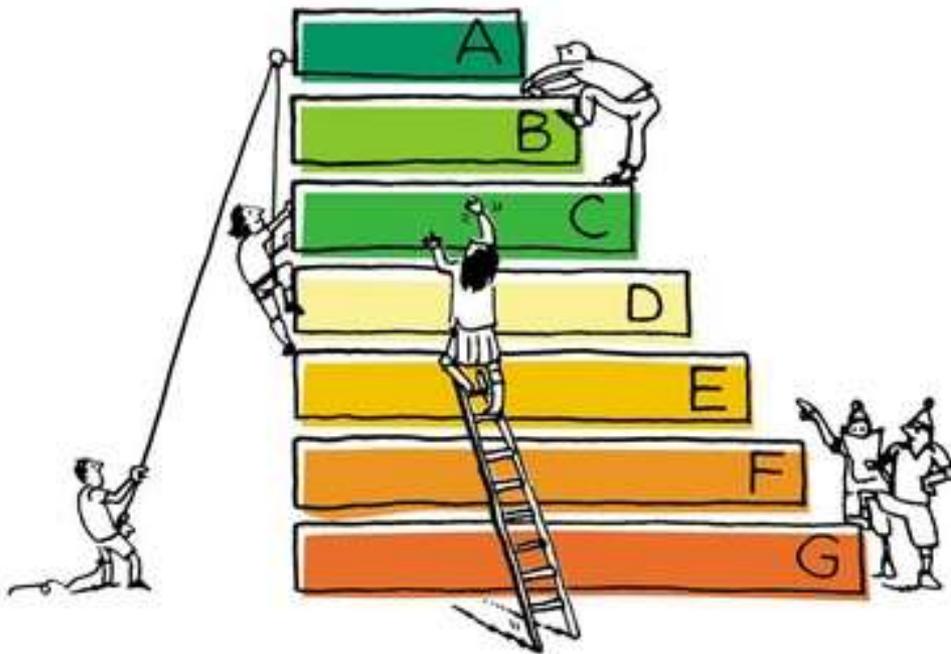


Transforming Energy Performance Certificates to Buildings Renovation Passports for energy poverty alleviation

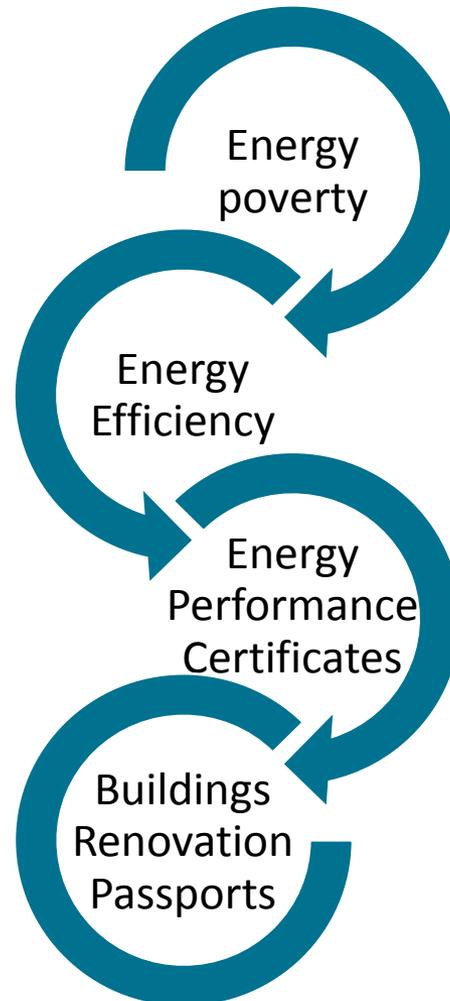
Eleni Kontonasiou

Researcher

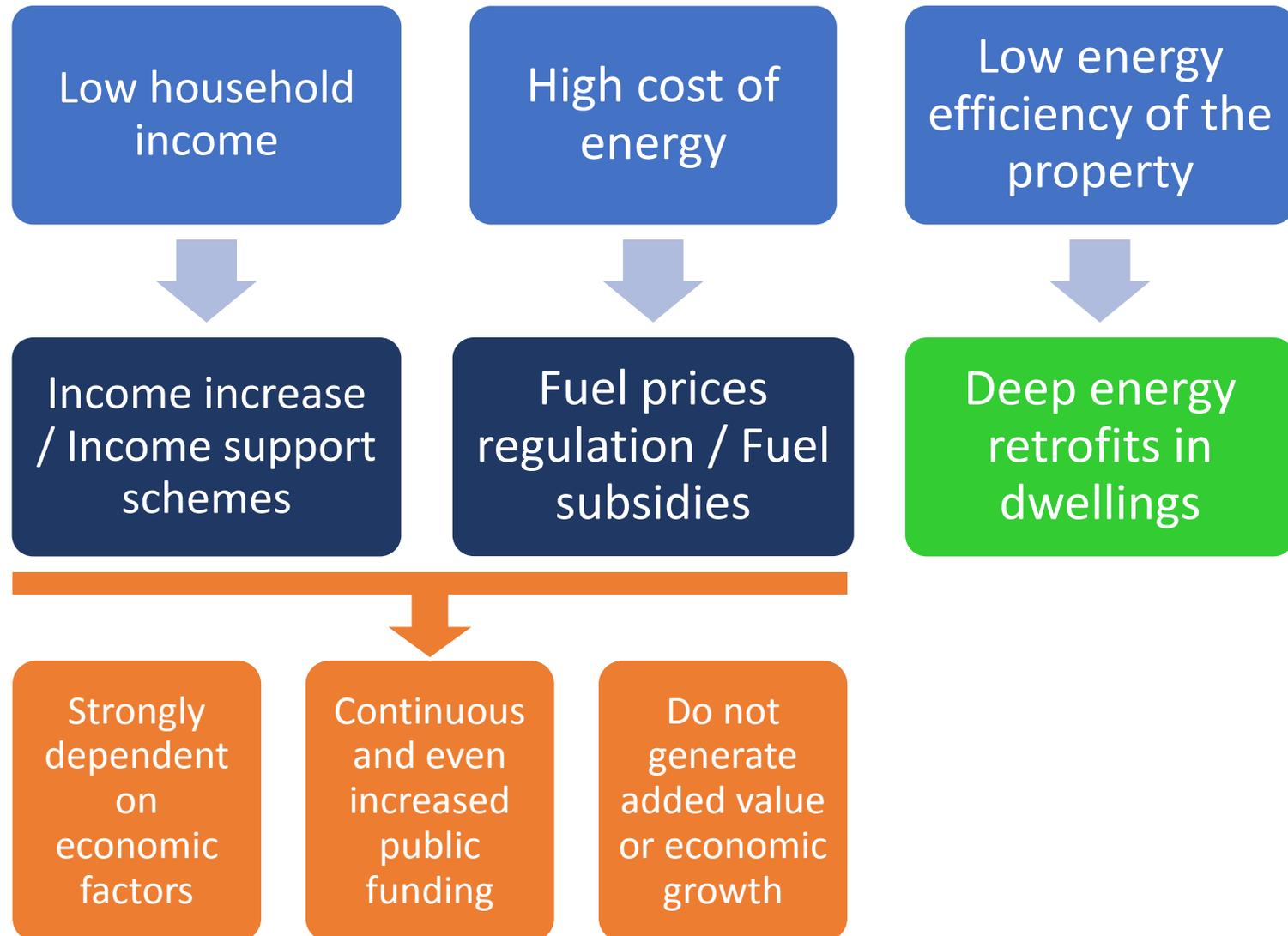
Buildings Performance Institute Europe



Introduction



Energy Poverty - Analysing solutions



Interesting approaches (in England)

The fuel poverty target is to ensure that as many fuel poor homes as is reasonably practicable achieve a **minimum energy efficiency rating of Band C**, by 2030.

Doctors prescribing boilers (£3 million funding): Davey said: “Talking to GPs and other health professionals, they get frankly fed up when they’re just dealing with the symptoms and not the root causes... I want to deal with the root causes.” (Ed Davey, Energy Secretary)

From April 2016, residential private landlords **will not be able to unreasonably refuse** consent to a tenant’s request for EE improvements.

From April 2018, private domestic and non-domestic landlords will need to ensure that **their properties reach at least an E EPC** rating.

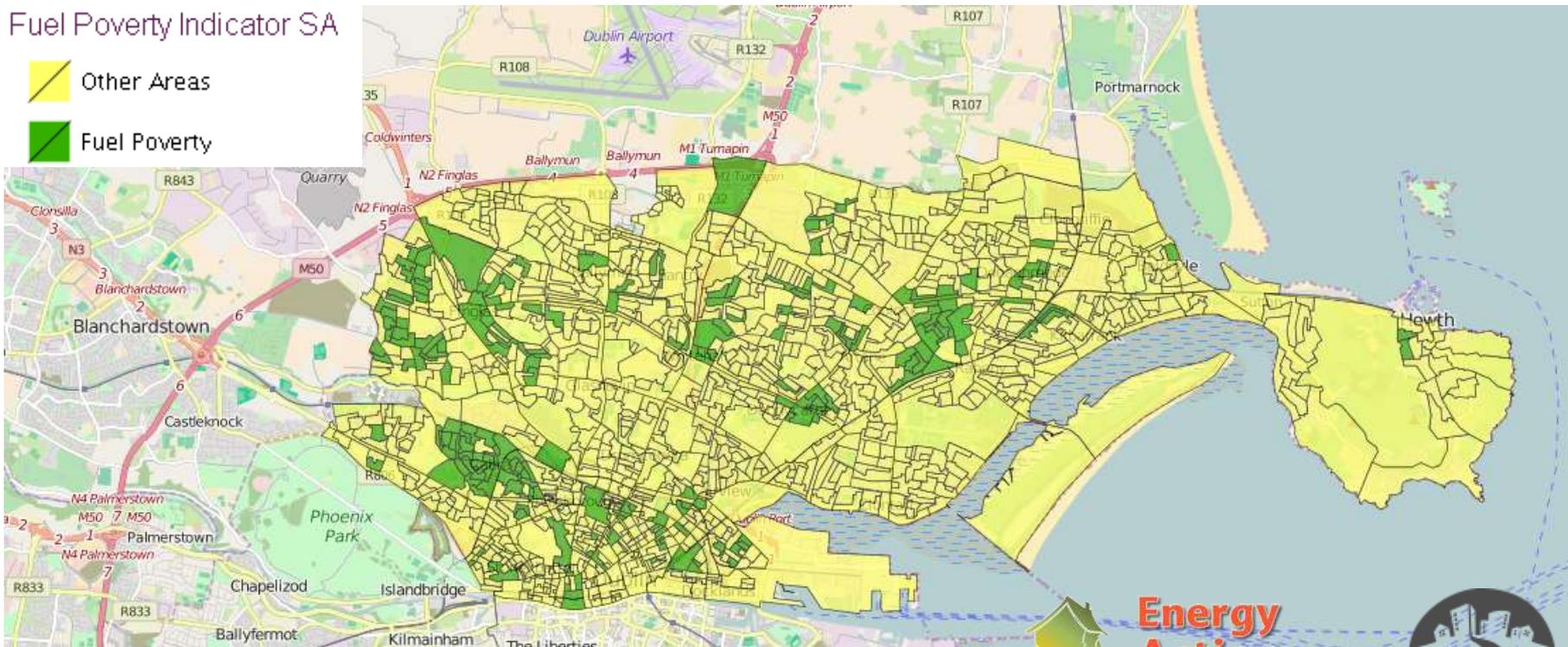
Mapping fuel poverty in Ireland - EPCs for strategic energy planning



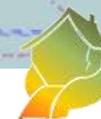
- 🏠 Online dynamic fuel poverty map of Dublin based on EPC database
- 🏠 Fuel Poverty indicator based on Building Energy Rating and a Deprivation score

Fuel Poverty Indicator SA

- 🟡 Other Areas
- 🟢 Fuel Poverty



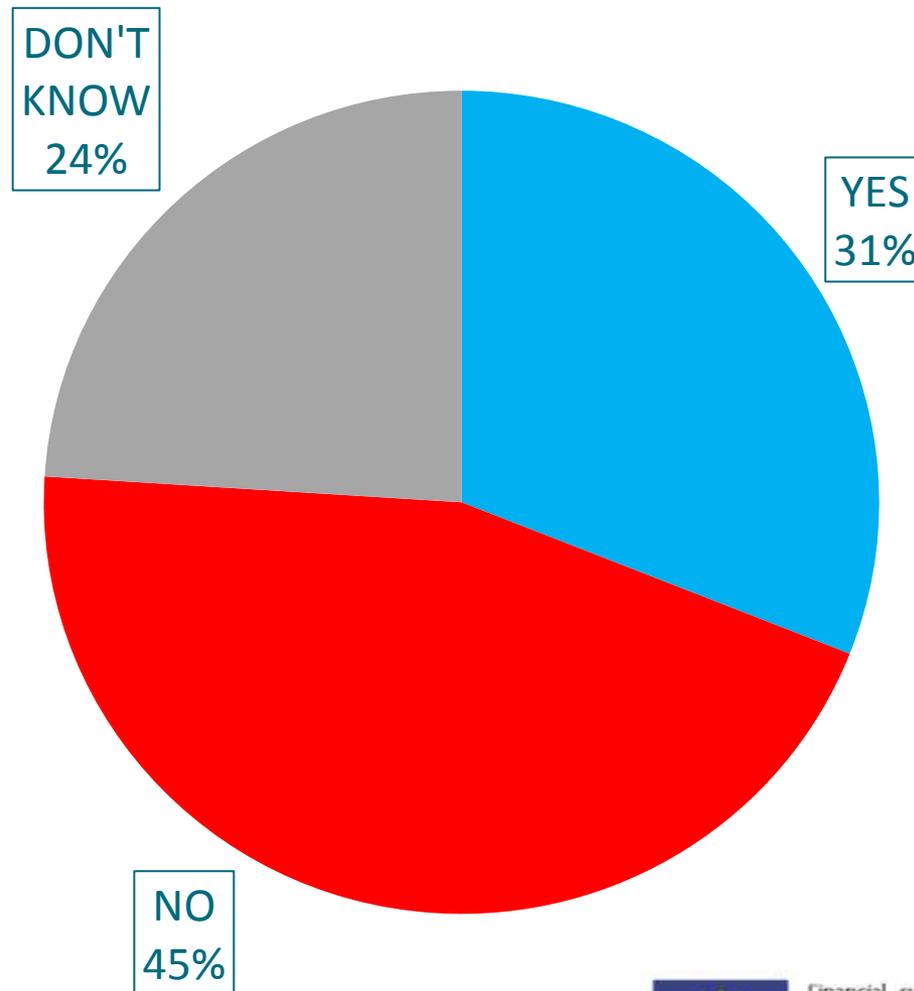
<http://energyaction-static.s3-website-eu-west-1.amazonaws.com/index.html>



Energy Action
THE WARM CHARITY



Do you think there is a link between EPC's and the improvement of the EE of buildings?



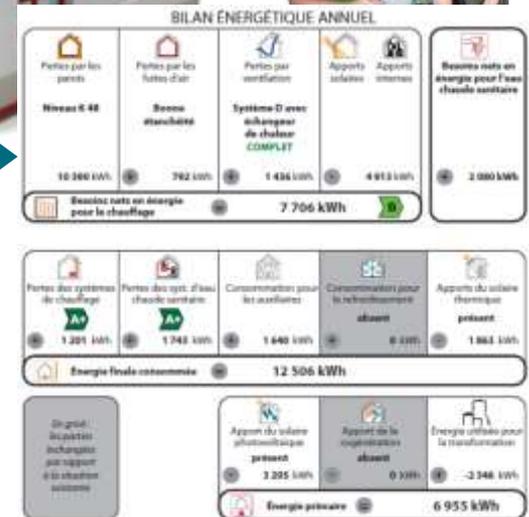
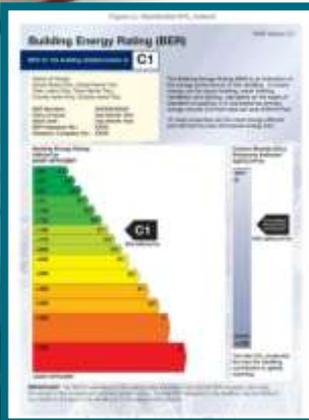
ENERGY PERFORMANCE CERTIFICATE

- Informs potential buyers/tenants on the buildings' energy performance

**FOR
RENT - SALE**

BUILDING RENOVATION ROADMAP

- Guides (new) owners with a personalised step-by-step renovation roadmap



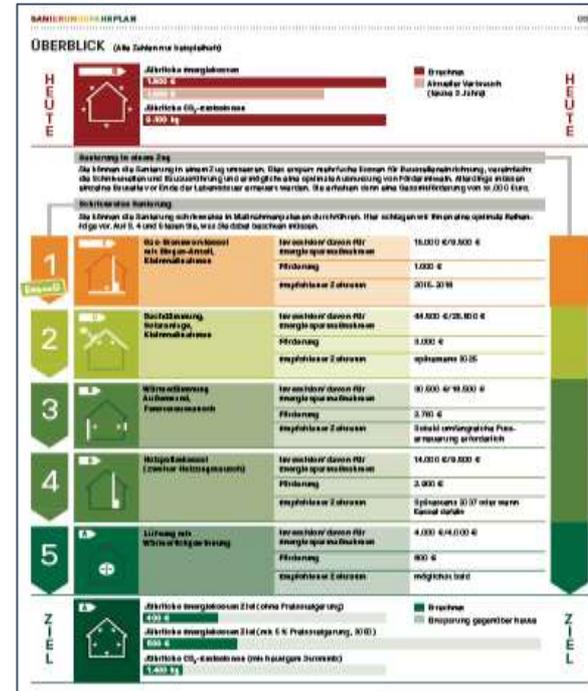
DEEP AND QUALITATIVE RENOVATION

HOLISTIC RENOVATION PROCESS

BUILDING RENOVATION ROADMAP



Source: Energiesprong



Source: ifeu

Common barriers

Building owner lacks information

- What to do, where to start, and which measures to implement in which order?

Renovation perceived as a burden

- Time, money and dust

Insufficient training for auditors beyond technical aspects

- How to convince to start renovation after the audit?

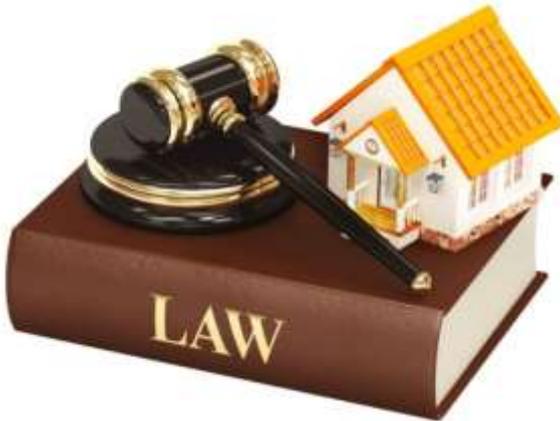
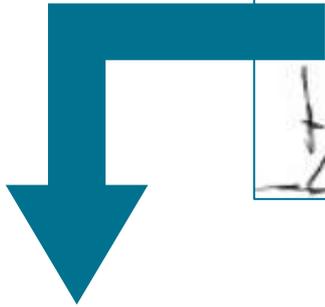
Limited financial resources

- Upfront costing

Complex legislation and 'stop and go' support measures



Policy tools to improve energy performance



BUILDING RENOVATION PASSPORT

What is a Building Renovation Passport?



RENOVATION ROADMAP

- Step-by-step guidance
- Resulting from an on-site energy audit
- Long-term: 15 to 20 years
- Considers individual context

LOGBOOK

Repository of all building-related information

- Energy consumption
- Energy production
- Executed maintenance
- Construction plan
- ...

INFORMATION ON INDIVIDUAL BUILDING LEVEL

EXISTING EPC

ON-SITE GATHERED INFORMATION

- Energy audit
- Building professionals, e.g. construction plan, info installations, BIM, etc.
- Building owner or tenant
- Public authorities

AUTOMATED DATA

- Smart meters
- Monitoring systems, e.g. RES, heating, CO₂ meters, etc.

BUILDING RENOVATION PASSPORT

RENOVATION ROADMAP

- Systematic renovation in a sensible order and packages
- Comprehensive audit
- Long-term perspective
- Considers individual context

LOGBOOK

- Inventory of non-dynamic information
- Manage and monitor real time energy consumption
- Linking building owners (users) and third parties, e.g. public authorities, market place, etc.

Key elements and common trends (DE, FR, BE-FL)



Voluntary tool

Political support

Stakeholder engagement

On-site audits

Training for the auditors

Dialogue with building owners

Logbook

New Horizon 2020-project: iBRoad

	Starting concepts	Test run concept & tools	Stakeholder involvement & promotion
Austria			✓
Belgium - FL	✓		✓
Bulgaria		✓	✓
France	✓		
Germany	✓	✓	✓
Greece			✓
Poland		✓	✓
Portugal		✓	✓
Sweden			✓

- Starts in June 2017
- Develop, test and demonstrate the full concept of iBROAD in pilot countries
 - methodology for energy audits
 - database structure
 - interfaces and modules
- Feasibility and replicability analyses to other building typologies and countries



Thank you...

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