



Building Performance Digitalisation and Dynamic Logbooks for Future Value-Driven Services

DBL Workshop

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CHRONICLE Overview



Title: Building Performance Digitalisation and Dynamic Logbooks for Future Value-Driven Services

Grant Agreement: No 101069722

Duration: 1st July 2022 – 31st January 2026 (42 M)

Total budget: ca. 6 mill. € (ca. 75% EC funded)

Project consortium: CIRCE (coord.) + 18 partners

Call: Twin green and digital transition 2021 (HORIZON-CL5-2021-D4-0)

Type of action: HORIZON Innovation Actions

Granting authority: European Climate, Infrastructure and Environment Executive Agency (CINEA)



Objectives



CHRONICLE will deliver a **holistic, life-cycle performance assessment framework and tool-suite for different building variants**, supporting sustainable design, construction and/or efficient renovation and investment decision making under the umbrella of the Digital Building Logbook concept.

Goal 1. To deliver a holistic and dynamic **Energy Performance Assessment Framework** addressing all phases of the building Lifecycle

Goal 2. Introduce **Strong Human Centric** (comfort, well-being) & **Social Aspects** (S-LCA)

Goal 3. Standards Based and Interoperable Building Performance Framework

Goal 4. To identify stakeholder incentives and drivers and deliver **user friendly and insightful building performance information** that will trigger future business models

Goal 6. To validate the expected impact of the CHRONICLE solution in **real-life conditions** and **maximise replication** potential

Goal 5. To design compound (energy & non-energy) service offerings and **business models** based on flexible performance triggered SLAs



DBL developments



- **End users:** the dynamic CHRONICLE DBL is addressed at **multiple end-users**, including building owners, facility managers, public authorities who can benefit from the access to a **digital interface including datasets of building-related data** exploitable by third-party applications as well as in connection with other databases and tools (e.g., BIM models).
- **Needs/requirements:** the DBL answers to necessity of having **BIM-based repositories** of data with relevant building information e.g., energy performance, consumption data, plans for renovation, dynamic data) to be continuously updated (time-stamped and immutable records) and which can be exploited by third-party applications (i.e. guaranteeing interoperability).
- **Evaluation method:** test of the DBL and its ability to feed data into the Digital Twin framework, ensuring the **continuous availability of data** (performance, maintenance etc.) and providing a robust, reliable and dynamic assessment.



Demonstrators



Switzerland

La Sosta Retirement Home



Denmark

Herning Social Housing



Ireland

Ó Cualann Affordable Homes



Greece

Aspra Spitia Settlement



Spain

Ecce Homo Social Housing

What is our goal?

Together, we strive to find ways how to best reduce energy usage and carbon emissions during the whole life cycle of a building.

We want to make sure that homes works for users and uses the right amount of energy. That will be better for people budget and for our planet.

What are we planning to do?

We will develop several digital tools to measure and improve the building performance. The tools will help to monitor energy consumption, to plan renovation and maintenance, and to ensure adequate comfort of living.



Thank you!



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