LiveBetter Newsletter –Edition #2 | November 2026

LiveBetter completes its first project phase and prepares the next stage of testing for smarter building renovation



The EU-funded project LiveBetter has reached an important milestone with the completion of its first project phase at the end of September 2026. Over the past year, partners have worked together to define service requirements, prepare datasets and technical infrastructure, and gather initial feedback from end users, laying the groundwork for the testing of digital solutions that support smarter, more efficient and people-centred building renovation.

On 13–14 October, partners met in Valladolid, Spain, for the project's second physical plenary meeting, hosted by CARTIF, to review progress across the six European Business Cases and prepare the next stage of testing. The focus now shifts towards assessing preliminary versions of the digital services and refining them based on users' needs.

Discover the key achievements and the latest status of all six Business Cases in our latest press release.

From Smart Meter to Smart Decisions: The Aggregator's View

As renewable energy expands, household flexibility is becoming an increasingly important resource for balancing electricity supply and demand. Energy aggregators play a key role by combining the flexibility of individual households into a resource that can support grid stability and make better use of renewable energy. Smart meter data helps them understand consumption patterns, forecast demand and identify opportunities to shift energy use.

However, data alone is not enough. Successful flexibility services must also consider people's daily routines, comfort expectations and willingness to participate. Through its Living Lab in Greece, HERON is exploring how household data and user behaviour can be combined to develop reliable, people-centred energy flexibility solutions.

Read the full article here.

Building the foundations for interoperable data exchange in LiveBetter

LiveBetter has launched a series of collaborative technical activities to improve data integration and interoperability across its six European Business Cases. A key milestone has been the definition of the LiveBetter Common Data Model, a shared framework designed to bring together different types of building-related information, including sensor data, energy performance certificates (EPCs) and renovation records.

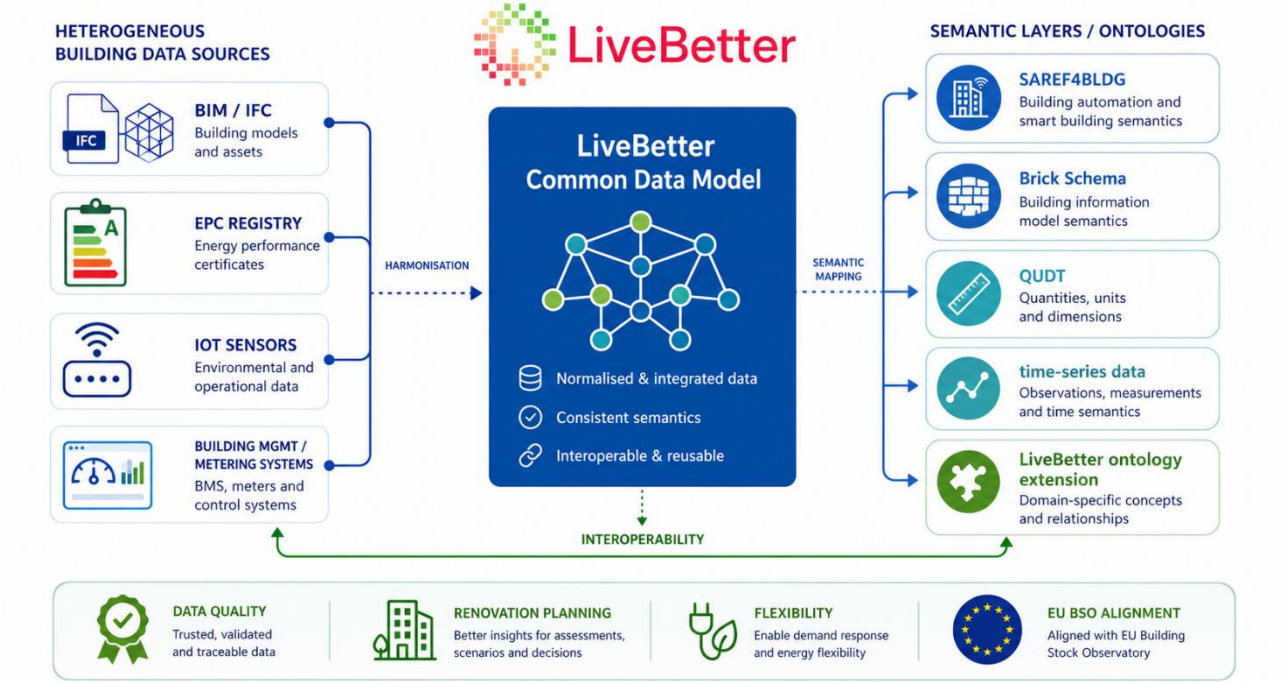
Bilateral technical meetings are now helping partners identify available datasets, data formats, existing exchange mechanisms and potential data quality challenges in each demonstration environment. These activities will support the future implementation of the LiveBetter Hub, enabling more reliable and interoperable data exchange to underpin smarter, data-driven building renovation strategies across Europe.

Read the full article here.

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A Common Language for Smarter Building Renovation



LiveBetter is developing a Common Data Model and harmonisation blueprint to establish a shared language for building-related data across the project. By combining a common data model with specialised ontologies, the approach connects information from different sources, including BIM/IFC files, Energy Performance Certificates (EPCs), smart meters and IoT platforms, while preserving its meaning and structure.

Building on established ontologies such as SAREF4BLDG and Brick Schema, the LiveBetter ontology supports the integration of static building information and dynamic operational data without requiring partners to adopt a single rigid data format. These semantic foundations will help improve interoperability and data quality, supporting AI-based services, renovation workflows and future data exchange with the EU Building Stock Observatory.

Read the full article here.

Co-Creating Smarter Buildings: Why Market-Ready Renovation Services Start with Real People

Developing effective digital renovation services requires more than advanced technology: solutions must also respond to the real needs of the people who use them. Through co-creation activities involving six European Business Cases, LiveBetter has brought together end users, stakeholders and service developers to ensure that digital tools reflect everyday operational needs and challenges.

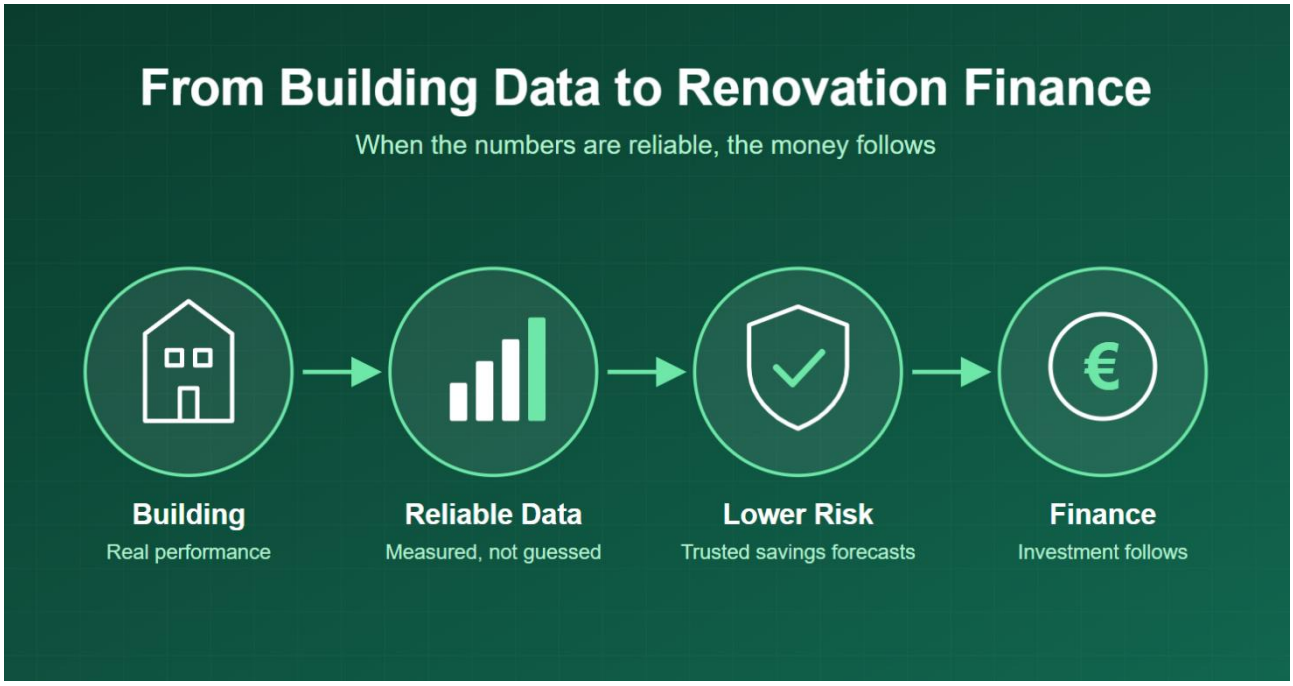
During the first six months, workshops and structured interviews involving 19 user personas generated 171 functional requirements, helping refine the project's services and methodological framework. The feedback highlighted key priorities, including simpler user interfaces, reduced interaction effort, transparent AI-based decisions and clearer links between energy savings and financial benefits. As the project moves into its next phase, this feedback will guide the refinement and testing of preliminary service versions, with a stronger focus on usability and the end-user journey.

Read the full article here.

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Why Good Building Data Makes Renovations Easier to Finance



Reliable building data can play a key role in accelerating Europe's energy renovation efforts. When building owners, energy service companies and financial institutions can rely on accurate information about energy consumption and building performance, they are better equipped to assess investment risks, estimate savings and make informed financing decisions. Conversely, incomplete data and uncertainty about actual energy savings can make renovation projects harder to finance, particularly smaller ones.

Through its development of AI-powered services, LiveBetter aims to turn building data into actionable renovation plans and more credible investment cases. By supporting the assessment of renovation scenarios, comparing expected and actual performance, and improving data consistency, these solutions can help strengthen trust between building owners, service providers and financiers.

Discover how reliable data can help unlock investment and support the energy renovation of Europe's building stock. Read the full article here.

LiveBetter Scientific Publications

A. Gelesz et al., "A Co-Creation Approach to User Requirements for Data-Driven Living Environment Services," 2026 IEEE International Workshop on Metrology for Living Environment (MetroLivEnv), Cambridge, United Kingdom, 2026, pp. 346-351

Developing effective data-driven services starts with understanding the people who will use them. This paper explores the co-creation methodology used to develop 15 services aimed at improving energy and comfort performance in the built environment. Through user personas, user stories, workshops and structured feedback across six stakeholder groups, the process addressed technical features, user experience, sustainability, financing and policy. The activities resulted in 171 functional requirements to guide service development and support future market uptake.

https://ieeexplore.ieee.org/document/11659926

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N. A. Alzahab et al., "Indoor comfort measurement and User-Centered Dashboard for real world residential applications: A Comfort-as-a-Service Framework," 2026 IEEE International Workshop on Metrology for Living Environment (MetroLivEnv), Cambridge, United Kingdom, 2026, pp. 340-345

How can indoor environmental data help improve comfort at home? This study introduces a Comfort-as-a-Service (CaaS) framework that combines environmental monitoring, comfort assessment and a user-centred dashboard for residential buildings. By translating environmental, energy and comfort data into accessible visualisations and personalised recommendations, the framework helps identify discomfort events and suggest targeted actions. Its application in a real residential case study supports better-informed decisions balancing occupant comfort and energy efficiency.

https://ieeexplore.ieee.org/document/11659891

D. Stoian et al., "LiveBetter: Accelerating Deep Renovation Through High-Quality Data and AI-Based Data-Driven Services," 2026 IEEE International Workshop on Metrology for Living Environment (MetroLivEnv), Cambridge, United Kingdom, 2026, pp. 328-333

High-quality data and artificial intelligence can help overcome barriers to deep building renovation. This contribution outlines LiveBetter's approach to combining interoperable data-sharing mechanisms with 15 AI-based services addressing energy performance certificates, digital inspections, building management, renovation planning, financing and energy flexibility. It also describes how these solutions are being validated through six European Business Cases, alongside complementary activities on financing schemes, business models, policy support and capacity building to encourage market uptake.

https://ieeexplore.ieee.org/document/11659920

E. Sarantinopoulos et al., "Real-Time Residential Energy Monitoring: Data Characterization and Quality Enforcement," 2026 IEEE International Workshop on Metrology for Living Environment (MetroLivEnv), Cambridge, United Kingdom, 2026, pp. 334-339

Reliable energy analysis depends on accurate, continuous data. This paper describes a real-time residential energy monitoring platform connected to HERON's smart meter API and deployed in 141 homes. Its automated data pipeline and quality-control mechanisms identify missing values, sampling issues and anomalies in consumption data. The study highlights the challenges of maintaining reliable data streams across households and shows how continuous monitoring and data quality enforcement can underpin further analyses, including energy flexibility estimation and appliance-level consumption disaggregation.

https://ieeexplore.ieee.org/document/11659895

Z. Mylona et al., "Hybrid Two-Level Mixture of Experts Framework Using Machine Learning Components for Day-Ahead Residential Energy Load Forecasting", Zenodo

Accurately predicting household electricity demand can support smarter energy management and flexibility services. Developed jointly by the DEDALUS and LiveBetter projects, this study presents a machine-learning framework for day-ahead residential energy load forecasting using anonymised historical consumption data. The approach combines K-Means clustering with XGBoost and LightGBM models to capture different household consumption patterns. Validated with real-world smart meter data from the HERON Living Lab, it outperforms standalone forecasting models and offers potential applications in demand response, dynamic tariffs and scalable energy management while preserving household privacy.

https://zenodo.org/records/23363816

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LiveBetter Events

Over the past few months, LiveBetter has been actively involved in a range of events, sharing project progress, exchanging knowledge and connecting with stakeholders across the European built environment and energy sectors.

26-27/05/2026, Brussels: ECTP Conference 2026



LiveBetter participated in the ECTP Conference 2026, bringing together researchers, industry representatives, policymakers and other stakeholders to discuss the future of the built environment and the role of innovation in achieving sustainability goals.

Project partners ECTP, MoS and UNIVPM represented the consortium at the poster exhibition, presenting LiveBetter's objectives and ongoing activities. The event also provided an opportunity to distribute project flyers and engage with attendees interested in digital solutions for building performance, energy efficiency and renovation.

09-11/06/2026, Brussels: European Sustainable Energy Week (EUSEW)



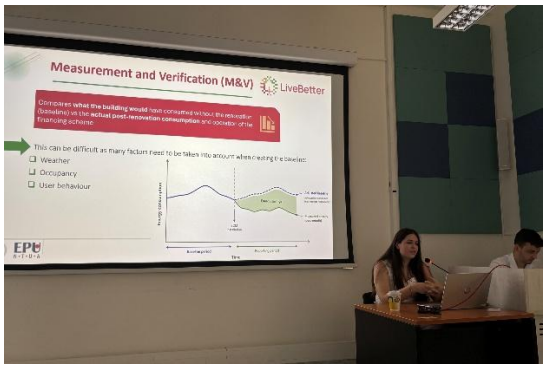
LiveBetter took part in EUSEW 2026, as part of the Smart Energy Cluster's joint booth. The European Sustainable Energy Week brought together policymakers, researchers, industry representatives and energy stakeholders to exchange knowledge and accelerate Europe's clean energy transition.

Representatives from ICCS, UNIVPM, MoS and ECTP presented LiveBetter's objectives and ongoing work alongside 18 other EU-funded initiatives working on smart grids, building decarbonisation, energy efficiency and digital innovation. The event offered valuable opportunities to engage with visitors and partners and highlight the importance of cross-project collaboration in advancing integrated, user-centred energy services.

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06-09/07/2026, Rhodes: 17th International Conference on Information, Intelligence, Systems and Applications (IISA 2026)



LiveBetter participated in IISA 2026, where UNIVPM and ICCS showcased the project's work on interoperable building data, trustworthy AI and people-centred digital services. A dedicated workshop on AI and data analytics for the energy transition provided an opportunity to present LiveBetter's vision for transforming fragmented building information into actionable knowledge for renovation, building operation, inspection, energy performance and indoor comfort.

The event also featured three scientific contributions from project partners, exploring explainable AI for indoor comfort assessment, an LLM-based virtual assistant for multi-stakeholder digital platforms, and Bayesian methods for verifying building energy savings. Together, these contributions highlighted how human-centred AI, reliable data infrastructures and robust performance assessment can support more efficient, comfortable and trustworthy buildings.

14-16/07/2026, Cambridge: IEEE International Workshop on Metrology for Living Environment (MetroLivEnv 2026)



LiveBetter participated in IEEE MetroLivEnv 2026. The project co-organised a dedicated special session on high-quality building data, AI-based services and measurement-supported digital environments for deep renovation. The session brought together research on interoperable data infrastructures, real-time energy monitoring, indoor comfort services and user-centred service development.

Contributions from ICCS, UNIVPM, MoS and ABUD showcased advances in the LiveBetter architecture and Digital Buildings Hub, residential energy monitoring, Comfort-as-a-Service and co-creation. Together, these studies highlighted how reliable measurements, robust data management and AI-based decision-support tools can be combined with stakeholder feedback to develop more effective, transparent and human-centred renovation services.

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