

Innovative data handling for next-generation Energy Performance Certificates

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Introduction

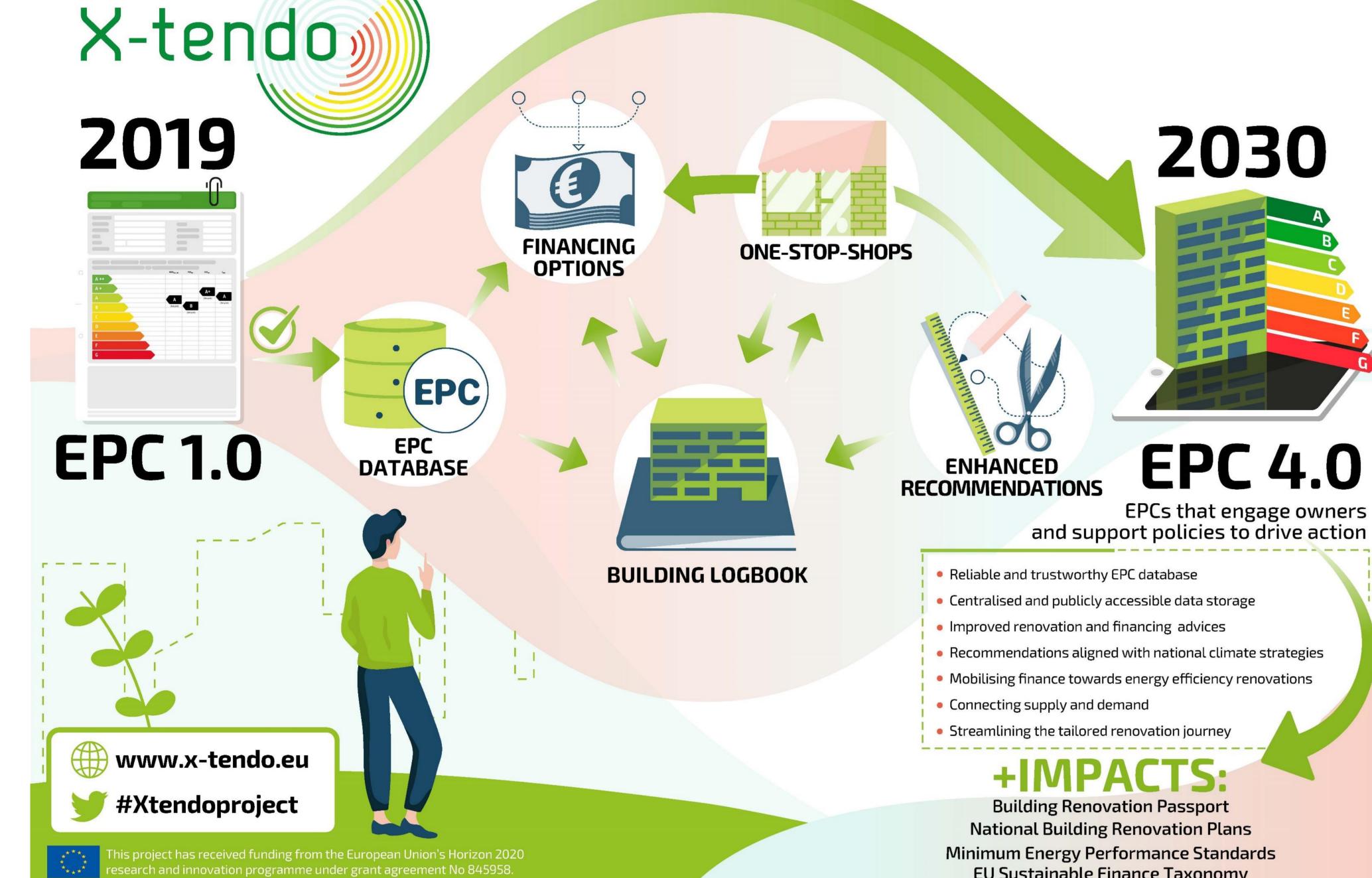
The Renovation Wave Communication published by the European Commission in October 2020 reinforced the importance of the existing EPC frameworks to improve the data gathering, storage, data mining, data analysis and overall quality of EPCs. Furthermore, the Commissions' proposal to recast the Energy Performance of Buildings Directive 2018/844 (EPBD) introduces comprehensive improvements, such as rescaling, design, additional indicators, and the requirement for the certificates to be available in digital format.

UPGRADING ENERGY PERFORMANCE CERTIFICATES (EPCS) TO THE NEXT GENERATION



Data handling principle

Over the time, the EPC should evolve from a static to a dynamic instrument. This



evaluation will enable that the instrument turns from a building energy label into a instrument that, on one hand engages and supports building owners in their renovation process and, on the other hand, supports public authorities to drive policy actions. The logbook has a key role in this process, by storing the building related information over the time, in a dynamic way – as today EPC's validity is 10 years (which may change to 5 years in the case of a low class EPC in the new EPBD revision) and the information remain outdated for a long time. The logbook is also the link between different features. However, it does not mean that in a national context, the other features may interact between each other.

A risk-based quality control routine of EPCs (before they are logged into the database and also after that) guarantees that not-valid

EU Sustainable Finance Taxonomy

Figure 1: Innovative Data Handling

EPCs are easily identified and manually corrected. It also guarantees that correct EPC information is stored in the logbook.

EPC databases and building logbooks are a source of information to better design end-user targeted financing schemes. At the same time, the logbook can contain the building user specific financing option and make the access to this information more transparent and ease.

Enhanced recommendations and One-stop-shops are the features directly linked to the deep renovation measures. The enhanced recommendations provide more accurate asset information, specifying some needed measures, their energy as climate impact, non-energy benefits and cost ranges. Complementary to that, the OSS are centralized advice services to support the building owners carrying out there renovation. In this way, the logbook should be able to inform which recommendations are needed and how to perform them correctly.

Data handling features' testing

	EPC databases	Building Logbooks	Enhanced Recommendat ions	Financing Options	One Stop Shops
Feature lead	TU Wien	BPIE	TU Wien	ADENE	ADENE
Austria, EAST					
Denmark, DEA	System-test		In-building test	User and system test	User and system test
Estonia, TREA		User and system test			
Greece, CRES	System-test	User and system test			
Italy, ENEA	System-test				
Poland, NAPE			In-building and system test		
Portugal, ADENE		User and system test		User and system test	
Romania, AAECR				User and system test	User and system test
UK, EST			In-building test		User and system test

Data handling features' methodologies

EPC Databases: Development and implementation of routines able to identify outliers and to validate EPC data

Logbook: Description of core logbook ingredients: (1) data template, (2) functionalities and benefits, (3) and data governance. Proposal for a common X-tendo data model based on available EPC data

Enhanced recommendations: Proposal for automatically-generated buildingspecific recommendations (including economic and non-energy benefits assessment. Proposal for linking to Long-term Renovation Strategies (LTRS) Financing options: Identification of information sources on public financial schemes and closer integration of financing with EPCs **One-stop-shops:** Identification of information sources on public financial schemes and closer integration of financing with EPCs

Project reports

1.Introductory reports of the 10 innovative EPC features (<u>Deliverable 2.3</u>)

2.Description of implementing partners' user needs and detailed technical specifications regarding features on handling and use of EPC data (<u>Deliverable 4.2</u>)

3.Summary of implementing partners' user needs and detailed technical specifications (<u>Deliverable 4.3</u>)

4. Tools, concepts and guidelines for features: building logbook, enhanced recommendations and EPC databases (<u>Toolbox – area per each feature</u>)

Acknowledgements

This work is supported by the H2O2O European Commission Project 'X-tendo' under the grant agreement No. 845958. The content in this poster does not necessarily reflect the opinions of the European Commission.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 845958





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