Building Digital Logbook

Are you ready for B-LOG?

R2M RESEARCH TO MARKET SOLUTION

BPIE

vito Energy Ville

Sustainable Places Conference

Smart Buildings Workshop

28 October 2020

Introduction

- EC call for tenders: Study on the development of an EU framework for buildings' digital logbook
- B-LOG consortium selected: R2M Solution, VITO and BPIE
- Study run from Dec. 2019 to Dec. 2020

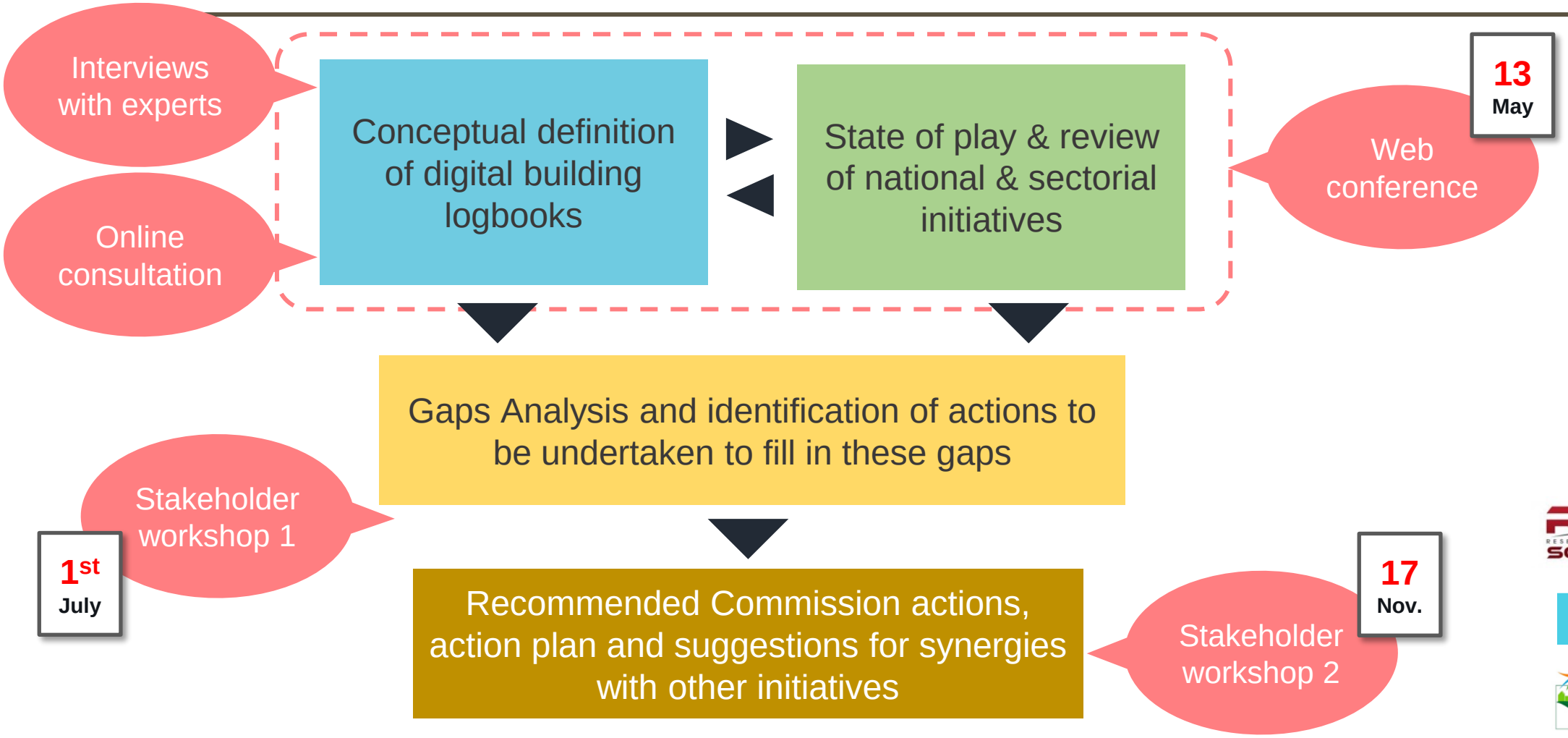
Why digital building logbooks?

- To increase data availability and transparency to a broad range of market players
- To reduce information asymmetries along the building life cycle
- To reduce significantly the need to recreate information over the life cycle of the building

Why this study for an EU framework?

- To understand which **market needs** building logbooks address in the first place
- To define **who should have access** to information and data of the digital building logbooks
- To identify the **impacts** of digital building logbooks
- To study how to achieve the **fair distribution of benefits** created by a digital building logbook
- To **review existing national and private systems** related to building logbooks
- To assess whether there a need for a **European approach for data collection and management**
- To propose **concrete steps** the Commission could undertake to support the logbook approach
- To assess how such an initiative fit into the existing **EU policy framework**
- …

How is the study structured?



Review of existing initiatives

State of play & review of national & sectorial initiatives

- Woningpas
- Dossier d'intervention ultérieure
- *Madaster*
- Opleverdossier
- Platform CB'23

- Homebook
- Le carnet numérique du logement
- Passeport Efficacité Énergétique
- Mon carnet logement
- Wikihabitat

- Eigenheim Manager
- Hausakte
- Gëbaudepass
- QDF Hausakte
- ImmoPass

- Fascicolo del Fabbricato
- Livro de obra
- Libro del Edificio
- PAS-E
- Electronic building ID

- Bedrebolig
- Ilmastoviisaat Taloyhtiöt
- Building Passport GBC
- Real estate service manual
- Klimatdeklaration
- BASTA Loggbok
- Produktkollen
- Min Villa

- Federal Register

- IBroad
- ALDREN
- BAMB
- BIM4EEB
- DigiPLACE
- X-tendo

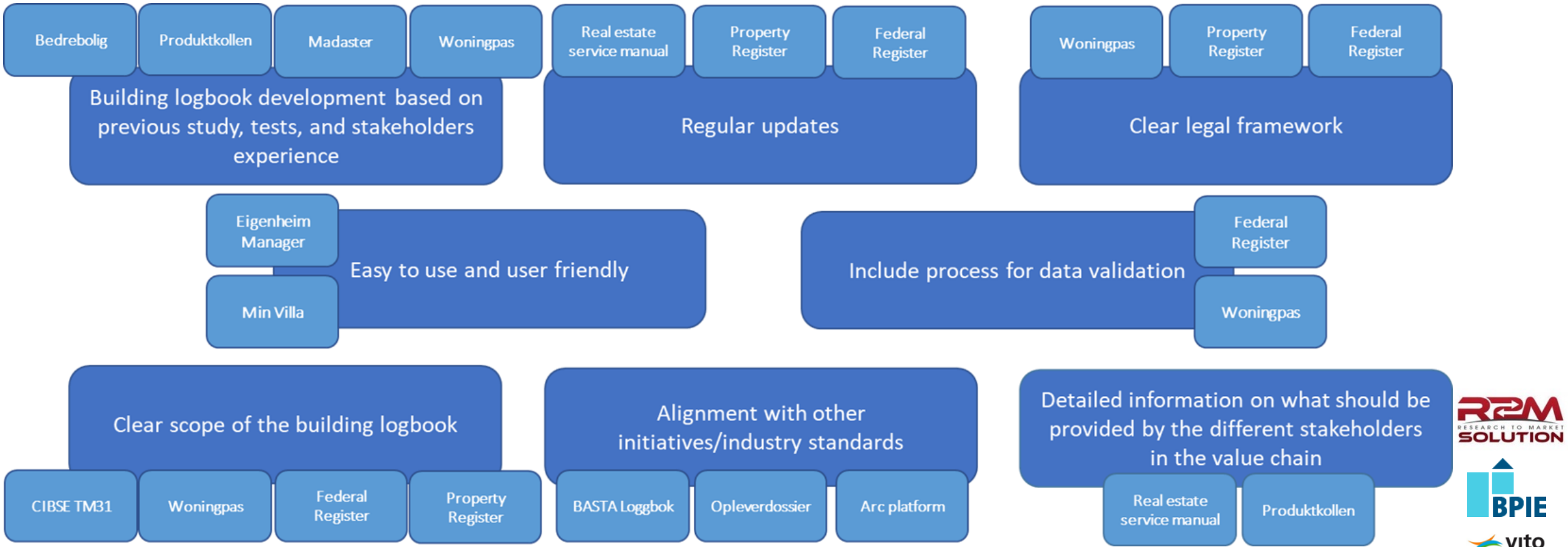
- CIBSE TM31
- Home Information Pack
- Home report

- Arc platform

- Property Register

Success factors

State of play & review of national & sectorial initiatives



Barriers to implementation

State of play & review of national & sectorial initiatives

Cost implications

- Costs for implementation, update and validation

Static nature of the building logbooks

- Information often need to be manually updated and the building logbook does not include dynamic information on the day-to-day use

Privacy and data management

- Not clear data ownership and data handling procedures, including data validation

Access to information

- Information accessible only on site and/or to specific stakeholders

Administrative burden

- No clear understanding of the use and added value of the building logbook

Fragmented regional approach

- In particular in Italy and Spain where regions develop their own requirements for building logbooks

What is a digital building logbook?
Stakeholders' views (survey and interviews)

Conceptual definition of digital building logbooks

Most common views

- Most (all) interviewees say it's a **repository for (all relevant) building data**
- There is a **broad spectrum of ideas** of what the DBL should be and what it should be able to do.
- The most common purpose mentioned in related to the definition is that it can enable a **reduction of energy/carbon use** and mitigate the sector's climate and environmental impact (throughout the building's life cycle).
- Other common answers are: **support the construction value chain** and **provide benefits to the building owner**.

Some central quotes

- *(Most recurrent view) A DBL is a digital repository with an interface that enables different parties to use the data.*
- *(Visionary) "The DBL should be like a **health record for a person**"*
- *(Life-cycle of the building) "A DBL should bring all relevant information together, including what the building is and what it can do. Furthermore, the logbook should enable to capture the information over **the whole life cycle of the building** to better understand the building and take the appropriate decisions also at the end of life".*
- *(Process oriented) "It is the **process** that is put in place that makes the difference. We need to digitalise the process."*
- *(Enable non-energy benefits) "The DBL should **address the quality of the building**, not only from a thermal and energy point of view, but also from an acoustic and air quality point of view.*

What is a digital building logbook?
Our definition

Conceptual definition of digital building logbooks

What is a DBL? Who is it for?

A digital building logbook is a **common repository for all relevant building data**. It facilitates **transparency**, **trust**, **informed decision making** and **information sharing** within the construction sector, among building owners and occupants, financial institutions and public authorities.

What does it do?

A digital building logbook is a **dynamic tool** that allows a variety of **data**, **information** and **documents** to be **recorded**, **accessed**, **enriched** and **organised** under specific categories.

What is the scope?

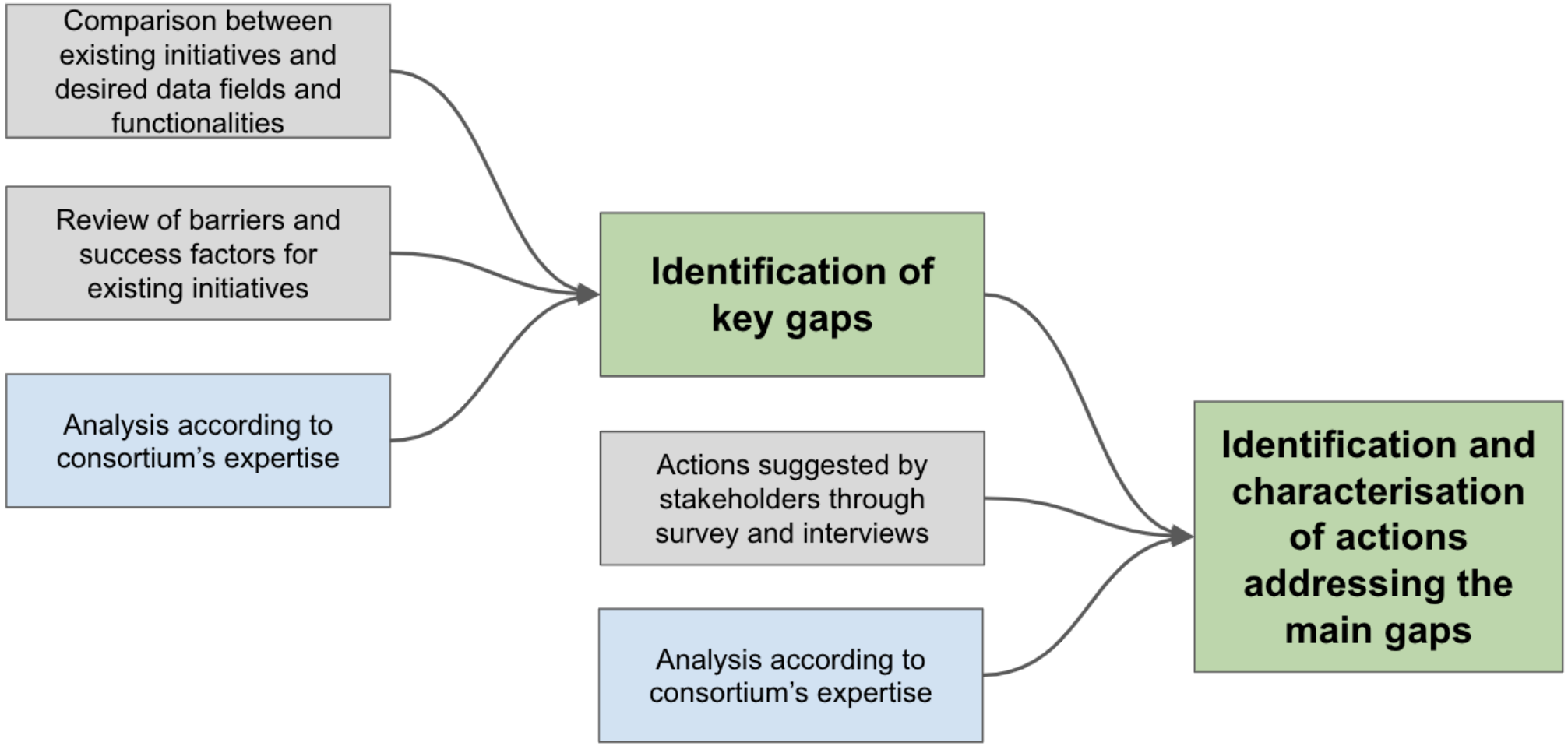
It represents a **record of major events and changes** over a **building's lifecycle**, such as change of ownership, tenure or use, maintenance, refurbishment and other interventions. As such, it can include administrative documents, plans, description of the land, the building and its surrounding, technical systems, traceability and characteristics of construction materials, performance data such as operational energy use, indoor environmental quality, smart building potential and lifecycle emissions, as well as links to building ratings and certificates. As a result, it also enables circularity in the built environment.

How can the data be stored and managed?

Some types of data stored in the logbook have a more **static** nature while others, such as data coming from smart meters and intelligent devices, are **dynamic** and need to be **automatically and regularly updated**. A digital building logbook is a **safe instrument** giving control to users of their data and the access of third-parties, respecting the fundamental right to protection of personal data. Data may be stored within the logbook and/or hosted in a different location to which the logbook acts as a gateway.

Approach for the gap analysis

Gaps Analysis and identification of actions to be undertaken to fill in these gaps



Key gaps to be addressed

Gaps Analysis and identification of actions to be undertaken to fill in these gaps

Financial aspects **User expectations** **Data aspects** **Legal aspects**

Gap #1 Lack of a sound funding model

Gap #2 DBL benefits not clear to all the stakeholders

Gap #3 Inconsistency around the scope and purpose of DBL

Gap #4 User-friendliness not optimised

Gap #5 Barriers to updating the DBL

Gap #6 Challenges linked with the interoperability of the repository

Gap #7 Issues with data governance

Gap #8 Lack of defined legal framework

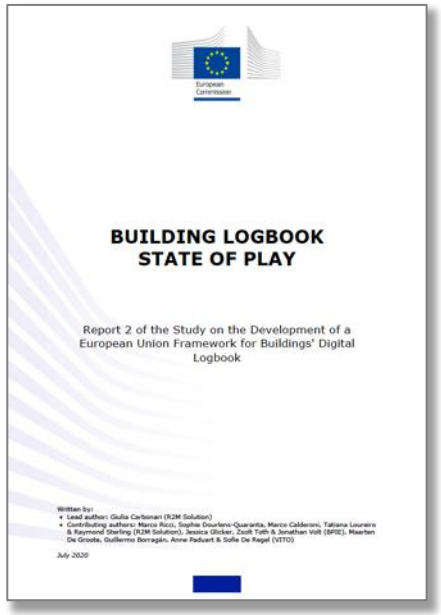
Gap #9 Uncertainty around the role of EU and MS level policy

Conclusions & Next steps

Recommended Commission actions, action plan and suggestions for synergies with other initiatives

- See our publications on https://op.europa.eu/en/home

- Next steps:
  - Elaboration of key recommendations for policy actions
  - Stakeholder meeting on **17 November**: join us!
  - Third report gathering all project's results to be published in December



Thanks for your attention!

Sophie Dourlens-Quaranta, B-LOG coordinator
sophie.dourlens@r2msolution.com