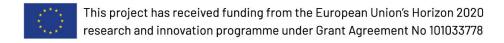


crossCert project

Prof David Jenkins, Heriot-Watt University

Workshop: Designing the perfect EPC 20th March 2024



What is crossCert?

<u>crossCert</u>

- Horizon 2020 Coordination and Support Action
- 11 European countries, 12 partners
- Goal: to guide and test development of Energy Performance Certificates (EPCs) in Europe
- 3 M€ budget
- 3 years (Sep 2021 Aug 2024)
- www.crosscert.eu



What is crossCert?

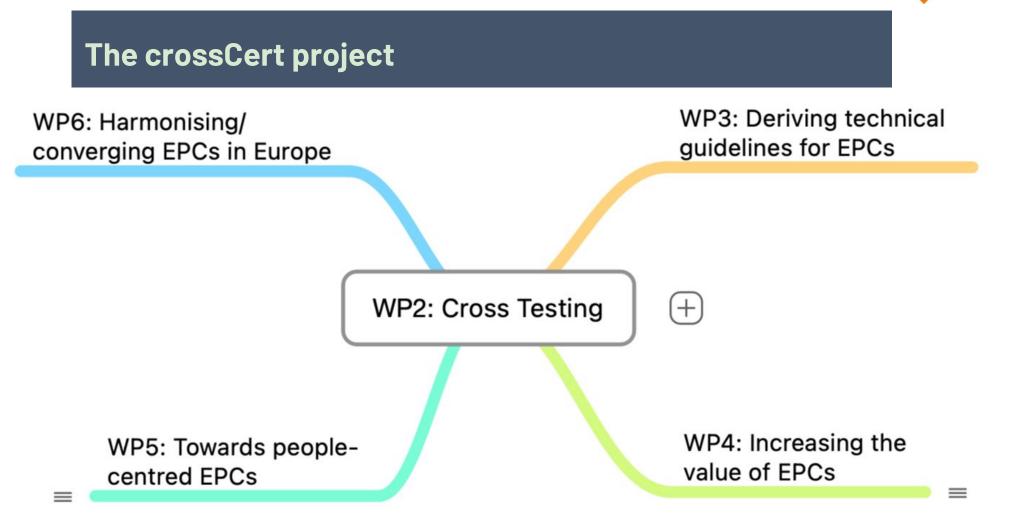


- Testing different methods of energy assessment across different countries
- Guiding the path towards nextgeneration EPCs
- Creating user-centric EPCs
- Investigating the need for EPC harmonisation across countries
- Creating a repository and knowledge exchange centre of building data and information

ES	Universidad de Zaragoza (UZ)
UK	Heriot Watt University (HWU)
SI	Institute for Innovation and Development of University of Ljubljana (IRI UL)
EL	Centre for Renewable Energy Sources and Saving (CRES)
HR	North West Croatia Regional Energy Agency (REGEA)
PL	Polish National Energy Conservation Agency (KAPE)
BG	Center for Energy Efficiency - EnEffect Foundation (ENEFFECT)
MT	Malta Intelligent Energy Management Agency (MIEMA)
ES	Ente Regional de la Energía de Castilla y León (EREN)
DK	Energy Consulting Network AS (ECNET)
АТ	Austrian Energy Agency (AEA)
DE	Climate Alliance (CA)

What can be improved in EPCs in Europe?





An active area...



'Sister' EU-funded projects working on EPC's



Next Generation Energy Performance Certificates H2020 cluster



























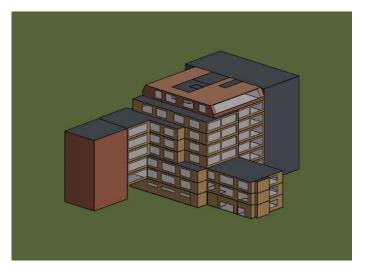
These projects have received funding from the European Union's Horizon 2020 research and innovation programme. The European Union is not liable for any use that may be made of the information contained in the documents prepared by the projects' consortia, which are merely representing the authors' view.

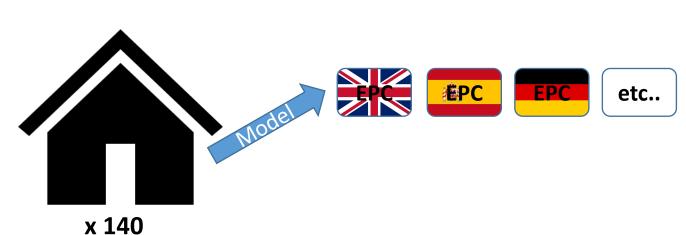
crossCert so far

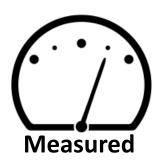


"Cross-tested" sample buildings

- Applying current EPC methodologies to buildings across Europe
- Comparing these to more detailed forms of modelling and real energy consumption
- Tested "next generation" methods against these sample buildings







crossCert so far



Identifying who uses EPCs and why

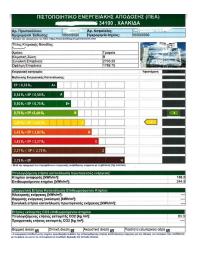
- Many different user groups with different needs
- Range of opinions on what EPCs should be for and what needs improving
- User survey already conducted linked to this workshop

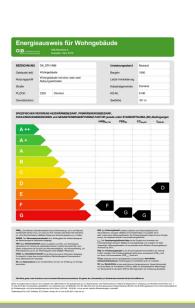


crossCert so far



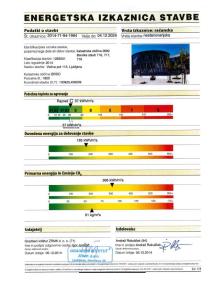
- Investigating barriers to harmonisation of EPCs across Europe
 - Should Europe have one form of harmonised EPC?
 - Do different countries have different needs, or should EPCs allow for comparison across countries?











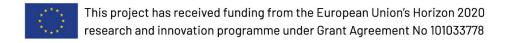
Energy Perform	ance Certificat	e (EPC)		Sc	otland					
40 ALLAN PARK DRIVE, EI	DINBURGH, EH14 1LP									
Dwelling type: Date of assessment: Date of certificate: Total floor area: Primary Energy Indicator:	Type of ass Approved 0	Reference number: 6215-1227-6000-0634-1906 Type of assessment: RoSAP, existing dwelling Approved Organisation: Elimiturs! Boiler and radiators, mains gas								
You can use this document to:										
Compare current ratings of properties to see which are more energy efficient and environmentally friendly Find out how to save energy and money and also reduce CO ₂ emissions by improving your home										
Estimated energy costs	for your home for 3 year	irs'	£5,721		See your recommendations					
Over 3 years you could		£1,284		report for more information						
based upon the cost of energy for	heating, hot water, lighting and ver	ntilation, calculates	using standard a	ssumptions						
Very energy efficient - lower running costs	Current Potentia	Enero	Energy Efficiency Rating							
(0040) A (0040) C	62	taking into costs. The are likely	This graph shows the current efficiency of your home, taking into account both energy efficiency and fasel costs. The higher this rating, the lower your fuel bills are likely to be.							
	ON III				Your current rating is band E (39). The average rating for EPCs in Scotland is band D (61).					
(3-36) (5-35) Not energy efficient - higher running costs	F 39	of the imp	The potential rating shows the effect of undertaking all of the improvement measures lated within your recommendations report.							
Very environmentally friendly - lower CO ₂ o	missions Current Potentia	Envir	onmental I	mpact (CO ₂) Rating					
(8140) (C) (8140) (A)	environm	This graph shows the effect of your home on the environment in terms of carbon dioxide (CO ₂) emissions. The higher the rating, the less impact it has on the environment.								
(10-64)	E 51	Your curr for EPCs	Your current rating is band F (33). The average rating for EPCs in Scotland is band D (59).							
(11-04) (1-05) Not environmentally blendy a higher CO ₂ o	The poter of the imp	The potential rating shows the effect of undertaking all of the improvement measures listed within your recommendations report.								
Top actions you car	take to save money	and make	your home	e more	efficient					
Recommended measures		Indicat	ive cost	Typical s	avings over 3 years					
1 Cavity wall insulation		£500 -	£1,500		£783.00					
2 Floor insulation (suspended fic	or)	£800 -	£1,200		£165.00					
3 Low energy lighting	£	25		£66.00						
A full list of recommended impro savings and advice to help you	vernent measures for your hor sarry out improvements can be	ne, together with found in your re	more informatic commendations	n on poten report.	tial cost and					
To find out more about the rec and other actions you could to wasting energy and money, vi or contact Home Energy Scoti	ke today to stop	PAGE IS THE E ICATE WHICH I NG AND NOT E ACED WITH AN	WUST BE A IE REMOV	AFFIXED TO THE ED UNLESS IT IS						



Workshop: Designing the perfect EPC

Activity description

20th March 2024



Designing a useful EPC



- What information should an EPC provide?
- Key outputs (simple vs comprehensive)
- Detail of recommendations (tailored vs standardised)
- How is output generated (modelled vs measured energy use)
- How should that information be presented?
- Interactive or static
- Forms of presentation (graphs, tables, text etc)
- Length of document

Choose as a group



		Options				
	Category/Feature	1	2	3	4	
Information	A. Choice of outputs	EPC rating and related info (i.e. as required by EPBD)	EPC rating + information available from current assessment	EPC rating + new metrics requiring extra data collection from new		
	B. Improvement recommendations	Part of document in summarised/standardised form	Part of document, specific to the property (e.g. created by assessor)	Not Part of main document and summarised/standardised elsewhere	Not part of main document, specific to the property (e.g. created by assessor)	
	C. Basis of output data	Only modelled estimates	Only measured estimates	Combination		
Aesthetics	D. General format	Online, interactive interface	Paper/PDF	Combination		
	E. Output format (primary form of information)	Graphical	Tabular	Textual	Combination	
	F. Overall length of document(s)	1 page	Multiple page, single document	Multiple documents		

 All options will have an example from a current or proposed future EPC in the provided document

Breakout groups



- Allocated to groups based on type of "users"
- Facilitator will be present to take all notes and help structure discussion
- Be democratic with final choice
 - Disagreements will be noted
- All opinions are anonymous
 - Breakout sessions are not recorded but discussion will be reflected in facilitator notes
- Stay on time (~12mins per "feature")
- Facilitator will report back in next session