EPC RECAST

ENERGY PERFORMANCE CERTIFICATE RECAST

R2M Solution – Project goals and ongoing activities

K.EY Rimini | 22-24 March 2023

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EPC RECAST in a nutshell

H2020 project from 1 September 2020 to 30 June 2024

GOAL: Innovative process and digital toolbox to develop and validate a new generation of Energy Performance Certificates for residential buildings

✓ To facilitate and improve working practices of **EPC assessors** → **quality** and **reliability** of EPCs

✓ To tailor renovation recommendations, highlight benefits for **building owners** → **user-centric** approach

Performing consistent data collection

Enabling data quality checks on-site + online

Fostering renovation roadmaps & investments

Providing non-energy benefits

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11 partners

Research centers | Energy providers and ESCOs | Companies and assessors | Associations

CSTB le futur en construction

tecnalia Inspiring Business

Fraunhofer IBP

LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY LIST

POLITECNICO MILANO 1863

EDF

ENGIE

ENBEE Environment & Building Energy Efficiency

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bimeo

REHVA Federation of European Heating, Ventilation and Air Conditioning Associations

Over 150 pilot dwellings in 6 countries

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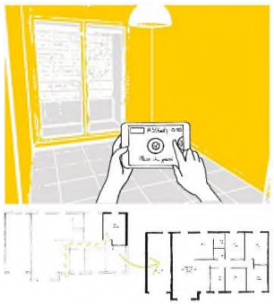
Main actions and outputs

- **Automated** **data collection and enrichment** **for EP assessment**: on-site scans / public database
- **Quality procedures** **&** **consistency checks** **linked with** **ISO/CEN standards** **(M/480 mandate)**: self-checking of input data using expert rules, expert values / data consistency using data crossing tests
- **Use of** **measured energy consumption** **and deployment** **of smart meters**: model calibration, verification / operational rating indicators
- **Information sharing,** **common language** **and** **data interoperability**: digital tools, digital building logbooks, BRPs, SRI, Level(s)
- **Co-design** **of the** **certificate** **with building owners / dwellers and assessors**: indicators, non-energy benefits, renovation roadmap



→ *Implementation of EPC RECAST on* ***150 pilot dwellings*** *by* ***trained EPC assessors***

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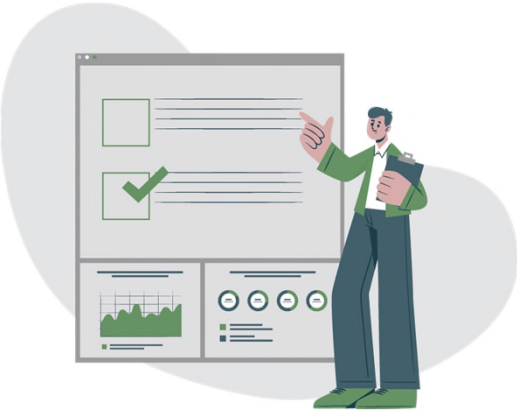
EPBD revision (ongoing) → Quality checks

Introducing a mandatory minimum set of quality checks at EU scale, including control indicators and data sources

→ **standardized control report/certificate** as an annex to the EPC or a separate document

→ **self-checking algorithms and consistency tests** of EP assessment by EPC assessors to facilitate independent controls

- Developed in EPC RECAST in connection with **several national EP calculation methods and ISO/CEN Standards**



Renovation recommendations on the EPC is represented by a RENOVATION ROADMAP

→ **backwards from NZEB level** = Class A of the EPC

→ options are presented to the building owner to avoid lock-in effect

- Deliberate focus on **European residential buildings**

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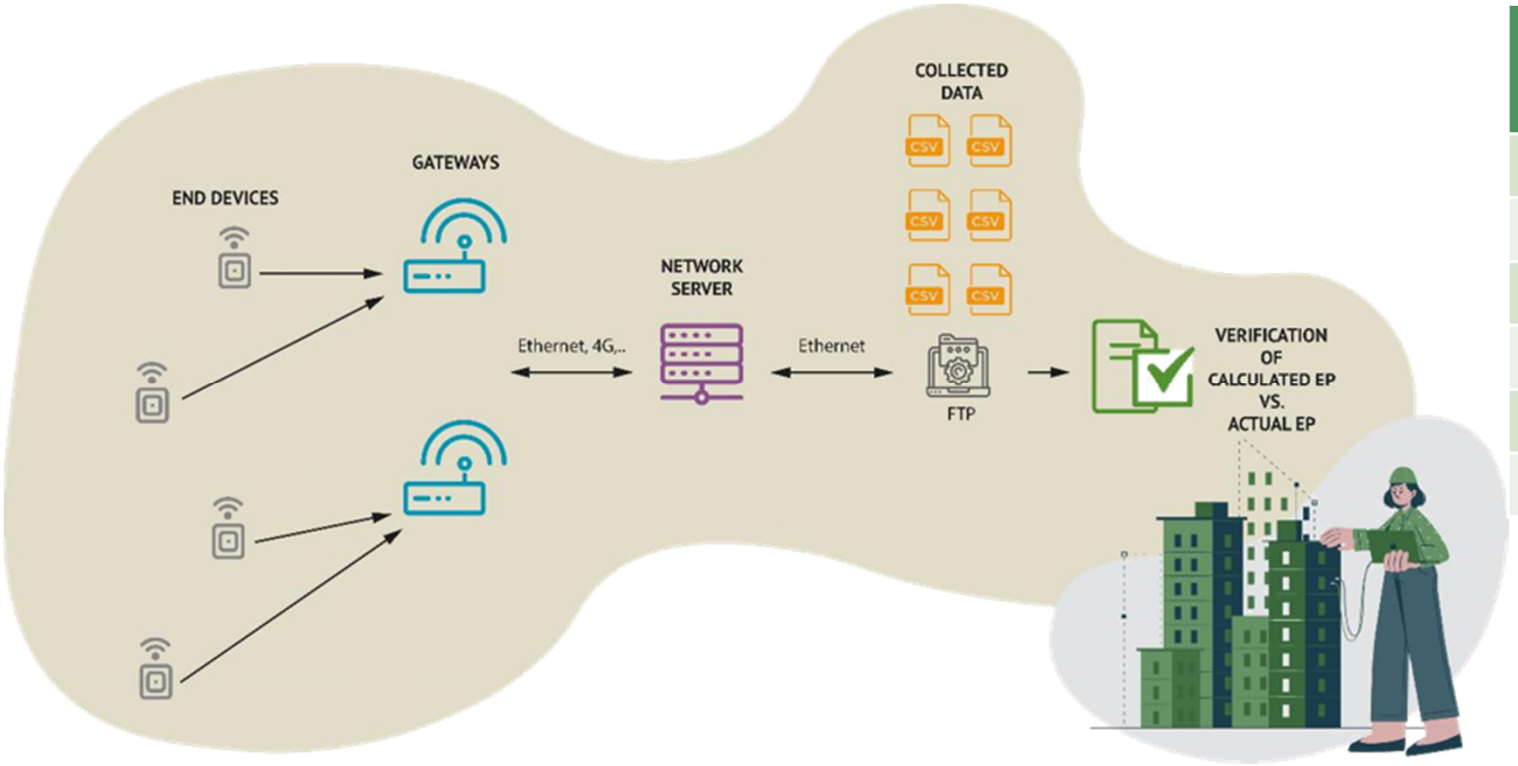
NOW: long-term monitoring process in 6 EU Countries



COUNTRY	TOTAL N. OF PILOTS	N. OF PILOTS SELECTED FOR LTM
FRANCE	**16**	8
GERMANY	**56**	28
ITALY	**15**	8
LUXEMBOURG	**6**	3
SLOVAKIA	**5**	2
SPAIN	**15**	8

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Long-term monitoring (LTM) process thanks to sensors + data collection via a dedicated platform (powered by Jeedom)

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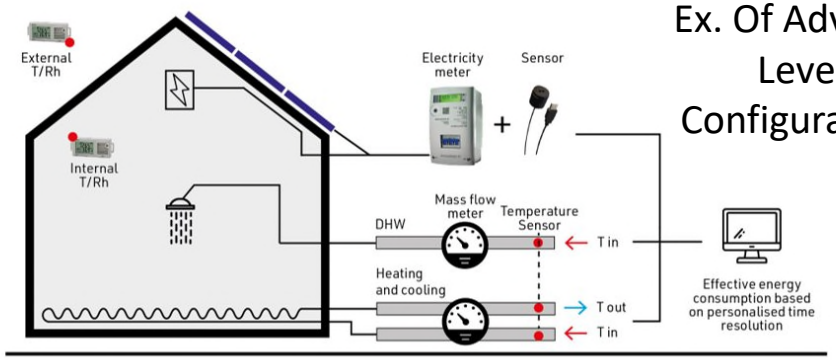
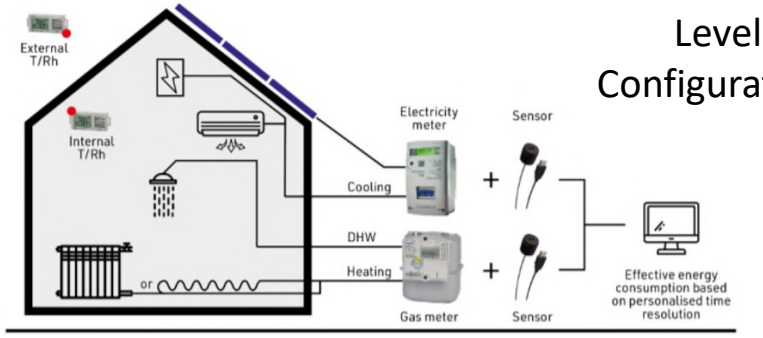
LT monitoring done according to pre-defined configurations



Ex. Of Advanced Level - Configuration 6



Ex. Of Advanced Level - Configuration 2

Goals of LT monitoring:

→ **Enhance reliability for new EPC generation kWh/m2 y (PE) –** Heating + DHW + Ventilation

→ **Use data for model calibration** (measured VS simulation)

→ **Normalize climate data** (correction of weather / building use)

→ **Support consistent measurement of new indicators for EPC** (e.g., lighting, IAQ, etc.)

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Stay tuned!

Follow EPC RECAST and sister projects:

Join us at Sustainable Places 2023

Coordination and Support Actions (CSA) that started in 2019
(Call H2020_LC-SC3-EE-5-2018-2019)

Qual DeEPC · U-CERT User-Centred Energy Performance Assessment and Certification · X-tendo

Innovation Actions (IA) that started in 2020
(Call H2020_LC-SC3-EE-5-2018-2019)

D2EPC · E-DYCE · ePANACEA Smart European Energy Performance Assessment & Certification · EPC RECAST

Coordination and Support Actions (CSA) that started in 2021
(Call H2020_LC-SC3-B4E-4-2020)

crossCert Next-generation of Energy Performance Assessment and Certification · EUB SuperHub · iBRoad2EPC · TIMEPAC The new EPC for Europe

Innovation Actions (IA) that started in 2022
(Call HORIZON-CL5-2021-D4-01-01)

CHRONICLE · Smart living EPC

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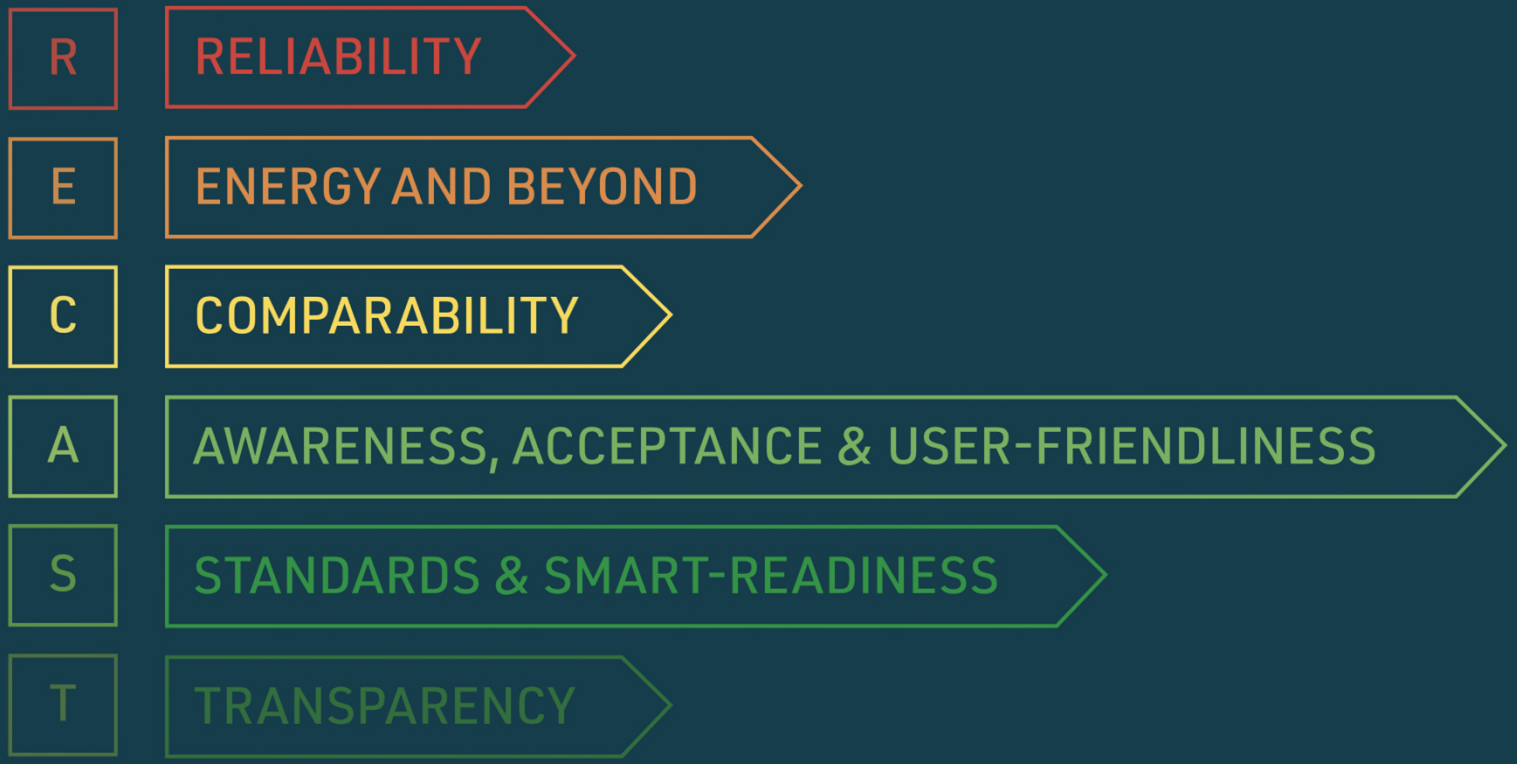

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