



Monica Ardeleanu Ph.D.

Research Director Romania Green Building Council

Iva Merheim Eyre

Project Manager Habitat for Humanity International

Volodymyr Smolii

Project Manager Association "Energy Efficient Cities of Ukraine"



Can it be fast?

Can it be perfect?

Can it be affordable?

Brief History

Pilot Test - 2007

Green Homes certifications with Green Building Councils

Formation of consortium

SMARTER project implementation

May 2019 – November 2021

SMARTER4EU project implementation

June 2023 – May 2025

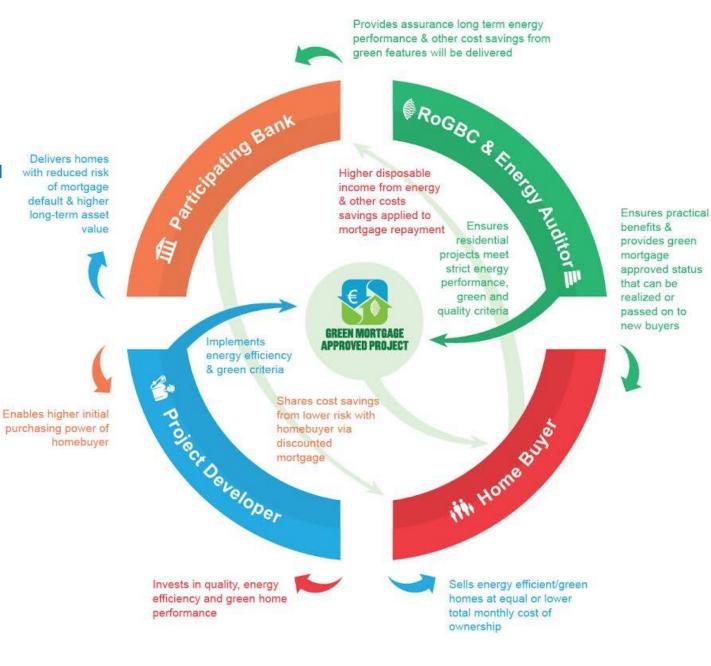


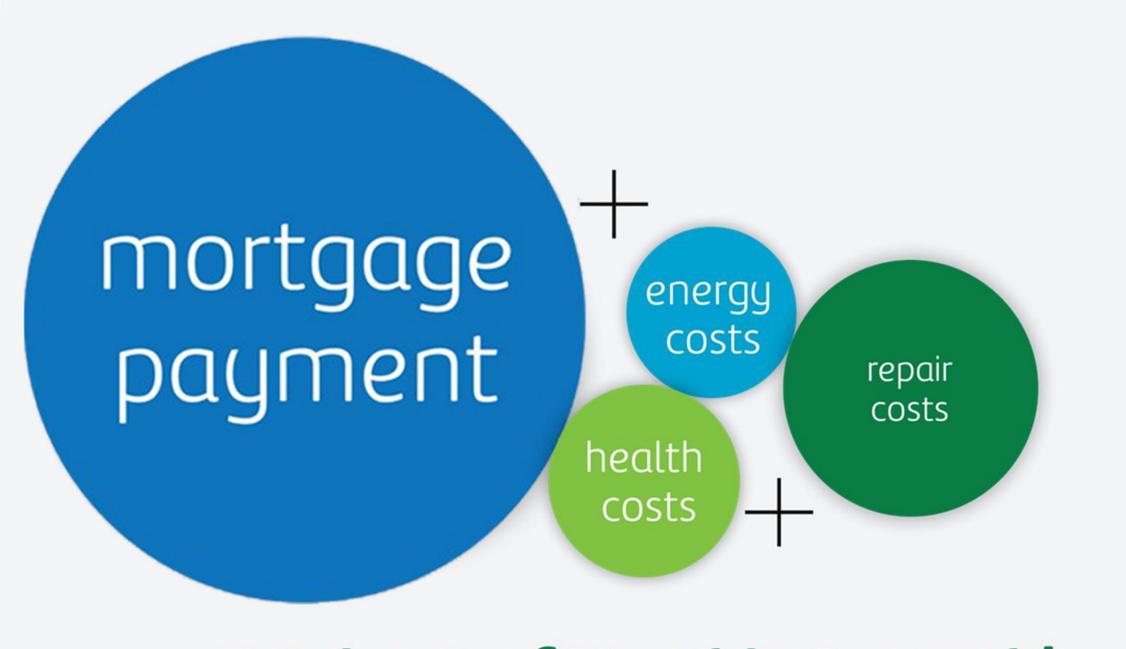
This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 847141





What is a Green Mortgage?



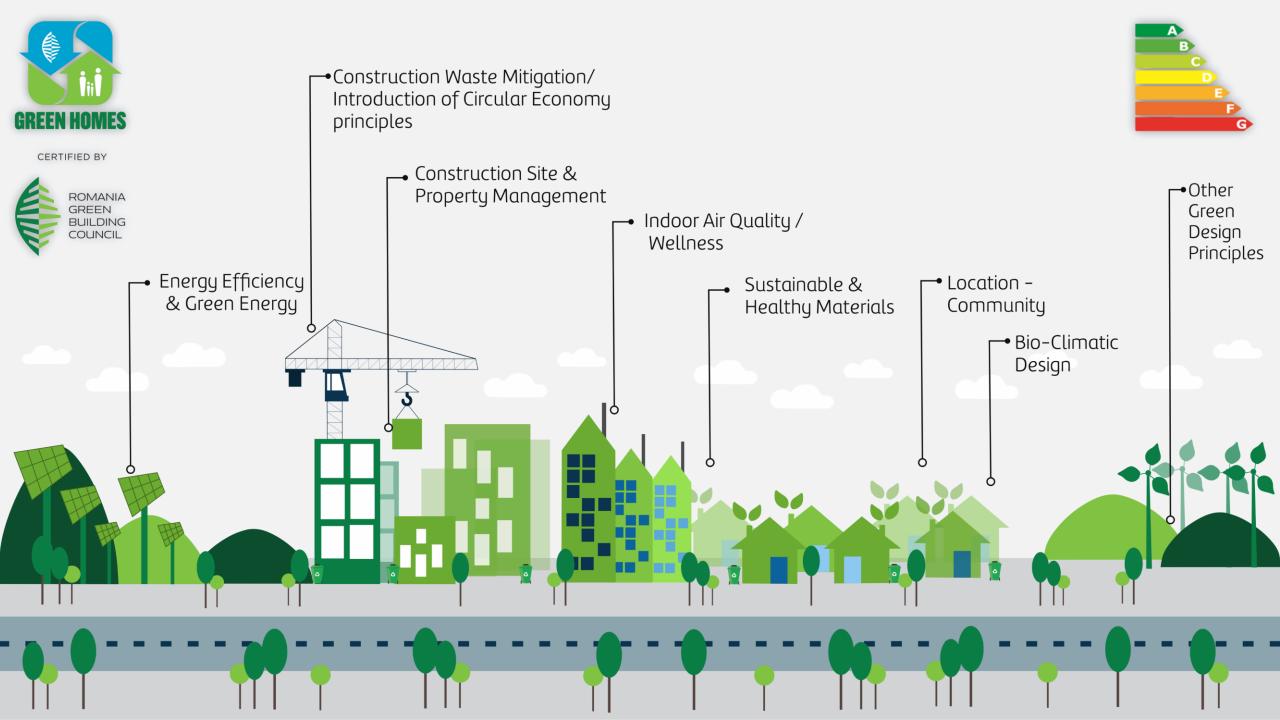


Total cost of Monthly Ownership

NET SAVINGS WITH GREEN MORTGAGES (in Euros)*	EPC "B"	Green Homes
Sales price of 70 sqm apartment with Value Added Tax	98,000	105,000
Loan amount with 15% down payment	83,300	89,250
Monthly mortgage payment	632	665
Cost of energy/apartment/month (€)	183	57
TOTAL COST OF MONTHLY OWNERSHIP: MORTGAGE + ENERGY	815	722
Net monthly savings for certified Green Homes versus "B" apartment		126
Net annual savings for certified Green Homes versus "B" apartment		1512

In the case of a fixed rate for the first 5 years, over a 25 years amortisation period:

2,27 monthly mortgage payments covered by the energy savings resulted from comparing a Green Homes certified home versus a Class B home





CERTIFIED BY







Renovation









A minimum 80% reduction in energy use and minimum 80% reduction of CO₂ emissions











Czech Republic

Georgia



Bulgaria





THE CONSORTIUM

















































SMARTER results and future plans

14 Green Homes & Green Mortgage programs launched

8,500,000,000 Euros of residential project value in the program representing over 32,000 Homes

Extensive research and tools

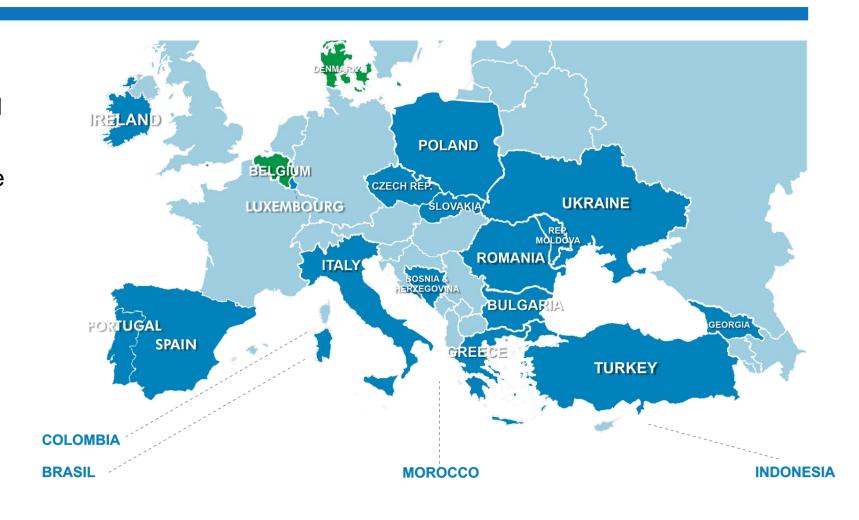
Comprehensive toolkits

Mortgage risk analysis

EU Taxonomy, Level(s), CEN

Standards

Green valuation



Bank Partners













GROUPE SOCIETE GENERALE



Maoiniú Teaghais-Tógála Éireann Home Building Finance Ireland





















Lessons Learned	
Deliverables streamlined	"Minimum Viable Product"
Support each other's communications	Green Home Solution Providers
Challenges	
Raise the level of ambition	Renovations still difficult / especially deep renovations
End customers / citizens not fully aware of the financial and other benefits of green finance or green homes (high energy performance/ reduced energy costs, health, comfort, mental well-being)	Combat greenwashing









Agência para a Energia















Introducing SMARTER4EU!

Hybrid Green Finance Solutions for Vulnerable People

Affordable, high quality, green homes across Europe

Creation of European Centre of Excellence for Green Homes

Hands on assistance for banks, investors, developers, green homes solution providers and citizens

Support for new and existing programmes

Energy and Green Data Collection providing inputs back to essential stakeholders to support green finance

Capacity Building

Training, research, documentation, events

Energy Security

Leveraging public investment and promoting rapid implementation of innovative green finance solutions

How we will reach 100,000,000,000 EUR?



SMARTER Finance for Families	SMARTER 4 EU
2 Banks, small interest in green finance	14 Banks, intense interest in green finance
Basic research	Extensive research
Horizon 2020 support	LIFE Clean Energy Transition programme, Consortium, Other support
Few projects	32K+ Housing Units, 8.5 Billion Euros
No international communication	Extensive international communication
Basic collaboration	Help Desk, Self Service modules, Assistance, European Centre of Excellence
Frozen conflict in region	Monumental energy emergency and need for change in Europe





- Meet or exceed EU Taxonomy building energy requirements
- Use upgraded non-energy green criteria to meet the "Do No Significant Harm" mandate of the Taxonomy
- Utilize the Level(s) frame to evaluate the non-energy green criteria
- October December Certification Task Group review
- 15 January 2024 Launch of aligned certification and criteria

Hybrid Funding - Blending of public and private investments

































ACTIVITIES

- online education courses
- Consultations for concrete
 Pilot projects
- Expanded catalogue of EU based good practice examples
- Let's build green campaign deepens communication between public and private sector

PAST SUCCESSES

- 106 signatures from 14 countries in the Let's build green campaign
- 52 supported municipal staff members
- 40+ registered municipal course participants
- 27 municipal projects consulted

Problems in the energy efficiency of residential buildings sector of Ukraine (before 24/02/2022)



85% of residential buildings were built during the USSR (before 1991)

Energy consumption:

- built before 2007 up to 300 kWh/m²
- 2008-2016 up to 160 kWh/m²

Current legislative norms for new buildings is 68-120 kW/hm2

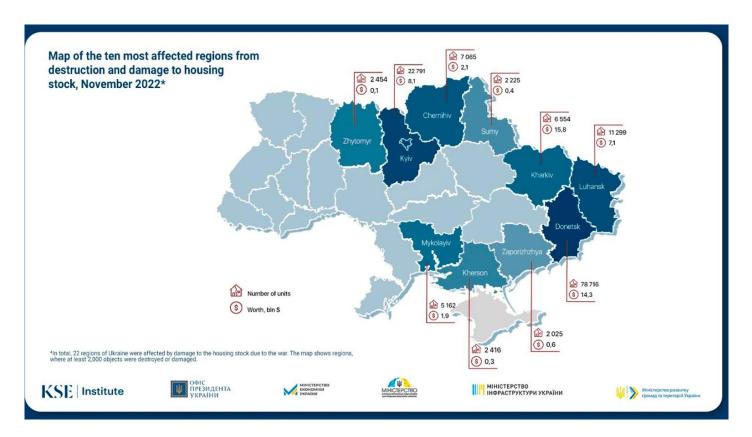


In general, according to the latest estimates, the average energy consumption in the sector of residential buildings in Ukraine was 186 kWh/m2 which is 2-3 times higher in compare with EU countries.





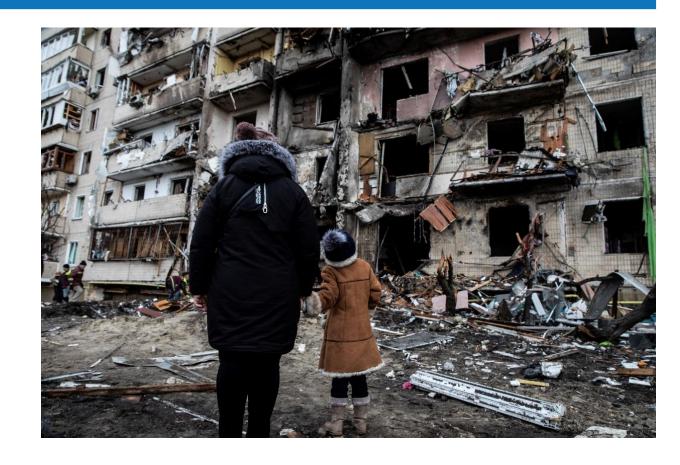
- Damages to the housing stock as of February 2023 – EUR 50 billion valued at replacement cost (KSE report)
- Residential housing stock accounts for 37% of the total damages.
- 153.9 thousand private houses and apartment buildings destroyed or damaged.
- Top five regions most affected by housing destruction: Donetsk, Kyiv, Luhansk, Chernihiv, and Kharkiv
- In the capital city, 348 residential buildings were destroyed or damaged, mainly multiapartment buildings, valued at \$0.9 billion.





Post-war challenges

- 153.9 thousands of houses were destroyed, including more than 18 thousands multiapartment buildings
- 4.9 million people are internally displaced from eastern and southern parts of Ukraine
- More than 50% of these people will need new home





Plan for Ukraine

Solutions are needed immediately, that deliver nZEB performance, and are affordable for citizens, international donors and the Ukrainian national and local governments.

- Proposing the SMARTER4EU and related certification framework for as a ready for immediate implementation tool to achieve nZEB housing
- Launching 2nd edition of Let's Build Green campaign for green finance capacity building in Ukraine and region's municipal sector – 16 October 2023 with 10 participants enrolled
- Provide hands on support through SMARTER4EU help desk and European Centre of Excellence to ensure residential projects can be designed and built to nZEB standards, quickly and with low costs to governments, donors and, most importantly, citizens



Energy security

Residents:

 The ability to consume less energy to provide comfort in homes, and as a result - lower energy bills



Municipal level:

- Prevention of energy poverty at the municipal level
- Possibility to develop self-sufficient municipal energy clusters



State level:

- General decrease of energy consumption level in the sector of residential buildings
- Reducing dependence on the supply of imported energy resources





Capacity Building

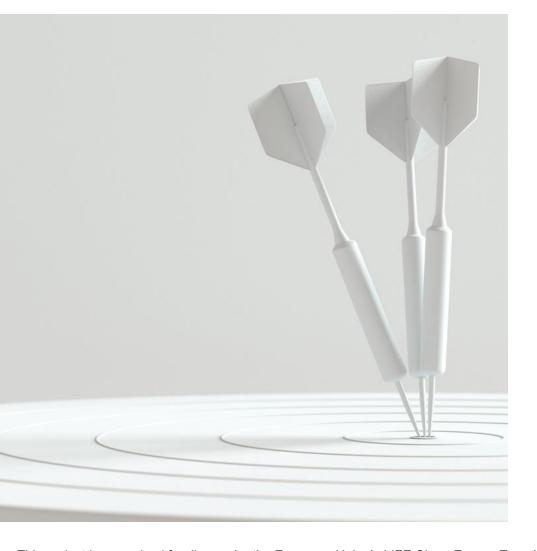


Building the capacity of local authorities (municipalities) in implementation of "green construction" projects

Cooperation with higher educational institutions which train specialists in the fields of architecture and construction

Advocacy for the modernization of national legislation by municipalities and their associations





Thank you

Romania Green Building Council

monica.ardeleanu@rogbc.org

Habitat for Humanity International Europe and Middle East Office imerheimeyre@habitat.org

Association "Energy Efficient Cities of Ukraine" vsmolii@enefcities.org.ua

This project has received funding under the European Union's LIFE Clean Energy Transition programme under Grant Agreement no. 101121060. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

