

Understanding the concept of Building Renovation Passports

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Our main challenge: Renovation of existing building stock





Need to scale up energy renovation across Europe to meet Paris Commitment

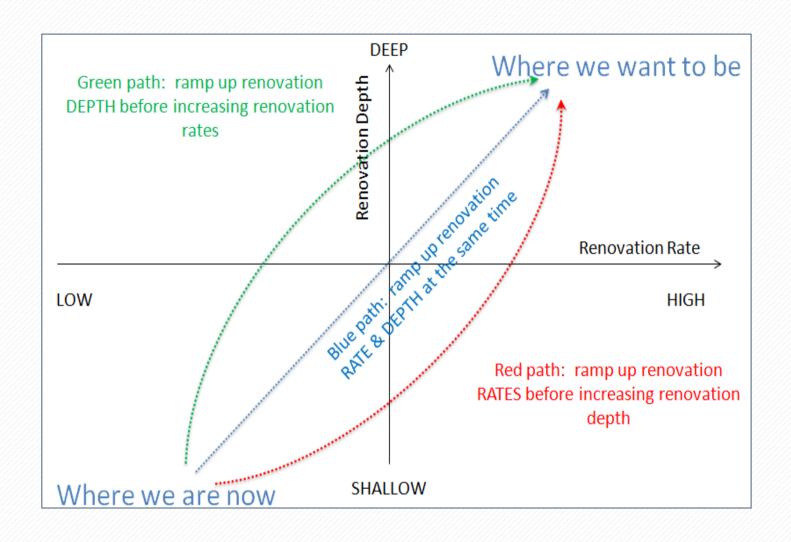
Today fragmented renovation & lock-in effect

EPCs not driver for renovation

Interest in renovation roadmaps/passport across Europe (several pilots)



Choosing the renovation path





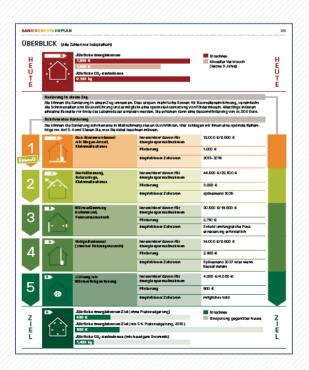
How to avoid lock-in effect and build future proof?

RENOVATION

HOLISTIC DEEP RENOVATION

STAGED DEEP RENOVATION







What is a Building Renovation Passport?



Building Renovation Passport potential tool to deliver (staged) deep renovation

Three case studies: Belgium(Flanders), France and Germany



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.

Case studies: Flanders (Belgium), France, Germany

- Voluntary tool (complementary to EPC) link to EPBD?
- Ambition: long term renovation targets (deep renovation or long term efficiency levels)
- On-site energy audit as first step
- Open dialogue with building owners: building owners are at the centre of the process (customised measures)
- A new way to measure comfort (qualitative element)

Common guiding principles



Long-term perspective

 Vision for building stock 2050, definition of deep renovation or energy efficiency levels required

Timing and sequencing of actions

• Short-term and long-term measures included, order of implementation key to achieve deep renovation

Customer engagement and individual context

 Put the owner at the centre (wishes, needs, constraints)

User-friendly tool (for the auditors and the users)

- Make it easy to understand/use/promote
- Auditors as ambassador for deep renovation



Common guiding principles

Automation

• Easy to use for the energy experts (modular blocks, default values, highlights errors/anomalies, etc.)

Stakeholder engagement

 Go beyond the building sector (behavioural experts, data analysts, communication strategists)

Promote comfort as a driver for renovation

- Clearly indicate positive impacts on comfort
- Include indoor air quality, acoustics, lighting, daylight, fresh air supply among main indicators

Provide appropriate regulatory framework (EPBD)

 Long-term vision for EU building stock, link BRP to EPC, common approach to deep-staged renovation (including tools and methodological guidelines)

Belgium-Flanders: Concept Building Logbook





- ▶ Unique digital integral file of each dwelling
- ▶ Instrument for the building owner & buyer to get view on building aspects

Modular:

- Energy and Other building aspects e.g. spatial planning, heritage, water, soil, asbestos, flooding sensitivity, electricity, renewable energy, ...
- Information, data, certificates
- **Consultable** by the owner and authorised persons *e.g. occupants, architect, contractor, notary, expert, ...*
- ▶ **Digital Safe** for building information and performed works
- One-pager with certificates



Flanders: Roadmap for the Building Passport



v 0.1 Light:

- Integration of certificates
- Retrieving certificates
- · Inform the citizin and feedback

v 1.0 Full:

- Renovation advice & update
- Tailored grants and loans

v 3.0 :

- Integration smart meters, smart buildings
- Automatic Advice

v 0.2 Medium:

- Messages on duties
- Autorization
- · Dwelling quality: check-tool
- Upload supporting documents

v 2.0:

- All parties connected
- Reporting to policy





New Horizon 2020 project: iBRoad

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

- 2017-2020
- Develop, test and demonstrate the full concept of iBROAD in pilot countries
 - methodology for energy audits
 - database structure
 - interfaces and modules
- Feasibility and replicability





























Thank you...

Find the report at: http://bpie.eu/publication/renovation-passports/

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