

11:00 | Round table 1

Building renovation plans and passport



The consortium has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No. 101033819 as part of the call "LC-SC3-B4E-4-2020 – Next-generation of Energy Performance Assessment and Certification".

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Round table

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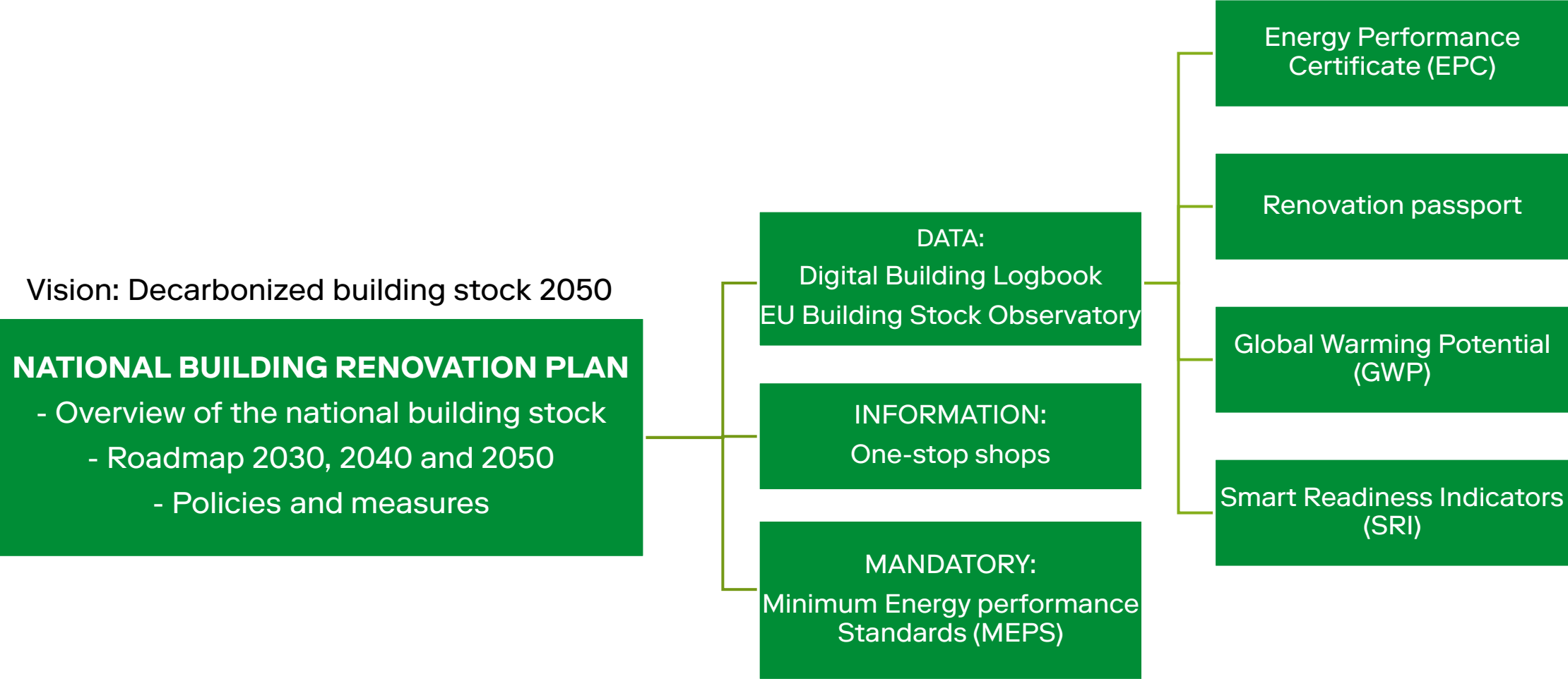
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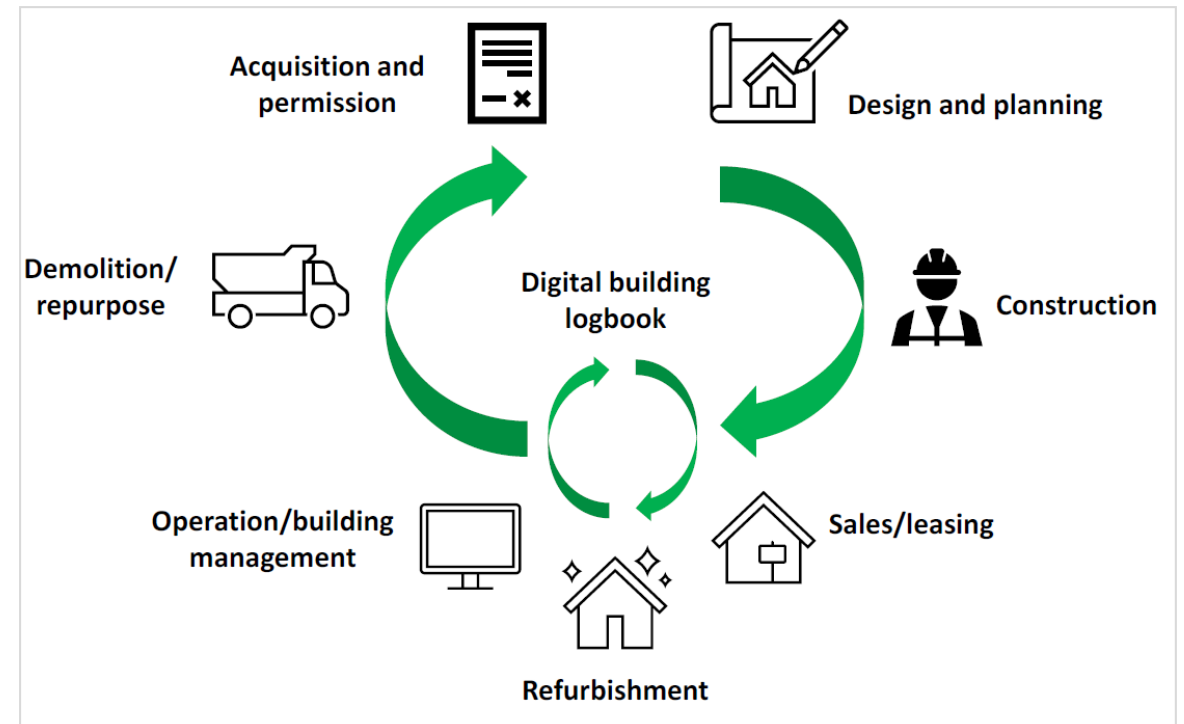
What role can data repositories play in the staged renovation of buildings?

Energy Performance of Buildings Directive (EPBD)



Relation between renovation passport and renovation plan

- Ideally, buildings are **refurbished in one go**; **alternatively**, they are refurbished **in stages**.
- Use of **EPC databases** for **decision-making** in **large-scale** renovation programs.
- **Up-to-date information** allows to monitor the transformation of the building stock.
- **Data repositories** can improve **data quality** and market acceptance to reduce data collection **effort and cost**.

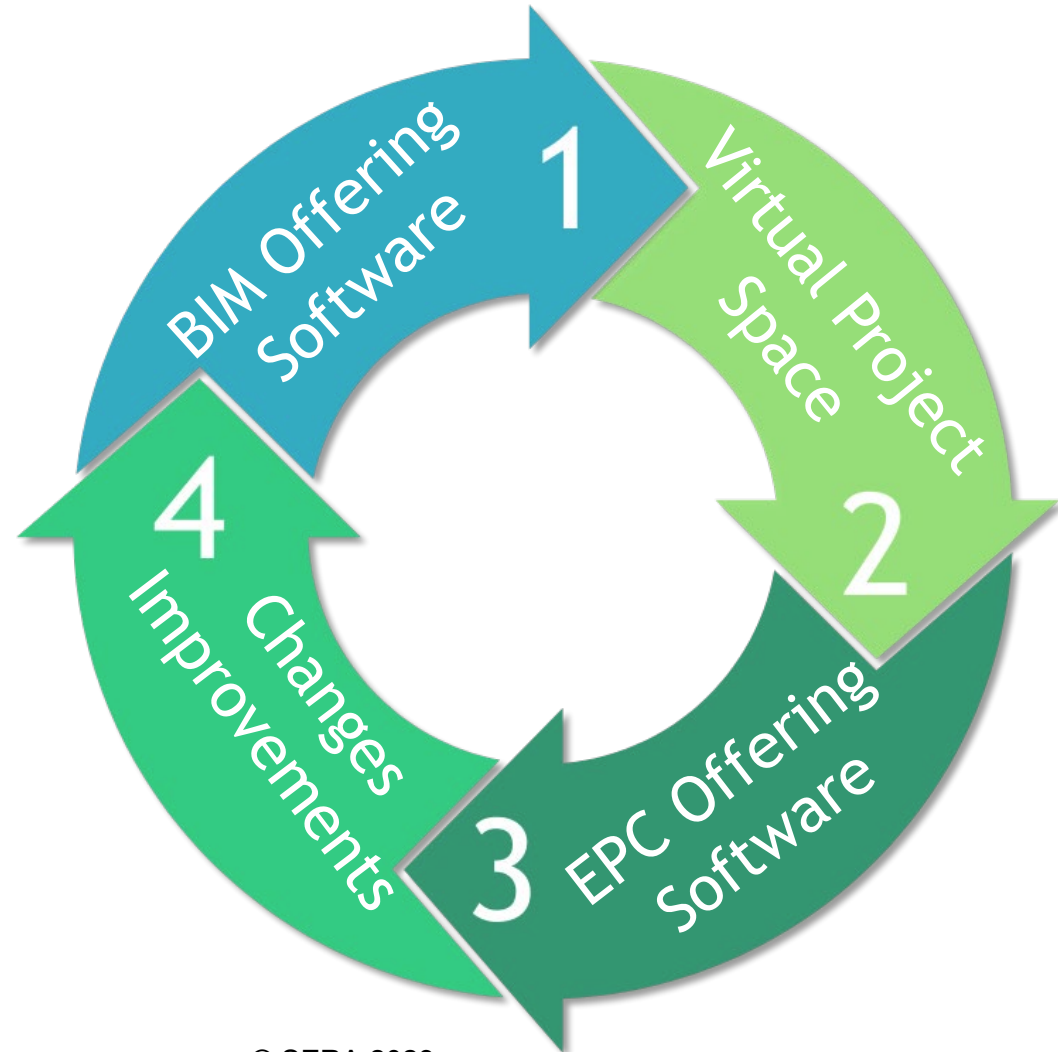


Source: [European commission](#). *Definition of the Digital Building Logbook*

How can we integrate EPC and BIM to enhance the Renovation Passport?

BIM workflow to generate the renovation passport and EPC

- Implementation of **changes** in the building model according to the **renovation roadmap** and the generation of a **new EPC**.
- The **BIM**-based workflow can be used as an independent method of **recording changes** to the building, independent of the EPC database.
- Follow-up the renovation of the building and **verification of the results achieved**.



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Data availability and quality

Data availability and quality are essential for reliable EPCs and effective renovation passports:

- **Create Renovation Passports** by integrating **EPC data with BIM models, energy audit reports** and other relevant data, including **operational data**.
- **Tracking** the implementation of renovation **measures**.

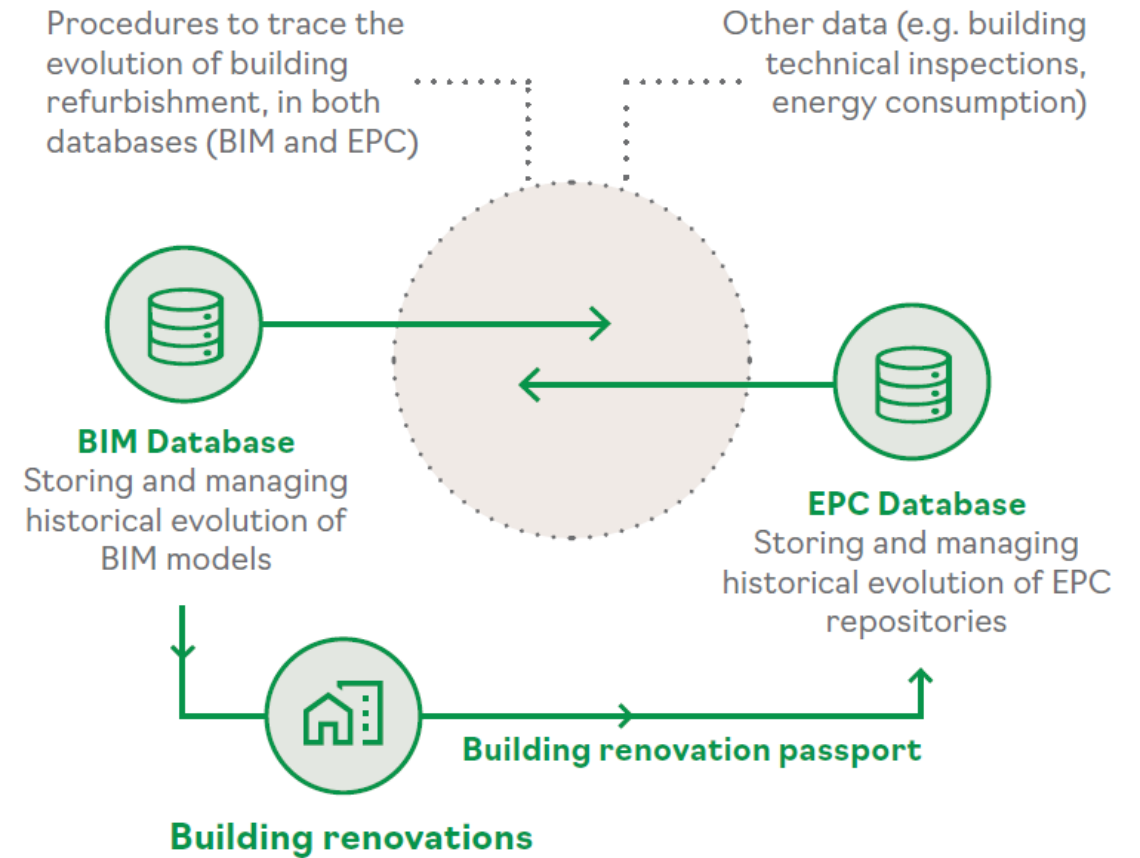


Figure 1: Overview of developing a Renovation Passport

Source: TIMEPAC factsheets <https://timepac.eu/resources/>

How can we optimise Renovation Passports?

Tailored renovation roadmaps for specific buildings

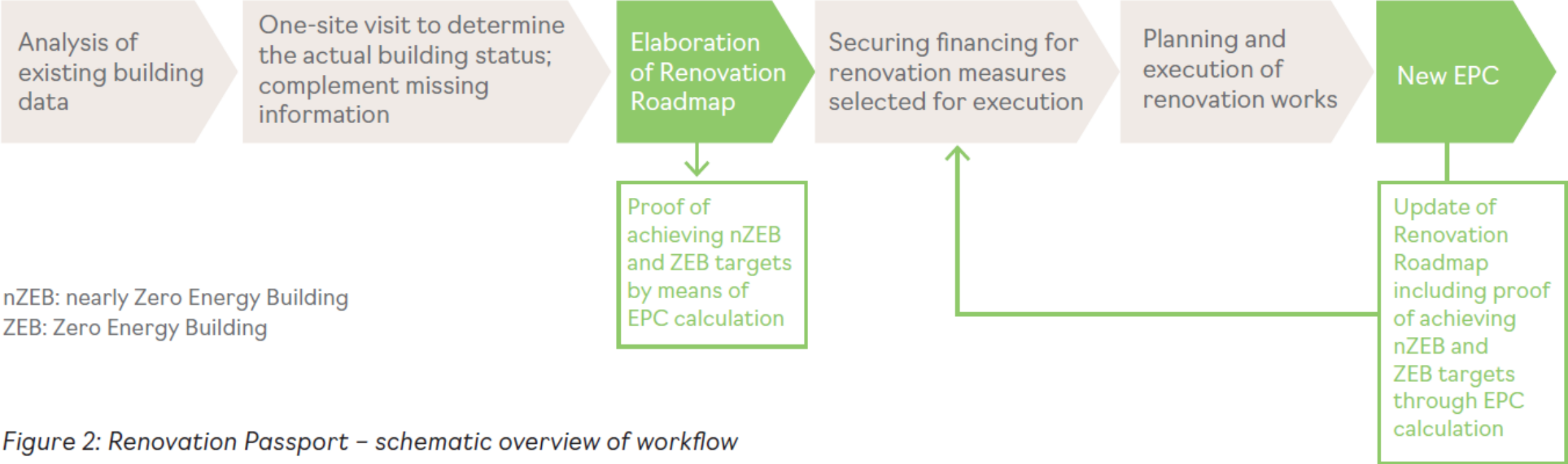


Figure 2: Renovation Passport – schematic overview of workflow

Source: TIMEPAC factsheets <https://timepac.eu/resources/>

Optimise Renovation Passports

Links between EPC and RP

1. **Enhance existing EPC** calculation software which already includes energy modelling and links to EPC databases, to be **compatible** with the **passports**.
2. Use **other data sources** to **complement** the **certificate** with real energy use, health, comfort, cost over time, and climate change adaptation.

Approach to repositories

1. **EPC database environment**, that enables the **storage of EPCs, renovation passports**, and other building-related data in a dedicated account. This is the process currently used in the province of Salzburg, Austria.
2. BIM software allows data to be stored in a **centralised location**, ensuring up-to-date information. An example of this is the CYPE BIMserver.center

Implementation renovation measures

1. **EPC database**, if versioning of EPCs and passports is feasible.
2. **BIM-based workflow** for recording changes to the building, using the capabilities of BIM.
3. **Energy audit reports**, when there is an Energy Management System

Optimise renovation passports

- Ensure that professionals have access to **data repositories** to **minimize the cost of renovation passports**.
- Provide easy access to **operational data** for professionals.
- Maintain **up-to-date information on the** status of the **building** by tracking the implementation of renovation measures.
- Enable **spatial referencing** of information, including a link to regional/ municipal plans with data on spatial renewable energy potential.
- Include a reference to the requirements of the **EU-Taxonomy Regulation for financial information**.
- Use quality-assured Level 3 BIM architectural models for **quality control, verifying the reference area and volume used to calculate indicators**.

Round table 1: Questions

- What are your views on the Renovation Passport, and what challenges might we face in implementing it?
- What is the added value and role of the Renovation Passport in supporting retrofitting policies?
- What should the Renovation Passport look like to help increase the renovation rate?
- Would it be beneficial to include additional indicators in the renovation scenario planning tool?
- Which specific projects are you involved in regarding the Renovation Passport?