

JOINT FINAL CONFERENCE

Next Generation Energy Performance Assessment, Rating and Certification

Towards a Smart and Decarbonised Future for European Buildings

Part 1: Overall context

Quick introduction and perspectives:

D²EPC, E-DYCE & ePANACEA



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24 May 2023

Brussels and online



EDYCE: Energy flexible DYnamic building Certification: Greater temporal resolution of energy performance

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EDYCE coordinator



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 893945.

Brussels , 24th of May 2023



Content

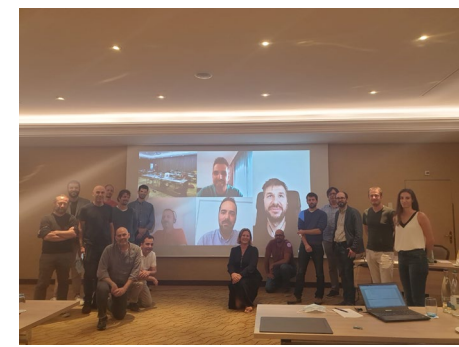
- Project identity
- EDYCE Consortium
- Motivation
- Key objectives
- Concept
- EDYCE demonstrations



EDYCE: Energy flexible DYnamic building Certification: Greater temporal resolution of energy performance

Grant number:	893945
H2020 call:	H2020-LC-SC3-EE-2019
Starting date:	01/09/2020
Duration:	36 months
Budget:	2,936,065.00
EU contribution:	2,495,177.50
Countries:	Denmark, Italy, Switzerland, Greece, Germany

EDYCE consortium



- 10 stakeholders
- 5 countries

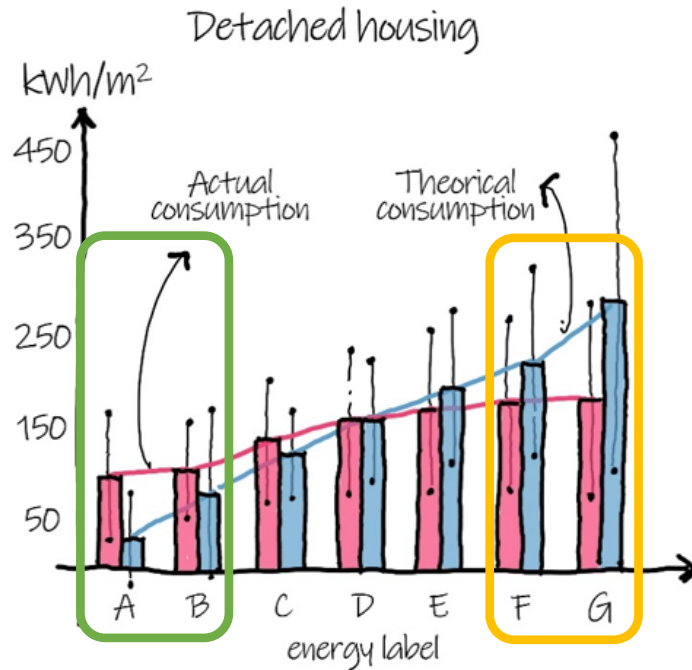
- 2 Universities
- 5 SMEs
- 2 Municipalities
- 1 National Agency



#	NAME	COUNTRY
1	AALBORG UNIVERSITET	Denmark DK
2	POLITECNICO DI TORINO	Italy IT
3	CORE INNOVATION CENTER NPO (CORE IC)	Greece GR
4	EMTECH GMBH	Germany DE
5	ESTIA	Switzerland CH
6	ENEA*	Italy IT
7	GENIKI EXYPP PROSTASIA S.A. (GEP)	Greece GR
8	OFFICE CANTONAL DE L'ÉNERGIE GENÈVE	Switzerland CH
9	TPM	Italy IT
10	NEOGRID TECHNOLOGIES APS	Denmark DK

Motivation

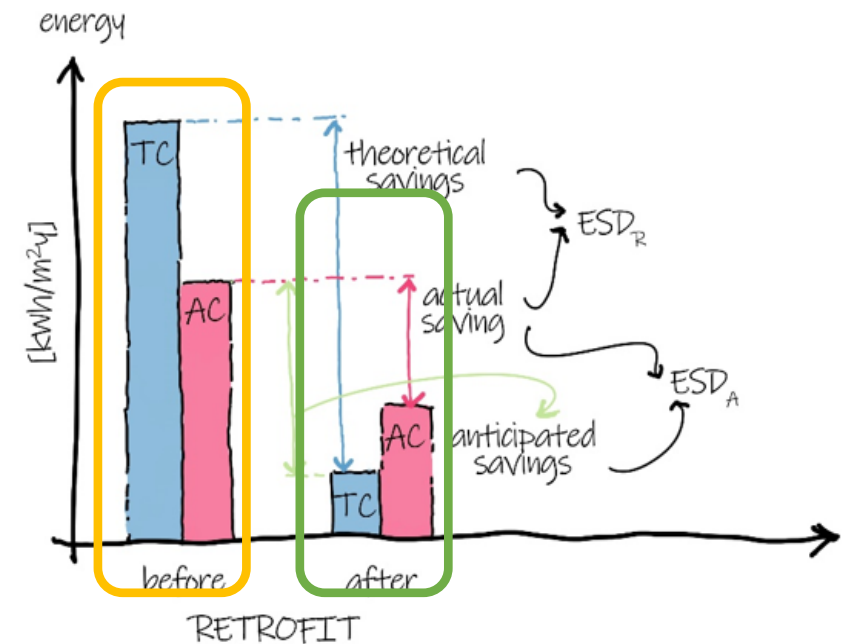
Denmark



Gram-Hansson and Hansen, 2016

230k buildings with EPC
135k buildings with metered heat

Switzerland



Cozza et al., 2020

1172 retrofited buildings
with theoretical&metered consumption

Key objectives

- **Methodology for dynamic certification** of buildings based on openly available resources and tools.
- To develop **integration framework**.
- **Increase the user's awareness** about real energy and IEQ (both expert and tenant).
- To facilitate the shift **from standard to adapted condition of use**.
- **Methodology application in demonstration buildings**

How?

Dynamic modelling
Monitoring – use of operational data

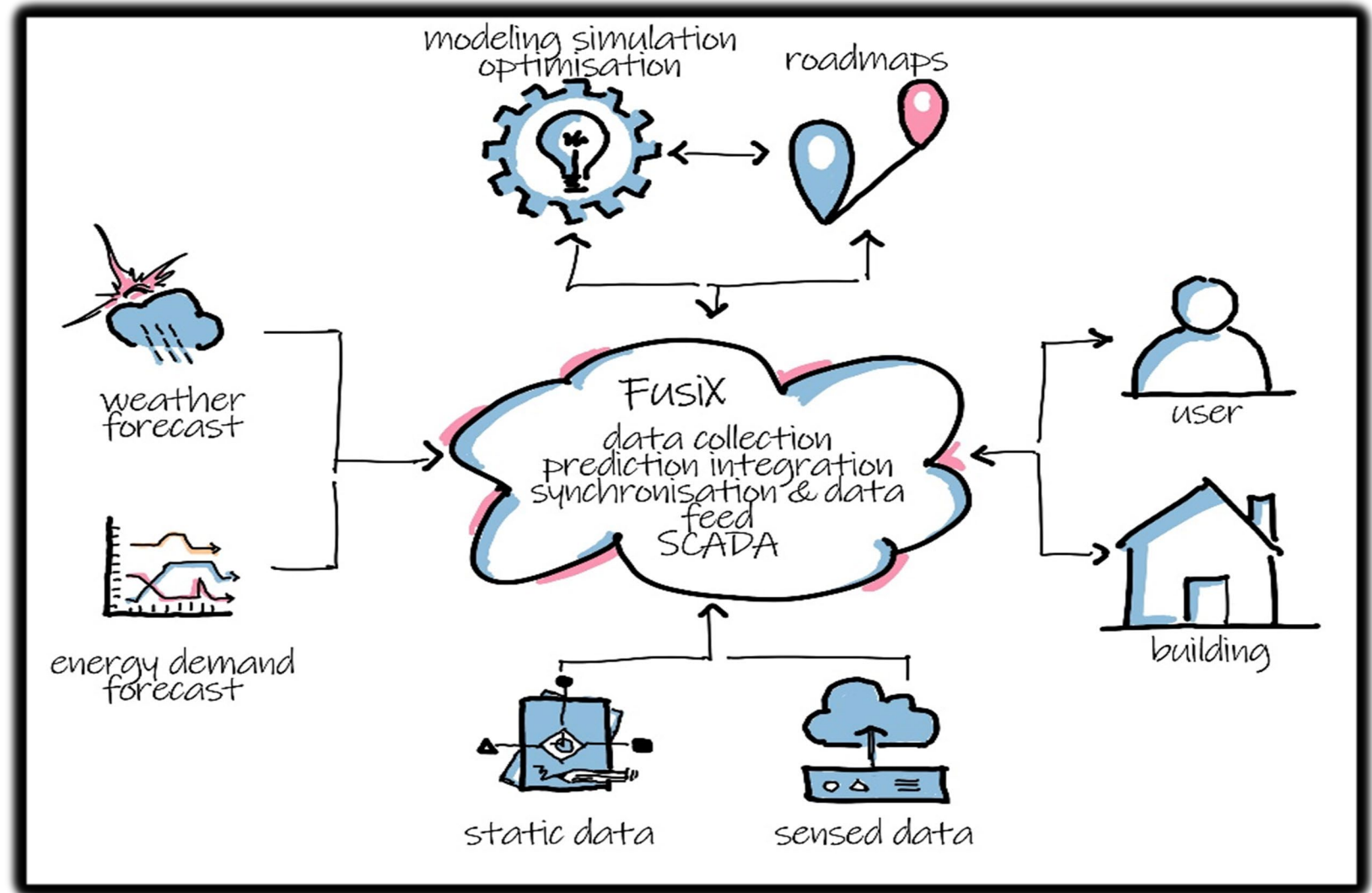
Middleware solution - FusiX
Store and link monitoring and simulation outcome

DEPC protocol for end users (KPIs)

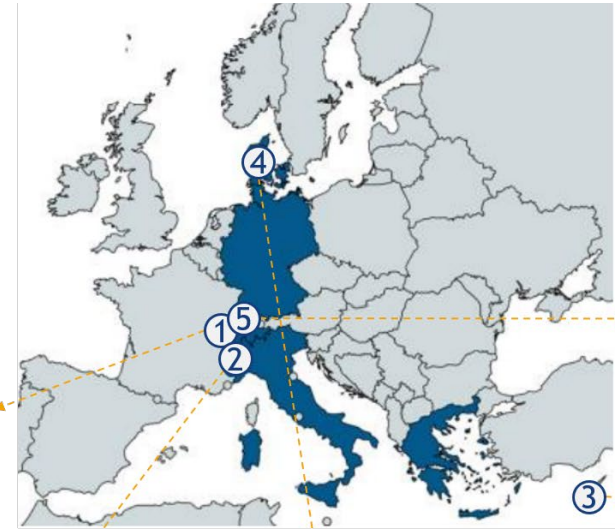
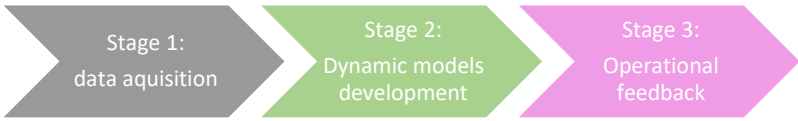
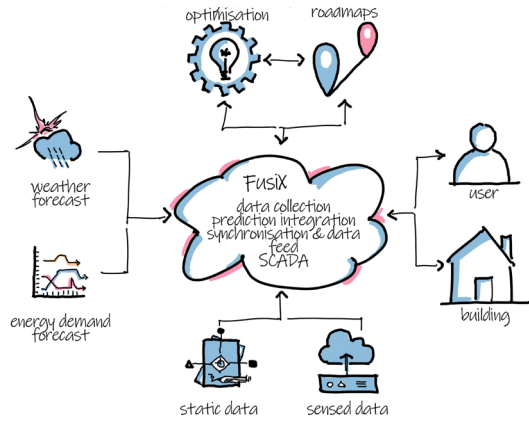
Understand performance gap
Detect operational savings potential
Promote free running

Test the methodology and tools using different real case buildings

Concept



EDYCE Demonstrations



#1 Geneva

Building B1.1 NZEB refurbishment	B1.2 NZEB new building	B1.3 Low energy class building	B1.4 Planned renovation

#2 TPM

B2.1 Kindergarten and Middle school building	B2.2 High school Valdesse	B2.3 Private residential building	B2.4 Private residential building	B2.5 Private residential building (flat)

#4 Aalborg

B4.1 Multi apartment residential – Fredrikshavn	B4.2 Multi apartment residential – Thulevej Aalborg	B4.3 Multi apartment residential – Magisterparken Aalborg

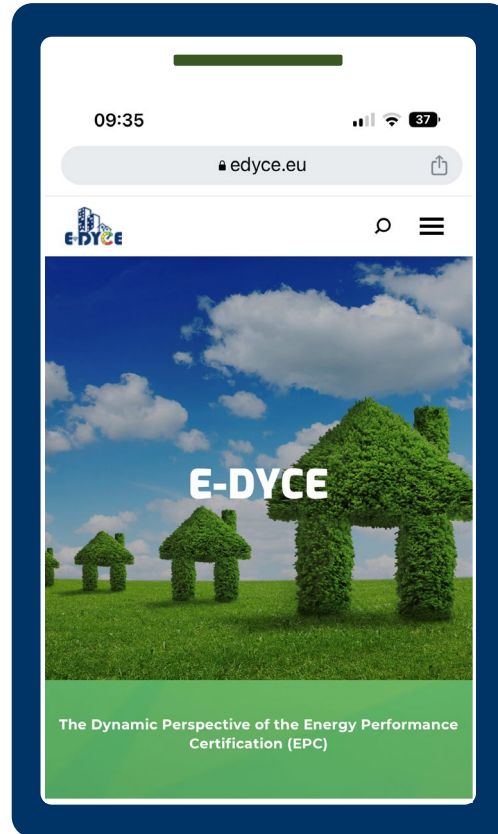
#5 Geneva

#3 Nicosia

Figure 9 buildings of the new Nicosia municipal NZEB quarter recently finished



Energy flexible DYnamic building CErtification



Thank you

for your attention

 **Contact Us** 

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