

EDYCE -Energy flexible DYnamic building Certification

Webinar: Data collection and processing for dynamic EPC

Prepared by:



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Data collection and processing for dynamic EPC

"Dynamic energy performance evaluation of buildings in operation requires gathering data from a multitude of controllers and sensors. This data collection is enabled by recent advances in Internet of Things (IoT) as well as building management systems (BMS) communication interfaces, combined with exploitation of open data.

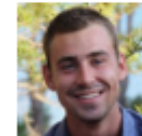
Once the data is collected, it is further processed in cloud environments to carry out monitoring analyses that will deliver further value to the building operator and occupants..

Experiences from the EDYCE demonstration project will be presented in this webinar combining perspectives from industrial actors with full-scale solutions as well as building analysis experts." (Pierre NEOGRID)

Agenda



09:00 – 09:10 Michal Zbigniew Pomianowski (AAU): Host/Short introduction of E-DYCE project. **(10min)**



09:10 – 09:20 Tristan de Kerchove (ESTIA): "From EPC to DEPC, the need of monitoring for energy and indoor environment". **(10min)**



09:20 – 09:30 Pierre Vogler-Finck (NEOGRID): "Industrial data collection and analysis in multi-family residential buildings for online performance evaluation".



09:30 – 09:40 Giacomo Chiesa (POLITO): "EDYCE Italian demo: monitoring and modelling plan."



09:40 – 09:50 Pedro M Ferreira (FCiências.ID): "Self Assessment Towards Optimisation of Building Energy"



09:50 – 10:00 Dimitris Lokas (CORE): Dimitris Lokas (CORE): "EDYCE Prediction Capabilities in CORE Hybrid Cloud infrastructure"



EDYCE Consortium

10 stakeholders, 4 countries

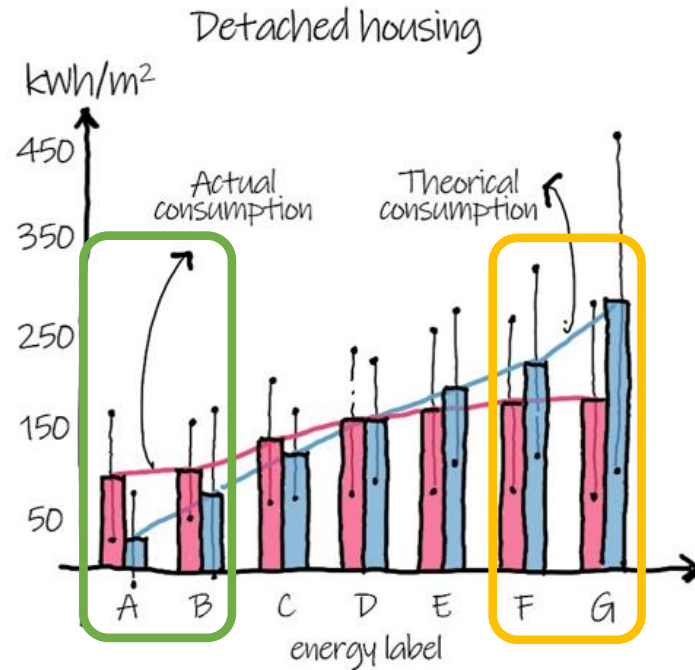


EPC sister projects

1st gen 2019	2nd gen 2020	3rd gen 2021

Motivation

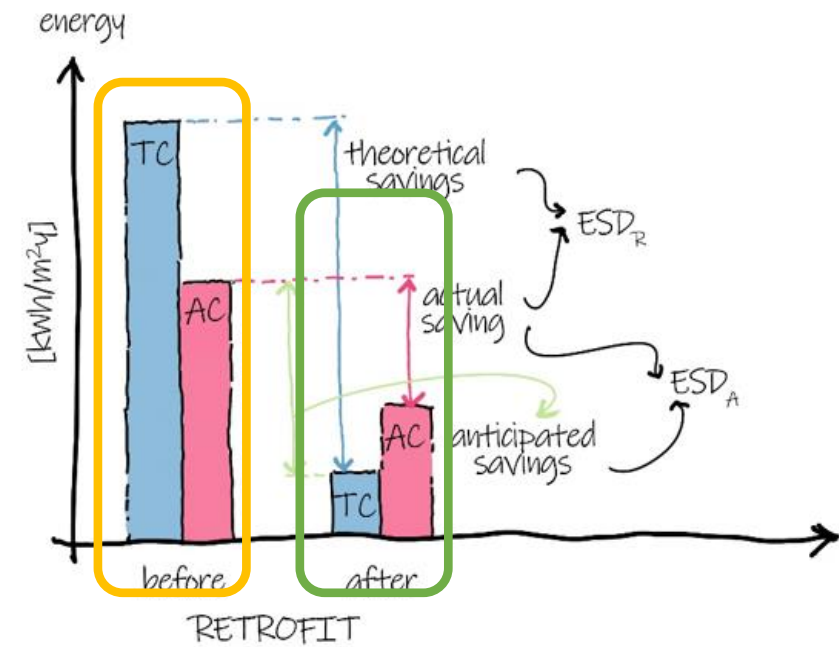
Denmark



Gram-Hanssøn and Hansen, 2016

230k buildings with EPC
135k buildings with metered heat

Switzerland



Cozza et al., 2020

1172 retrofited buildings
with theoretical&metered consumption



Objectives

- To deliver a methodology for dynamic certification of buildings based on openly available resources and tools.
- To develop integration framework
- Provide the user with accurate and clear feedback, increasing the user's awareness of building operation; user must obtain the information in a clear and concise way, at the right time to make the interventions (tenants, owners, the authorities).
- The savings will be achieved through optimizing building performance in a dynamic way, exploiting to the free running potential of the building and informing the user so the correct interventions can be made.
- Methodology application in demonstration buildings

Key results

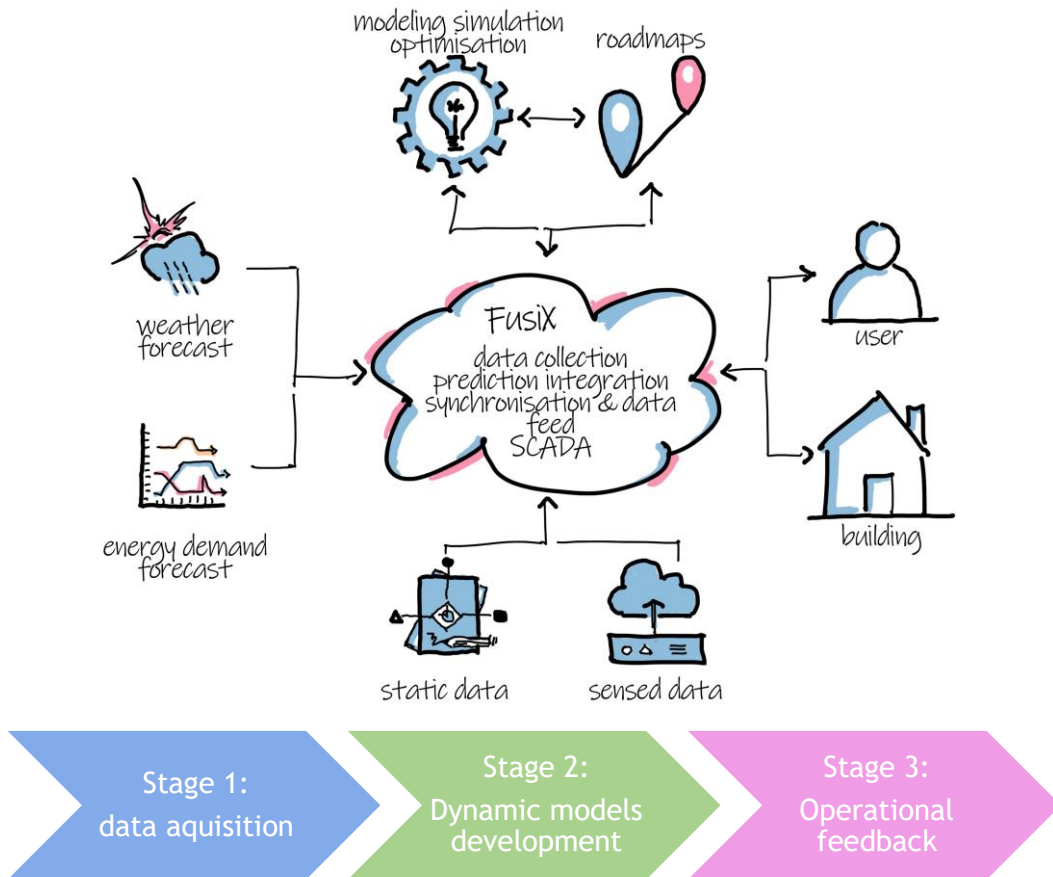
Dynamic modelling
Feasible monitoring

Middle ware with bridging agents,
PREDYCE tool - facilitate modelling

EDYCE protocol for end users (KPI)
Renovation and operational roadmaps

Reduction of performance gap
Operational savings
Free running

Illustration of methodology using different
real case buildings



Case studies



Project partners:



Web: E-DYCE.eu