

Overview of critical aspects to consider







## **Objectives**

- Key challenges & enablers of a successful design & implementation of iBRoad that will enable the replication of the concept
- Guiding steps to a feasibility study for countries interested in implementing the iBRoad concept

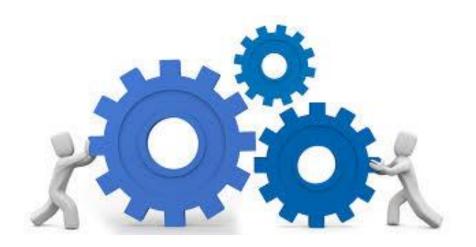






## Critical aspects to design & implementation

- Economic viability
- Technical feasibility
- Legal feasibility
- Human-related restrictions







## **Economic viability**

How to finance the preparation, design, development, implementation, operational, maintenance and evaluation stages?

How much are building owners willing to pay for an instrument such as the iBRoad? Subsidizing the development cost might be required

The business case for energy auditors should include the costs of training, audits, registrations and the use or purchase of calculation/simulation software programs and tools





## Technical feasibility

# 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





## Legal & regulatory feasibility

#### Local adaptation

- National legislation to be adapted to facilitate the uptake of the iBRoad concept
- Mandatory and voluntary implementation should be explored

### Data privacy & availability of resources

- Logbook contains: legal, administrative, technical operational aspects: GDPR protected
- Confidentiality, integrity, availability of logbook database



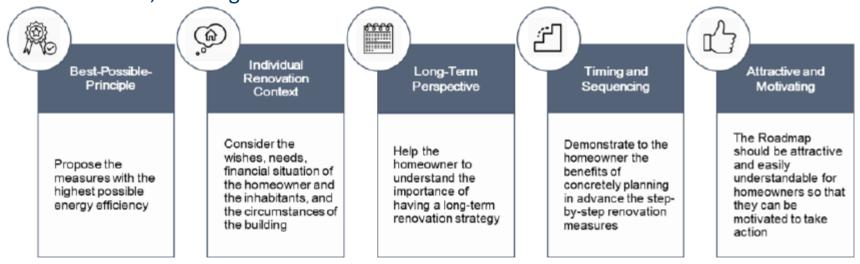




### Human-related restrictions

#### Human-oriented training of experts

 Comprehensive training, technical knowledge but also soft skills to enable communication with clients, building owners



#### User-friendliness of the tool

- Goes beyond easy to use, covers insight from end-users needs & expectations
   Language restrictions
- Non-technical language to be adapted by countries replicating iBRoad concept
- To maximise engagement potential, promote the iBRoad





## Feasibility of the iBRoad concept in the EU

- 1. Concept initiation
- 2. Preliminary analysis
- 3. End-user needs & stakeholder engagement
- 4. Comparison & integration with relevant existing tools
- 5. Financial aspects
- 6. Impact assessment







### 1. Concept initiation

### **Public authorities:**

Link the tools with other public instruments

### Private actors:

Expertise in creating a competitive product



#### Combination of both:

Establish clear governance rules incl. monitoring & evaluation mechanisms





### 2. Preliminary analysis

Define scope

Market analysis

Enabling policies





### 3. End-user needs and stakeholder engagement

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement №754045



#### End-user needs:

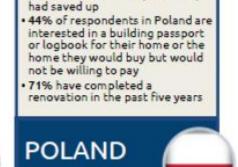
Enables more effective design of the individual buildings

To finance the renovation, 84%

planned to use money that they

- 83% of respondents think they can reduce their household's energy consumption through renovation measures
  - 92% thinks that energy efficiency will be an important aspect when deciding to purchase a home
  - Only 9% would trust the Energy Performance Certificate for advice about potential renovation measures

**BULGARIA** 



- 51% are more concerned about having a warm and comfortable home than saving energy
- 47% would go to the Energy Performance Certificate for advice about renovation measures
- 49% think that potential buyers should be allowed to access the logbook with all relevant information about the building



### Stakeholder input:

Stakeholder dialogues at several phases: design, implementation & evaluation





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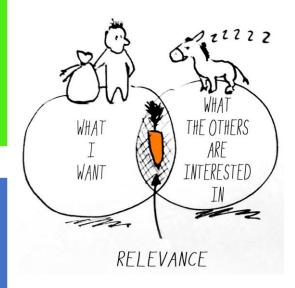
### 4. Comparison and integration with relevant existing tools

Flanders, Belgium (Woningpas and EPC+)

Denmark (BetterHome)

France (Passeport Efficacité Énergétique)

Germany (Individueller Sanierungsfahrplan)







### 5. Financial aspects

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Development



Execution



Renovation works

Public financing

Private financing





Economic Capacity building

**Environmental** 

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