

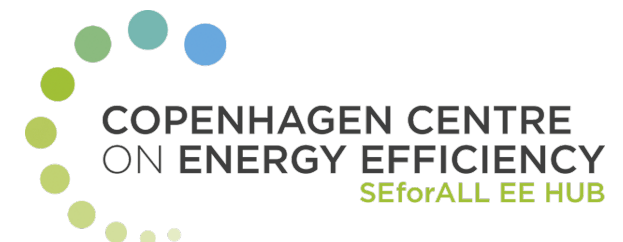


The SMARTER Finance for Families initiative: Consistent Tools for Assessing and Reporting

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Common Frameworks for Sustainable Performance,
Valuation Platform,
Environmental and Economic Impact

Managing Director at CRISCON



Brussels, 29.7.2021 C(2021) 5430 final Commission Notice Technical guidance on the climate proofing of infrastructure in the period 2021-2027

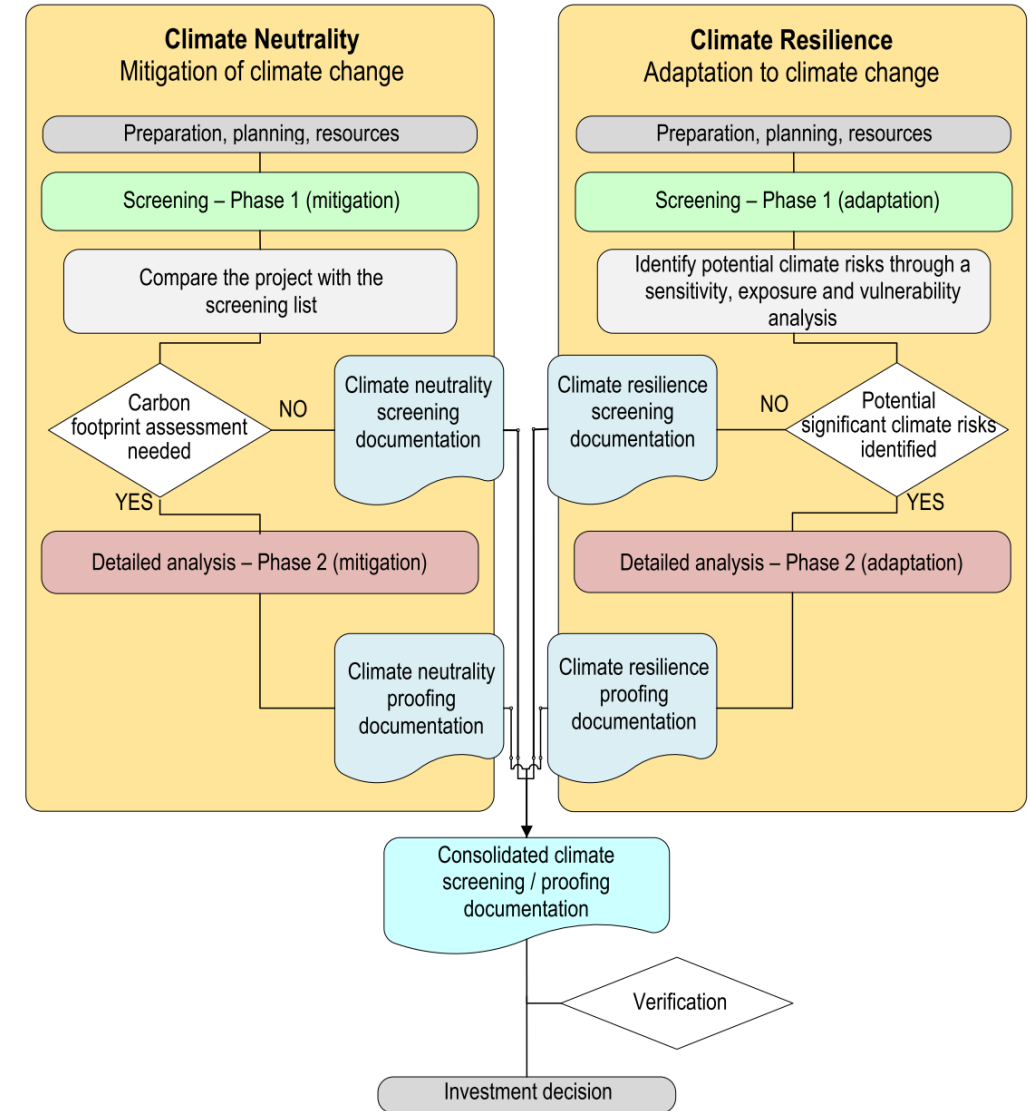
«...buildings, from private homes to schools or industrial facilities, which are the most common type of infrastructure and the basis for human settlement...»

It follows the principle 'do no significant harm', ... enshrined in Regulation (EU) 2020/852 (Taxonomy Regulation).

This guidance addresses two of the environmental objectives in Article 9 of the Taxonomy Regulation, i.e. climate change mitigation and adaptation.

It is reference for **InvestEU Regulation, Connecting Europe Facility (CEF) Regulation, Common Provisions Regulation (CPR) and Recovery and Resilience Facility**

Figure 1: Climate proofing and the pillars on 'climate neutrality' and 'climate resilience'



EU Taxonomy: the 6 environmental objectives



Climate change mitigation

Technical Screening Criteria



Climate change adaptation



Sustainable + Protection
Water + Marine Resources



Transition to circular economy



Pollution Prevention



Protection + Restoration
Biodiversity + Ecosystems

**EU Taxonomy's
four conditions that an
economic activity has
to meet to be
recognized as aligned**

**Comply to
Technical
Screening
Criteria**

**Comply with
Minimum
Safeguards**

**Substantially
contribute**

to at least 1 of 6
environmental
objectives as defined in
the Regulation

**Do No Significant
Harm (DNSH)**

to any of the
other 5 environmental
objectives as defined in
the Regulation

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



Level(s), what is it and why is it important?

Level(s)

European framework for sustainable buildings



European
Commission

Environment

In the context of the global 2030 sustainable development agenda, Level(s) is an **assessment and reporting tool for sustainability performance of buildings**, firmly based on circularity.

It provides a **common language** for the building transformation process in line with the European Union sustainable initiatives.

Level(s) provides the **bridge** between the **ambition** of the European Green Deal initiative on sustainable buildings and the **realities** of professional building operations within the EU.



Macro objectives

Indicators

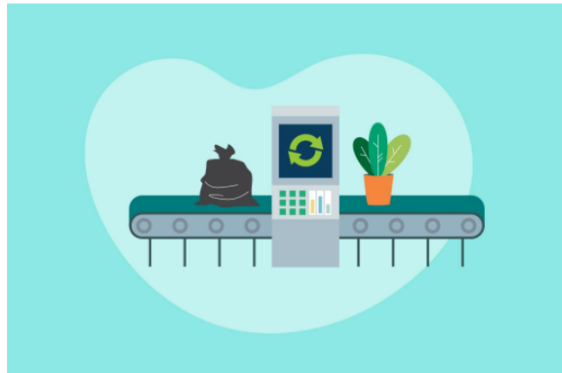


1. Greenhouse gas emissions along a buildings life cycle

Minimize the whole life carbon output, consider both energy consumption during the use phase of the building and embodied energy.

1.1 Use stage energy performance
(kWh/m²/yr)

1.2 Life cycle Global Warming Potential (CO₂ eq./m²/yr)
+ full LCA



2. Resource efficient and circular material life cycles

Optimize the building design to support lean and circular flows, including:

- Building materials use and quantities
- Minimize construction and demolition waste generated to optimize material use
- Replacement cycles and flexibility to adapt to change
- Potential for deconstruction as opposed to demolition

2.1 Bill of quantities, materials and lifespans

2.2 Construction & Demolition waste and materials

2.3 Design for adaptability and renovation

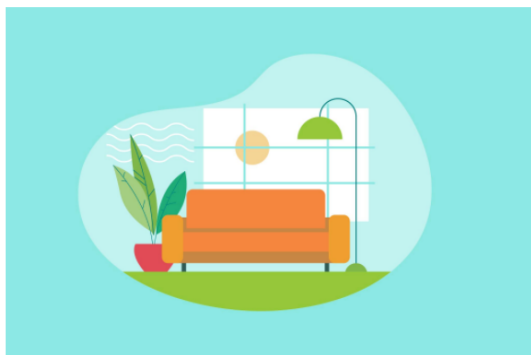
2.4 Design for deconstruction, reuse and recycling



3. Efficient use of water resources

Use water efficiently, particularly in areas of identified long-term or projected water stress.

3.1 Use stage water consumption (m³/occupant/yr)



4. Healthy and comfortable spaces

Create buildings that are comfortable, attractive and productive. This includes four aspects of the quality of the indoor environmental quality:

- The indoor air for specific parameters and pollutants
- The degree of thermal comfort
- The quality of artificial and natural light and associated visual comfort
- The capacity of the building fabric to insulate occupiers from internal and external sources of noise

4.1 Indoor air quality

4.2 Time outside of thermal comfort range

4.3 Lighting and visual comfort

4.4 Acoustics and protection against noise



5. Adaption and resilience to climate change

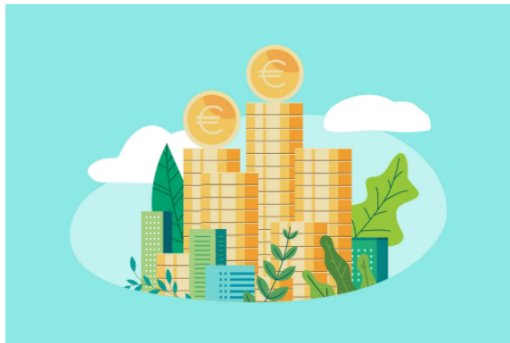
Futureproof building performance:

- Adapt to changes of future climate impacting on thermal comfort
- Make the building more resilient and resistant to extreme weather events (including flooding: fluvial, pluvial and coastal).
- Improve the building design to reduce the chances of pluvial/fluvial flood events in the local area (i.e. increasing sustainable drainage).

5.1 Protection of occupier health and thermal comfort

5.2 Increased risk of extreme weather

5.3 Sustainable drainage



6. Optimised life cycle cost and value

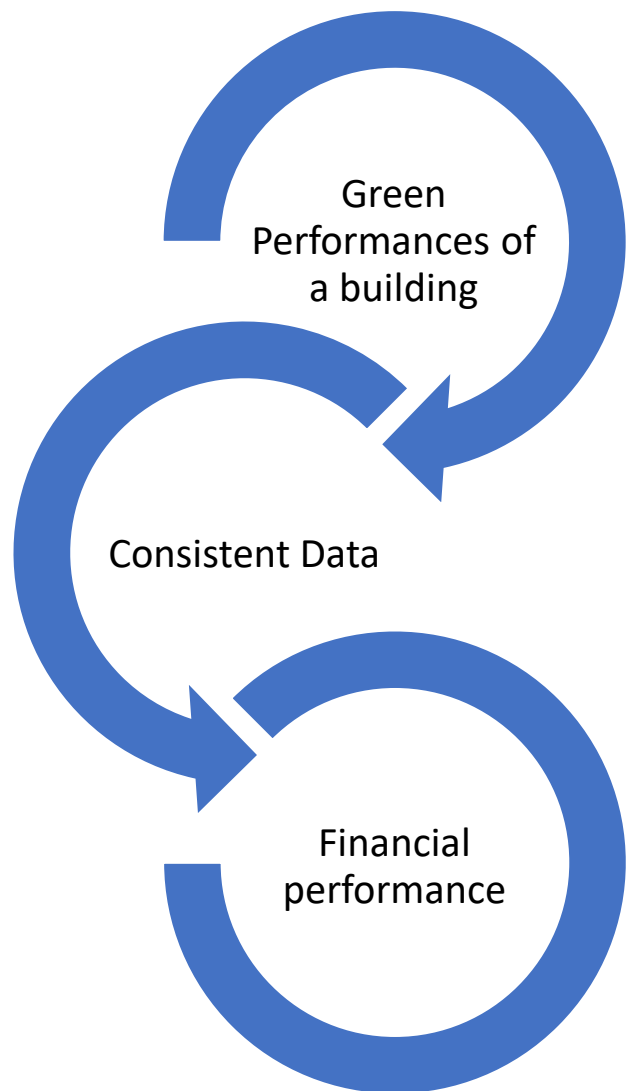
Long term view of the whole life costs and market value of more sustainable buildings, including:

- Life cycle costs (construction, operation, maintenance, refurbishment and disposal).
- Encourage the integration of sustainability aspects into market value assessment and risk rating processes and ensure that this is done as informed and transparent as possible.

6.1 Life cycle costs (€/m²/yr)

6.2 Value creation and risk factors

Key benefit of a common framework











































































































- Level(s) guides part of the EUT's technical screening criteria used to identify new buildings for sustainable finance.
- International sustainability certification tools are **aligning their schemes** to Level(s), ensuring common EU policy objectives are integrated.
- Level(s) enables those using this framework to report under sustainable frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD) and Global Real Estate Sustainability Benchmark (GRESB) and other frameworks

What is the added value of a SMARTER endorsed residential project compared to well known certifications, nZEB and Passivhaus?

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	SMARTER	BREEAM	LEED	EDGE	nZEB	Passivhaus	LEVEL(s) 
 Energy Efficiency Energy use + CO ₂ emissions							
 Energy Savings							
 Indoor Air Quality Ventilation, VoCs, Radon							
 Water efficiency Water quality + testing							
 Daylight Levels Health + Wellbeing							
 Acoustic Comfort Wellbeing + Comfort							
 Embodied Carbon							
 Improving biodiversity							
 Universal Design Lifetime Homes							
 Connected Location Transport links, facilities, amenities							
 Lifecycle analysis							
 Circular Economy Design for reuse							
Nationally adapted Data fed back into national policy							



Climate change mitigation



Sustainable + Protection
Water + Marine resources



Transition to circular economy



Climate Pollution prevention + control



Protection + Restoration
Biodiversity + ecosystems



Health & Wellbeing



Fully considered



Partially considered



Not considered

DENMARK

IRELAND

BELGIUM

POLAND

CZECH REP.

SLOVAKIA

UKRAINE

ITALY

BOSNIA & HERZEGOVINA

ROMANIA

BULGARIA

GEORGIA

GREECE

TURKEY



"SMARTER Finance for Families – Improving Citizens' Health Comfort and Financial Well-being by Supporting Banks, Residential Investors and Solution Providers with Green Homes and Green Mortgage programs"



D2.05 Recommended Adjustments to incorporate the Level(s) framework prepared for all Implementing Partners

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Level(s) Newsletter

31 July 2020



“Level(s) steadily making its way across EU member states. After visiting Slovenia in the previous newsletter, we now head to Romania to discover the ‘SMARTER Finance for Families@ H2020 project and their Green Homes Green Mortgages initiative”

Romania Green Building Council and CRISCON

Level(s) v1 - Oct 2020

Preliminary overview of valuation and risk rating relevant information (and value) provided by the assessment + rating framework.

IF Level(s) is embedded into a third party, credible certification, this information (and the quality of backing data and processes) are independently verified.

Macro-objective 1:
Greenhouse gas emissions along a buildings life cycle



Macro-objective 2:
Resource efficient and circular material life cycles



Macro-objective 3:
Efficient use of water resources



Macro-objective 4:
healthy and comfortable spaces



Macro-objective 5:
Adaptation and resilience to climate change



Macro-objective 6:
Optimised life cycle cost and value



Table 4.1 Potential influence of each Level(s) indicator on a property valuation or risk rating

Level(s) core indicators	Potential influence on future revenue and exposure to risk		
	1. Increased revenues due to market recognition and demand	2. Reduced operation and maintenance costs	3. Future exposure to the risk of increased overheads or loss of income
1.1 Use stage energy consumption	✓	✓	✓
1.2 Life cycle Global Warming Potential + full LCA	✓		
2.1 Bill of quantities, materials and service lives		✓	✓
2.2 Construction & demolition waste and materials		✓	
2.2 Design for adaptability and refurbishment	✓		✓
2.3 Design for deconstruction, reuse and recyclability			✓
3.1 Use stage water consumption		✓	✓
Cradle to grave Life Cycle Assessment (LCA)	✓	✓	
4.1 Indoor air quality	✓		✓
4.2 Time out of thermal comfort range	✓		
4.3 Lighting and visual comfort	✓	✓	
4.4 Acoustics and protection against noise	✓		
5.1 Protection of occupier health and thermal comfort	✓	✓	✓
5.2 Increased risk of extreme weather events		✓	✓
5.3 Increased risk of flood events		✓	✓
6.1 Life cycle costs		✓	✓
6.2 Property market value and risk exposure	✓		✓

Level(s) v1 and the EU Taxonomy 2020

Definitions, criteria, requirements

- **EU TAXONOMY 2020: 6 Environmental Objectives (EO)**
 - (a) **climate change mitigation**; (TSC)
 - (b) **climate change adaptation**; (TSC)
 - (c) the sustainable use and protection of water and marine resources;
 - (d) the transition to a circular economy;
 - (e) pollution prevention and control;
 - (f) the protection and restoration of biodiversity and ecosystem
- Sustainable Economic activities (incl. construction) contribute substantially to one or more of the environmental objectives and do not significantly harm any of the others, by complying to (available) technical screening criteria and thresholds
- E.O. a) and b) now have full technical screening criteria (TSC), and DNSH applies to all others
- Further TSC are coming, for E.O. c) to f) and to improve a) and b) (e.g. embodied carbon), under a dynamic approach

Today, Level(s) can and should be used for (in use) energy and emissions, climate change adaptation (and resilience to increased weather loads), sustainable water use, efficient use of resources, reuse and recycling, pollution prevention during and after erection and control for hazardous contaminants and more generally indoor air quality. It goes far beyond the Taxonomy in many ways, especially via a full LCA and GHG approach and on Health and Comfort. Most urging update to the EUT, given the climate change mitigation goals, should likely be to embed GWP and at least upfront carbon.

Macro-objective 1:
Greenhouse gas emissions along a buildings life cycle



1.1 Use stage energy performance

1.2 Life cycle Global Warming Potential
+ full LCA

Macro-objective 2:
Resource efficient and circular material life cycles



2.1 Bill of quantities, materials and lifespans

2.2 Construction & demolition waste and materials

2.3 Design for adaptability and renovation

2.4 Design for deconstruction, reuse and recycling

Macro-objective 3:
Efficient use of water resources



3.1 Use stage water consumption

Macro-objective 4:
healthy and comfortable spaces



4.1 Indoor air quality

4.2 Time outside of thermal comfort range

4.3 Lighting and visual comfort

4.4 Acoustics and protection against noise

Macro-objective 5:
Adaptation and resilience to climate change



5.1 Protection of occupier health and thermal comfort

5.2 Increased risk of extreme weather events

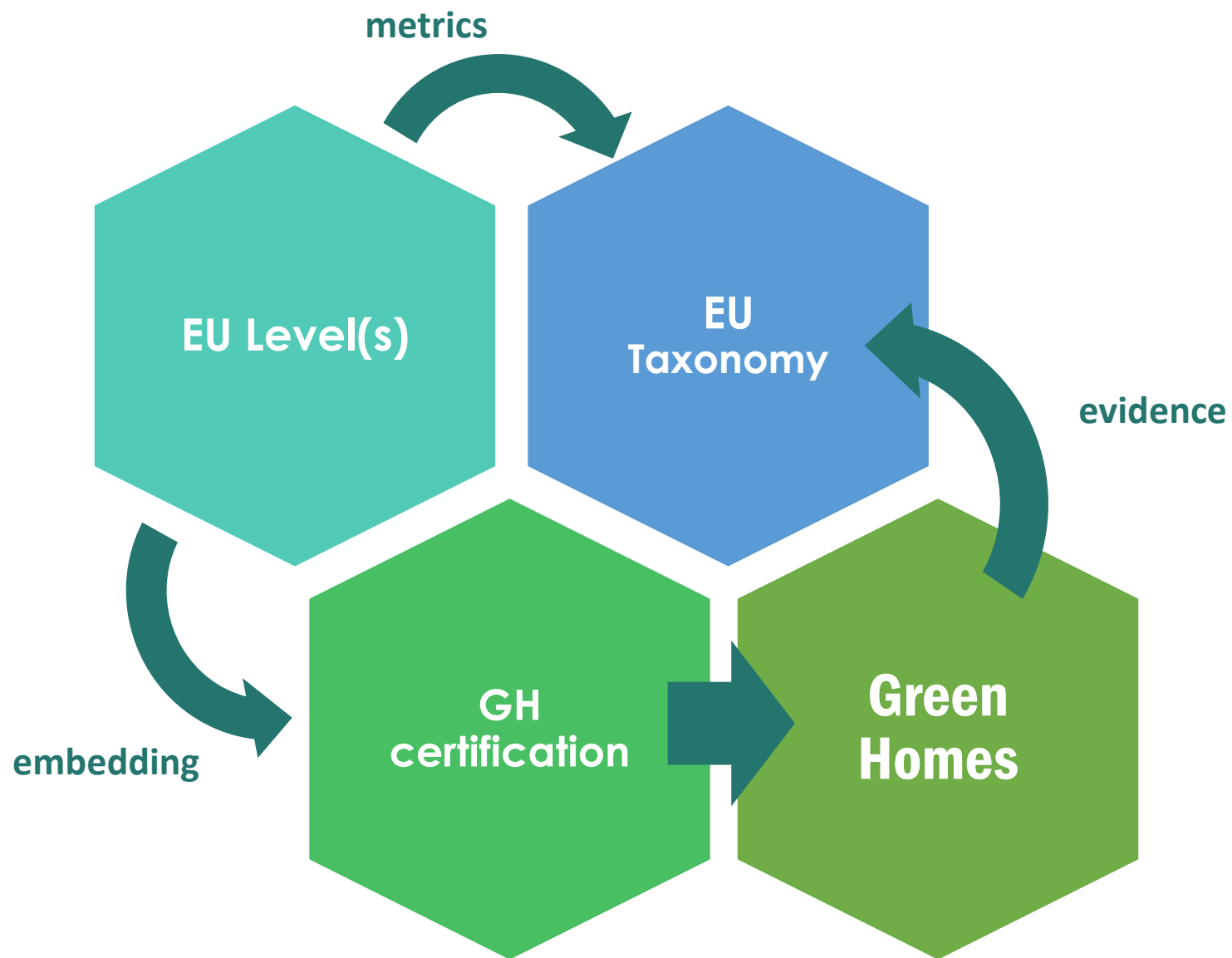
5.3 Increased risk of flood events

Macro-objective 6:
Optimised life cycle cost and value



6.1 Life cycle costs

6.2 Value creation and risk exposure



Level(s), EU Taxonomy, GH Certification

GHs show third party, independent, credible transparent (technical) verification, EU aligned

What happens «in operations»? References and practice



An open-source initiative to up-scale energy efficiency investments in Europe through the improved sharing and transparent analysis of existing projects in Buildings and Industry



DEEP
DE-RISKING ENERGY
EFFICIENCY PLATFORM



EMF
EUROPEAN MORTGAGE
FEDERATION



EeDaPP
Energy efficiency
Data Protocol
and Portal

The EeDaPP Project intends to deliver large-scale, granular technical and financial data related to energy efficient mortgages by way of a standardised data protocol to be accessed through a common, centralised portal.

Beyond certification, SMARTER's Implementing Partners acquire running data from GREEN HOME to monitor performance and ensure robustness of certification programs, update the ratings and, eventually, gather large consistent amount of data to assess impact and improve.

These data typically are energy consumption for each carrier and costs, water consumption and costs, renewables shares and impact, annual maintenance costs.

Thank you, any questions?

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Coordination & Support program under grant agreement no 847141

