



# Trends towards the simplification of ESG reporting

Venice, 24 September 2025



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European Union





# Today's Speakers



**Marco Angheben**  
Head of Business Development  
& Regulatory Affairs  
European DataWarehouse

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**Vincent Mahieu**  
Head of Energy Efficiency  
& Regulatory Technology  
Hypoport

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**Cátia de Almeida L. Alves**  
Sustainability & Corporate  
Social Responsibility Director  
Union de Créditos Inmobiliarios

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**Martijn Breed**  
Senior Legal Counsel  
Nationale - Nederlanden

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**Valentina Belli**  
Aria S.p.A.

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**Corrado Fiscale**  
Partner  
Bird & Bird

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**Marco Mosanghini**  
ESG Manager  
Cherry Bank

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**Michele Costola**  
Researcher  
Ca' Foscari University

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**Anna Marucci**  
Senior Manager Fixed Income  
Listing  
Euronext

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**Gianluca Ginelli**  
Structured Finance Data  
Manager  
European DataWarehouse

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**Pietro Barbini**  
AAV Barbini

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# Agenda

- 14:30**      **Welcome and introduction**
- Marco Angheben, European DataWarehouse & ENGAGE for ESG coordinator
- 14:40**      **Keynote: Accounting for climate and nature**
- 14:50**      **Latest developments on the EPBD IV and the June 2025 European Commission Package**
- Vincent Mahieu, Hypoport
- 15:10**      **The ENGAGE solution for ESG simplification in the building sector**
- Martijn Breed, Nationale Nederlanden (NN Bank)
  - Cátia Alves, Unión de Créditos Inmobiliarios (UCI)
- 15:40**      **Q&A**
- 16:00**      ***Coffee & Culture: The art of Venetian mirror-making by the Barbinis***
- 16:30**      **Fireside chat: The transposition of the EPBD in Italy**
- Marco Angheben, European DataWarehouse
  - Valentina Belli, Aria S.p.A.
- 16:55**      **ESG disclosure implementation in Italy: risks and opportunities**
- **Moderator:** Corrado Fiscale, Bird & Bird
  - Marco Mosanghini, Cherry Bank
  - Michele Costola, Ca' Foscari University
  - Anna Marucci, Euronext
  - Gianluca Ginelli, European DataWarehouse
- 17:45**      **Closing Remarks**



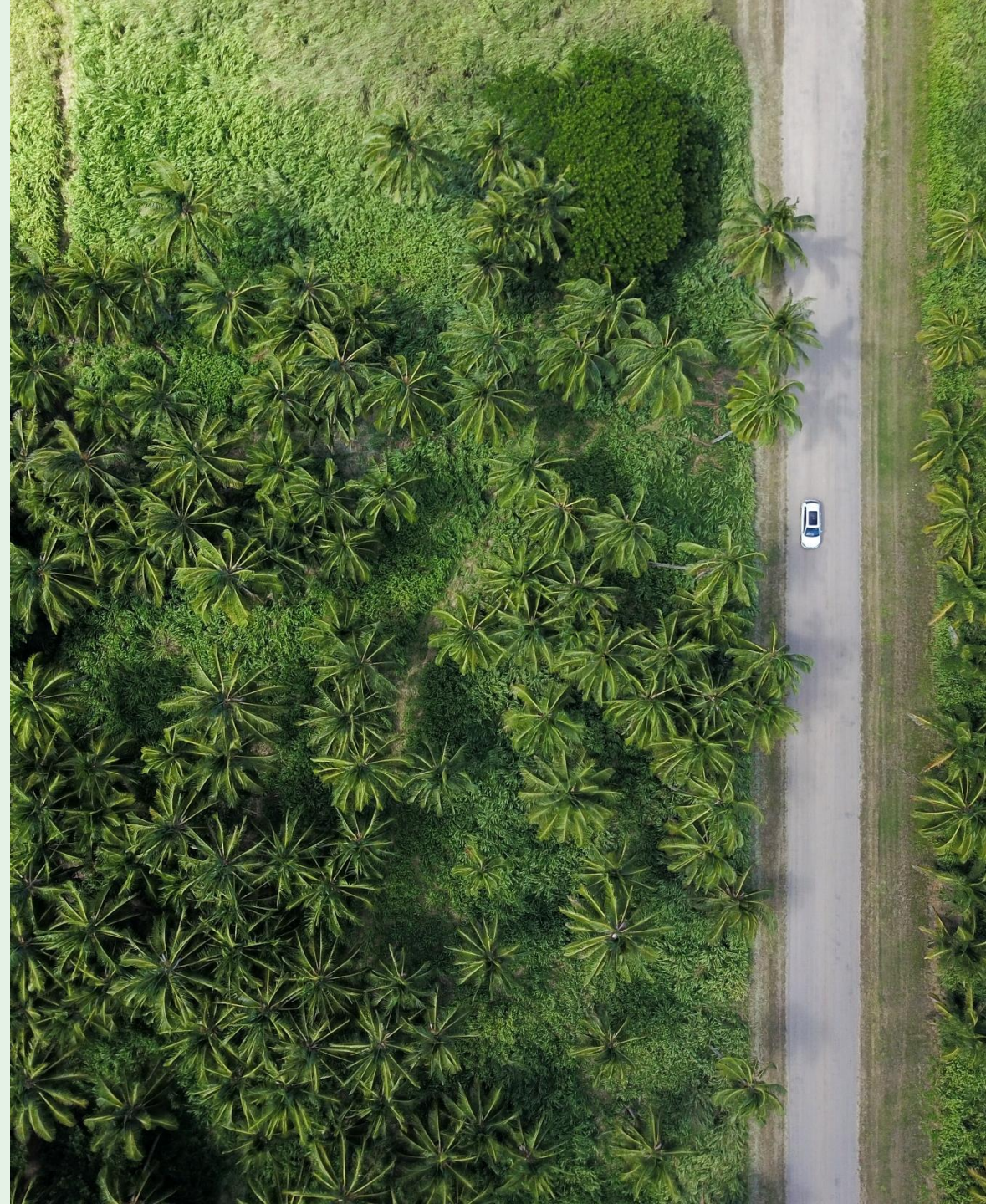




# Welcome & Introduction

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Marco Angheben, European DataWarehouse







# Energy poverty in Italy

Arrears on utility bills	Inability to keep house adequately warm	Dwelling with leaking roof, damp walls or rotten frames
4.1 %	9.5 %	17.1 %

- **4.1%** of the total population was having arrears on their utility bills.
- **9.5%** of the total population was not able to keep their home adequately warm over the cold periods of the year.
- About **17.1%** of the total population was living in a dwelling with leaking floor, damp walls or rotten windows, frames or floor.

Source: Data as of 2023, [European Building Stock Observatory](#)



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# ENGAGE for ESG initiative

**EUROPEAN**  
DATAWAREHOUSE

 **HYPOPORT**

**UCI**

**woonnu**



Università  
Ca'Foscari  
Venezia

  
**DEXAI**  
ARTIFICIAL ETHICS

- Launched in November 2022 and co-funded by the European Union with a LIFE grant.
- The ENGAGE for ESG initiative aims to provide a simple solution for ESG reporting for mortgages and home renovation loans.



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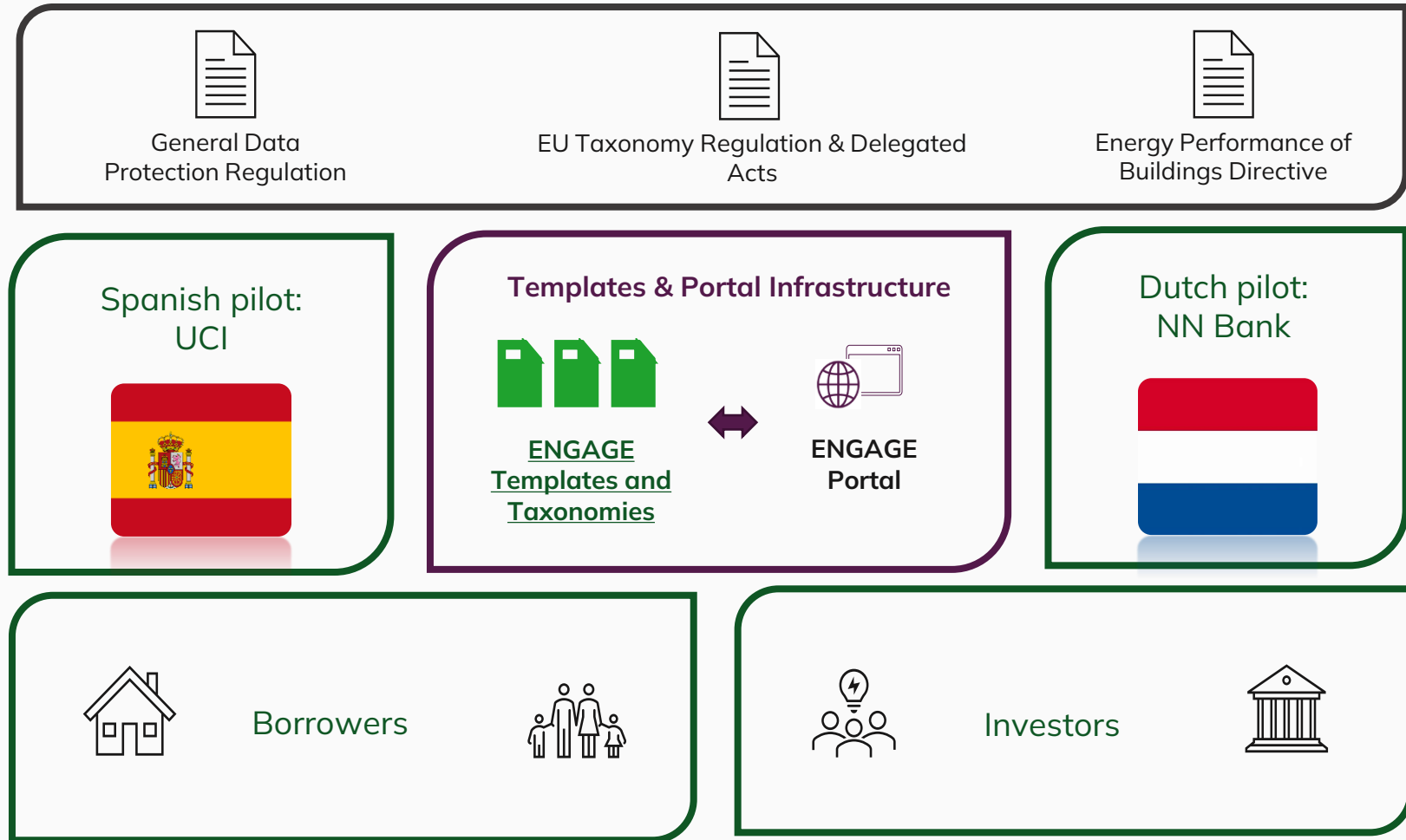




# ENGAGE for ESG initiative description

## Two main pillars:

1. A **disclosure template** for residential real estate data;
2. A **portal** to assess EU Taxonomy alignment and data quality.





# ENGAGE for ESG: a comprehensive solution

*"We do not know what data is needed for EU Taxonomy Alignment"*

*"What data is needed to gain insights into the renovation potential?"*

*"How does this portfolio compare to other portfolios?"*

*"Which portfolio has the best renovation performance?"*

*"We have a mandate to fund EU Taxonomy aligned renovation investments but we have a challenge in identifying eligible investments"*

**Physical risks**

**Green Asset Ratio calculation**

**Transition risks management**







# The ENGAGE Templates key characteristics

The ENGAGE Templates are industry driven standards on a voluntary basis based on two principles

- **Neutrality**

- The ENGAGE Templates have been designed to be agnostic for residential mortgage and home renovation loans.
- The Templates also caters for an unsecured green bond transaction.
- The Templates are flexible enough for covered bond assets or loan portfolios in general.

- **Proportionality**

- The ENGAGE Templates have been designed based on the identification of the necessary data fields, to carry out the EU Taxonomy assessments. In this way it is transparent for users:
  1. Which fields are needed to assess alignment with the EU Taxonomy;
  2. How Taxonomy assessment checks or calculations for alignment are conducted.

All fields in the ENGAGE Templates are conditional:

- This means that they are mandatorily requested to the extent necessary for the performance of the alignment check with the relevant section(s) of Annex I of the Climate Delegated Act.
- Where information is not available, the ENGAGE Templates adopt the ESMA “no data” options.





# The ENGAGE Portal: high level overview

- The ENGAGE Portal enables lending institutions to **upload and assess the alignment of their loan portfolios with the EU Taxonomy**.
- The Portal incorporates detailed **loan and collateral level checks**.
- Access to multiple stakeholders (internal reporting, rating agencies, investors, regulatory supervisors, etc.) upon invitation.
- The ENGAGE Portal allows users to assess multiple portfolios based on the EU Taxonomy.
- The Portal output is twofold:
  1. The **data quality feedback**;
  2. The **EU Taxonomy alignment report**.
- **Trial access** available subject to a standard legal arrangement (available upon request).

The screenshot displays the ENGAGE Portal interface. At the top, the ENGAGE logo is on the left, and navigation links 'LOG OFF | GET IN TOUCH | CHANGE PASSWORD' are on the right. Below the logo, the word 'ENGAGE' is followed by 'for ESG'. The main header area is green with the title 'PROGRAMS' and a 'HOME | PROGRAMS' breadcrumb. The left sidebar shows a list of portfolios: 'Hypoport B.V.' (selected), 'Unión de Créditos Inmobiliarios', and 'Woonnu'. The main content area for 'HYPOPORT B.V. ENGAGE' shows an 'ENGAGE PILOT PORTFOLIO' dropdown. Below this, a table lists portfolio details: Asset type (RMBS), Country (The Netherlands), Status (Current), and Closing date (11-2024). There is a section for 'ENGAGE Data Templates' with a table showing a file 'PoolABC\_2024-10-20.zip' with a 'Download report' button and a date of '10-2024'. An 'Add file' button is at the bottom right of this section. The footer is divided into three columns: 'ENGAGE SOLUTION' (with links: FAQs, DISCOVER ENGAGE, GET IN TOUCH), 'LEGAL INFO' (with links: PRIVACY POLICY, TERMS & CONDITIONS, IMPRINT), and 'LOGIN AREA' (with links: LOGIN, LOGIN REQUEST). At the very bottom, there is a European Union logo, a disclaimer about co-funding by the EU, and a copyright notice for 2022-2024 Engage for ESG Activation Investments.

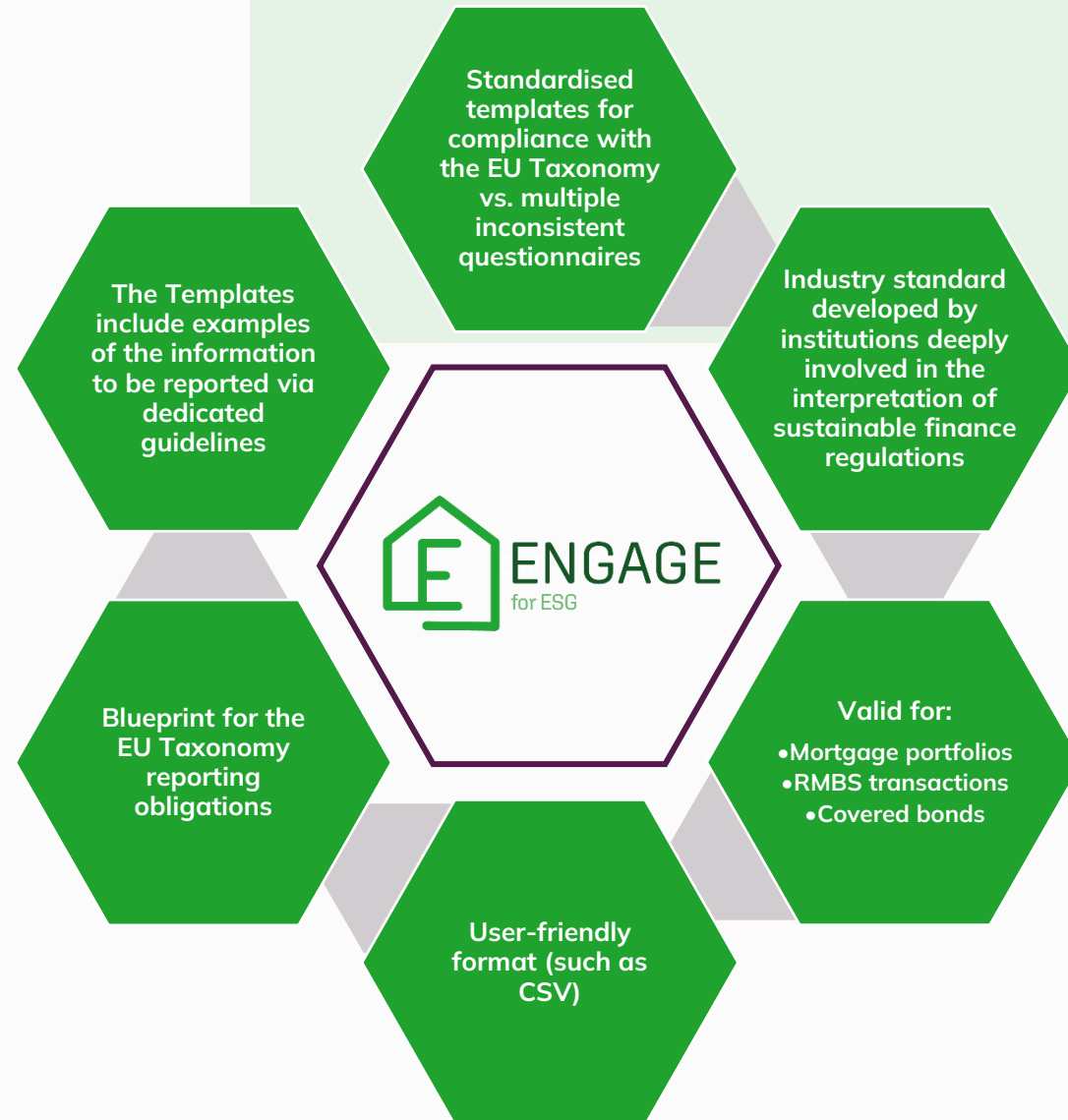


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# Advantages of the ENGAGE Templates and Portal





# The Spanish Intellectual Property Register recognises the originality of the ENGAGE Templates

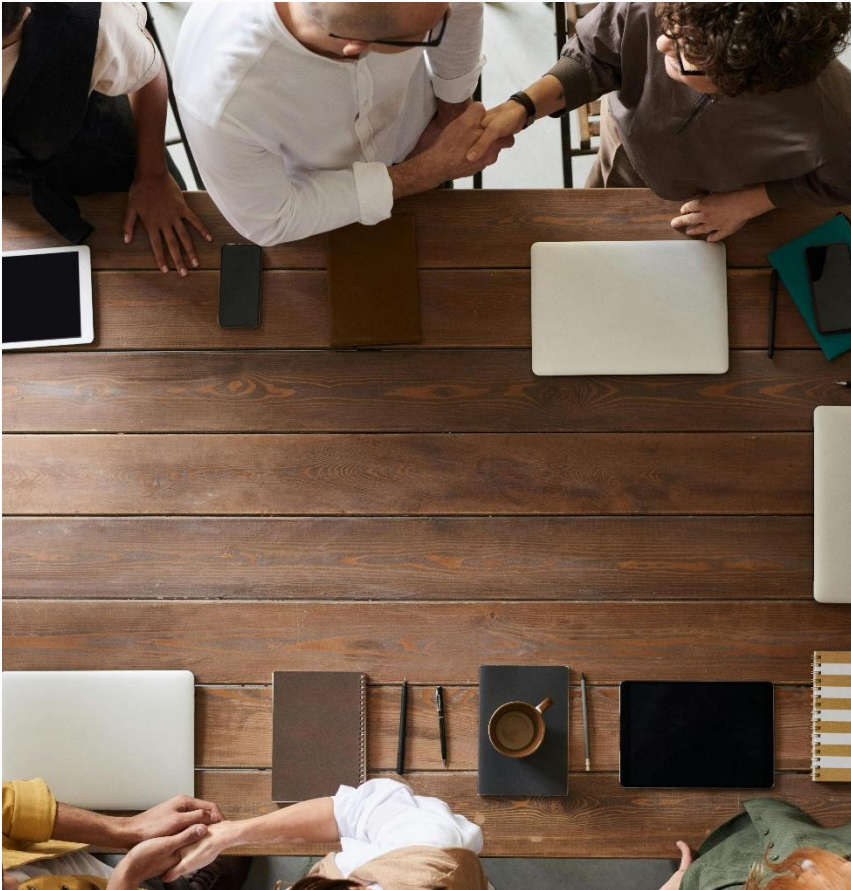
- *In May 2025 the Spanish Intellectual Property Register approved the registration of the ENGAGE Templates, confirming their status as an original and protected intellectual creation.*
- *Developed by European DataWarehouse and Hypoport under the ENGAGE for ESG Activation Investments initiative, the Templates have now received formal recognition, reinforcing their uniqueness as a one-of-a-kind industry standard.*
- *The registration not only recognises the originality of the ENGAGE Templates but also provides a secure foundation for their broader dissemination and use by formally establishing their protected status and validating their credibility as a trusted tool for regulatory compliance and ESG data harmonisation.*







# ENGAGE Expert Group created



- In June 2025 the ENGAGE for ESG initiative set up its Expert Group.
- The newly formed Expert Group brings together prominent representatives from the **European Investment Bank (EIB)**, **Banque de France**, and **Banco de España**.
- The Group will focus on the **optimisation of the ENGAGE Templates and Portal** to serve key stakeholders more effectively and to support the meaningful implementation of the EU Taxonomy Regulation.
- An event is planned **in Paris** in early January 2026.





# Keynote: Accounting for climate and nature

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## SPEECH

# From concept to delivery: accounting for climate and nature in maintaining price stability and keeping banks safe and sound

**Introductory remarks by Frank Elderson, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, at the MNI Webcast on Climate Change: Impact on Monetary Policy and Bank Supervision**

*Frankfurt am Main, 12 February 2025*

Central banks and supervisors are not climate and nature policymakers.

Central banks and supervisors are climate and nature policy takers.

And we face an ever-increasing volume of climate and nature-related factors that we must take into account in order to successfully deliver on our mandate.

This is the fundamental principle that underpins all our climate and nature-related activities at the European Central Bank.

It is a principle grounded in irrefutable facts established by the scientific community and transposed to make their implications clear for the economy and financial system. At the ECB, we have translated this principle into our monetary policy and supervisory work as a strategic commitment to account for the ongoing climate and nature crises, irrespective of shifts in the macroeconomic tides and no matter what direction the political winds may blow.

This is why, both in our monetary policy and in our banking supervision, we have meticulously formulated strategies that are robust and resilient in all weathers. In the face of changing climates, be they macroeconomic, political or indeed at the level of our planetary ecosystem, we will continue to deliver on our mandate to keep prices stable and ensure Europe's banks are safe and sound.

Source: European Central Bank website, <https://www.ecb.europa.eu/press/key/date/2025/html/ecb.sp250212~b69d86d8f2.en.html>







## Frank Elderson, Member of the Executive Board of the ECB and Vice-Chair of the Supervisory Board of the ECB, 12 February 2025

- *To identify climate and nature-related risks, central banks, supervisors and the banks we supervise are reliant on **good data**. Reporting requirements in the EU's sustainable finance framework will improve the **availability of reliable and comparable data** that are needed to identify and manage financial risks. This is essential to ensure that the broader sustainable finance framework can serve its purpose of **unlocking finance for the green transition** and thereby contributing to Europe's competitiveness agenda".*



# Latest development on the EPBD IV and the June 2025 European Commission Package

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Vincent Mahieu, Hypoport





# ENGAGE for ESG Templates version 1.2

TEMPLATE CATEGORY	SECTION	FIELD TYPE	FIELD NAME	CONTENT TO REPORT	NO Options for the BUSINESS BLOCK 0		NO Options for the BUSINESS BLOCK 1		FORMAT
					YES/NO allowed	YES/NO allowed	YES/NO allowed	YES/NO allowed	
0000_ANGELA 2.000	Underlying exposures Information section								
0000_ANGELA 2.000	Underlying exposures list	WBEL1	Unique Identifier	The unique identifier of the transaction.  For structured pool, please use the unique identifier assigned by the reporting entity in its exposure with Annex 1 (1) of Delegated Regulation (EU) .../... (include number of the disclosure (77)).  For unstructured pool, please use the unique identifier code that you have received from the CSDA/CCP platform where you have registered your transaction.	NO	NO			{ALPHANUM 30}
0000_ANGELA 2.000	Underlying exposures list	WBEL2	Original Underlying Exposure Identifier	Original underlying exposure identifier. The identifier must be different from any external classification number, to ensure anonymity of the origin. The reporting entity must not assign the unique identifier.	NO	NO			{ALPHANUM 100}
0000_ANGELA 2.000	Underlying exposures list	WBEL3	New Underlying Exposure Identifier	If the original identifier in field WBEL2 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in WBEL2. The reporting entity must not assign the unique identifier.	NO	NO			{ALPHANUM 100}
0000_ANGELA 2.000	Underlying exposures list	WBEL4	Original Origin Identifier	Original origin origin identifier. The identifier must be different from any external classification number, in order to ensure anonymity of the origin. The reporting entity must not assign the unique identifier.	NO	NO			{ALPHANUM 100}
0000_ANGELA 2.000	Underlying exposures list	WBEL5	New Origin Identifier	If the original identifier in field WBEL4 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in WBEL4. The reporting entity must not assign the unique identifier.	NO	NO			{ALPHANUM 100}
0000_ANGELA 2.000	Underlying exposures list	WBEL6	Date Cut Off Date	The date cut off date for the data submission.	NO	NO			{DATEFORMAT}
0000_ANGELA 2.000	Underlying exposures list	WBEL7	Final Maturity Date	The date when the underlying exposure was transferred into the portfolio. For all underlying exposures in the pool as of the cut-off date in the first report submitted to the reporting authority, this information is not available (enter the date of (i) the closing date of the securitisation, and (ii) the signature date of the underlying security).	NO	NO			{DATEFORMAT}

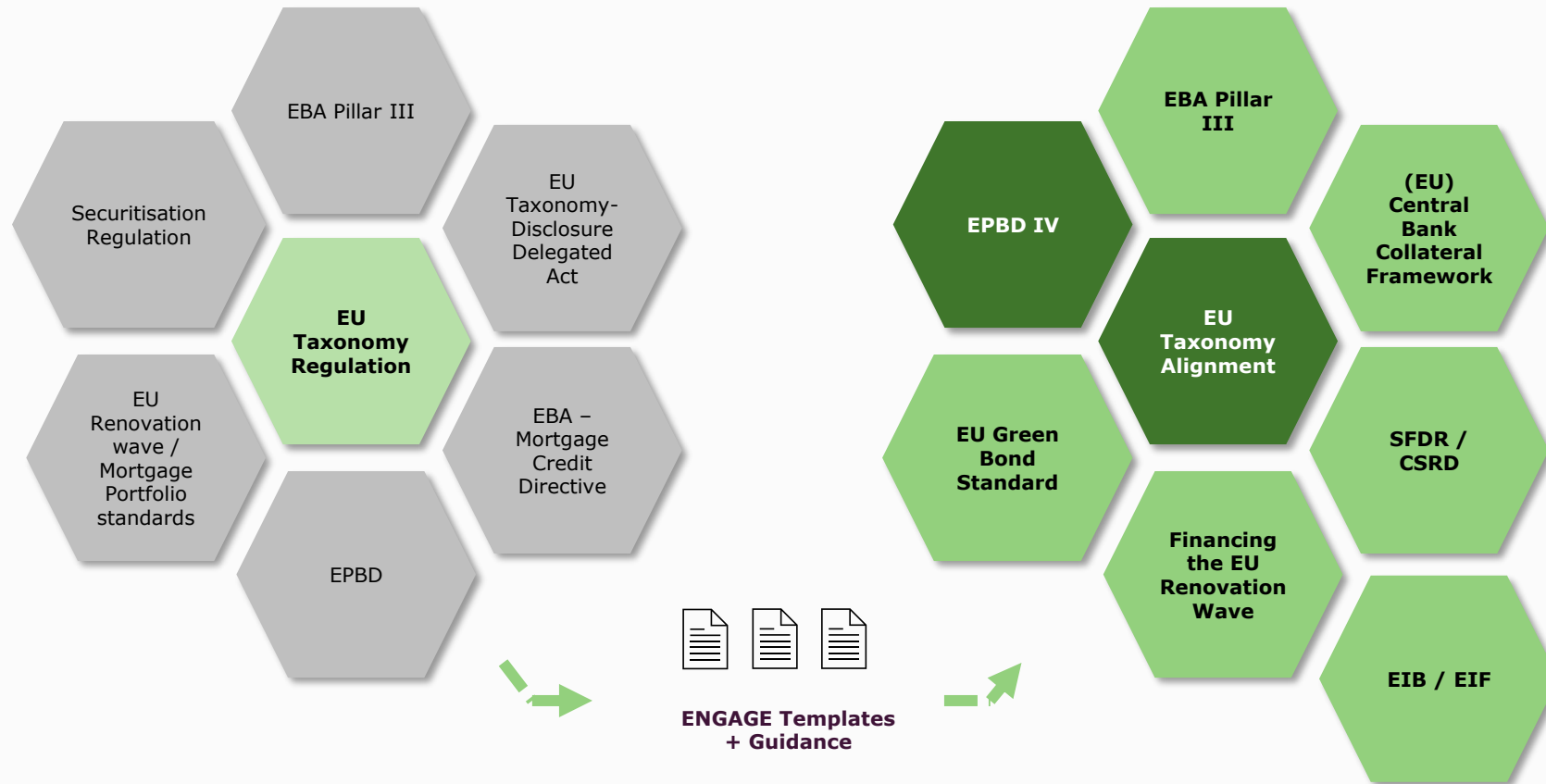
Book a  
One-to-One  
Demo of the  
ENGAGE  
Templates

Contact Us





# ENGAGE for ESG regulatory background



The EU Taxonomy is the common denominator of many ESG regulations



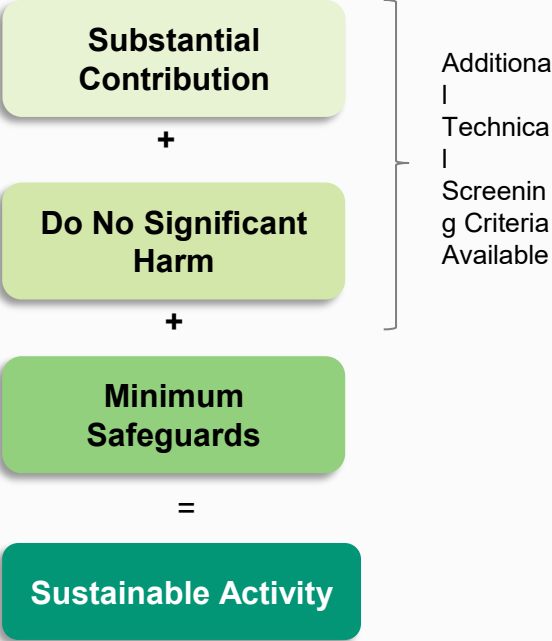
# The EU Taxonomy – Scope for ENGAGE for ESG

**In short:**

- The **EU Taxonomy** is a regulation that constitutes the cornerstone of the EU Sustainable Finance Action Plan.
- The EU Taxonomy provides a **common language** and uniform criteria to identify the extent to which economic activities may be considered environmentally sustainable.
- Its aim is to reorientate **capital flows towards lower-emission economic activities** that will help decarbonize the economy.
- The EU hopes to reach **its 2030 climate targets** and **the ultimate goal of net-zero greenhouse gas emissions by 2050**.
- The EU Taxonomy defines the **minimum criteria that economic activities should comply with in order to be considered environmentally sustainable**.

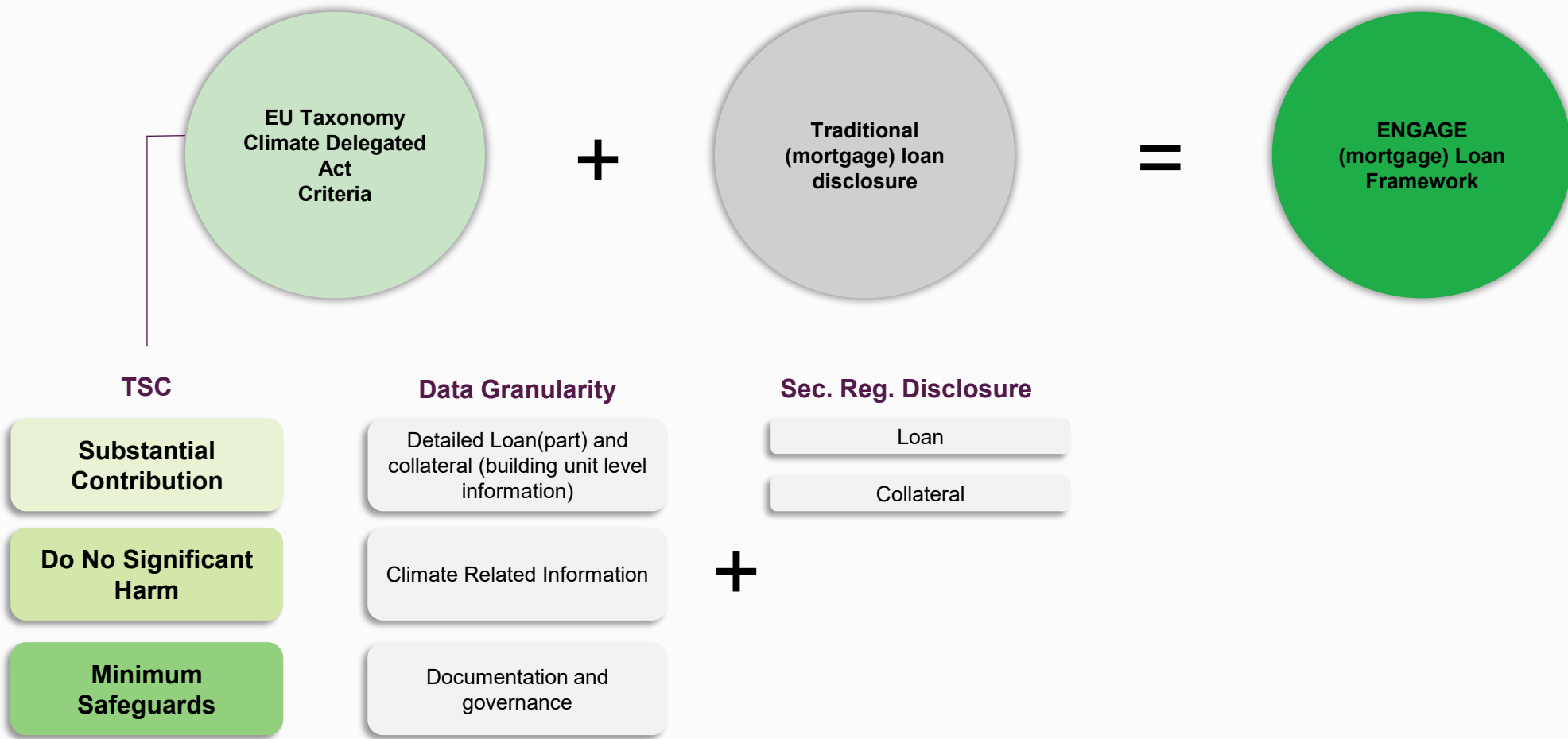


## EU Taxonomy Alignment Steps



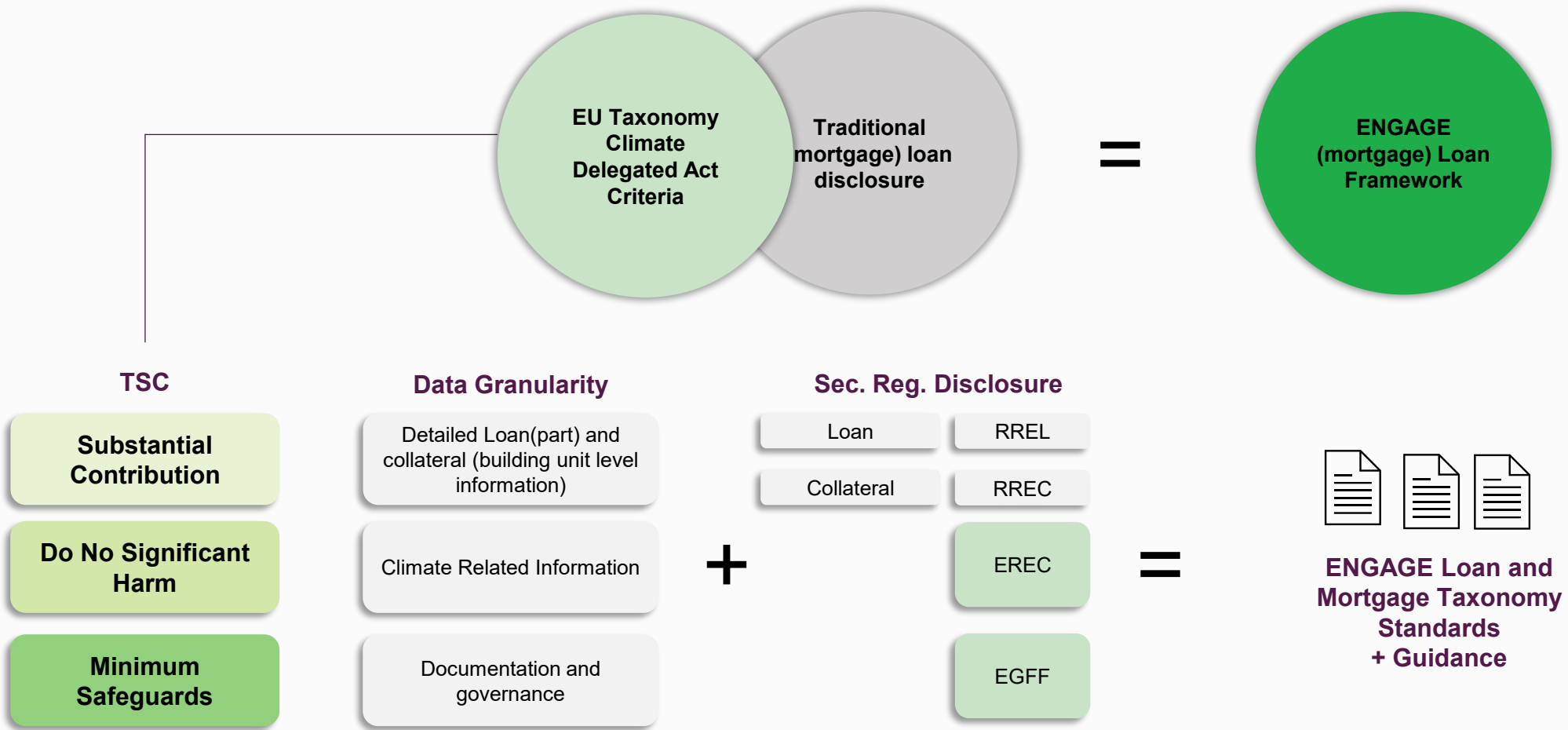


# The Eu Taxonomy – Scope for ENGAGE for ESG





# The Eu Taxonomy – Scope for ENGAGE for ESG



Combining the (implicit) data requirements of the EU Taxonomy with common mortgage loan disclosure format(s).





# The ENGAGE Templates

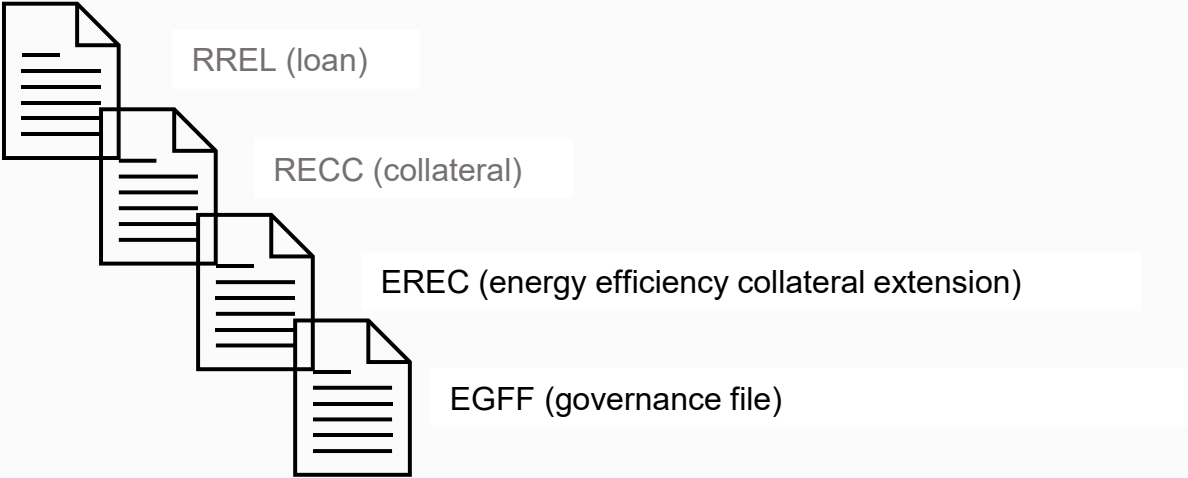
Templates

TEMPLATE CATEGORY	SECTION	FILE TYPE	FILE NAME	FILE SIZE	FILE DATE	FILE STATUS	FILE DESCRIPTION	FILE LOCATION	FILE ACCESS	FILE COMMENTS
ENG-001-01-001-001	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-002	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-003	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-004	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-005	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-006	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-007	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-008	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-009	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-010	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-011	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-012	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-013	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-014	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-015	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-016	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-017	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-018	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-019	General Information	PDF	General Information	100	100	2023				
ENG-001-01-001-020	General Information	PDF	General Information	100	100	2023				

Guiding Documentation



Sample files



Available upon request



# Economic Activities – Scope for ENGAGE for ESG

When developing **version 1.2** of the ENGAGE Templates, the ENGAGE Consortium has considered:

- ✓ Engage data framework is an **add-on to existing market best practices**
- ✓ By **identifying common denominators** among regulatory disclosure templates, financial institutions can simplify and streamline their (often costly) reporting processes.
- ✓ Engage data **framework** is **scalable** and **modular**.
- ✓ **New in ENGAGE Templates v1.2:**

- ☐ SCC 7.1
- ☐ SCC 7.2, 7.3 + 7.6
- ☐ CSRD – Financed CO<sup>2</sup> emissions
- ☐ Annex 6 version for unsecured renovation loans
- ☐ EIB Group Green Checker fields

**In the future the ENGAGE Templates aim to cover relevant elements for EPBD IV and the EU Green Bond Standard.**

		Substantial Contribution	Do No Significant Harm					Minimum Safeguards
			(2)	(3)	(4)	(5)	(6)	
New buildings	7.1	Added in V1.2						v1.1
	7.2	Added in V1.2						
	7.3	Added in V1.2						
Renovations*	7.4							
	7.5							
	7.6	Added in V1.2						
Existing / new buildings	7.7	V1.1						

\*The ENGAGE v1.2 version (Annex 6) focuses only on renovations



# The ENGAGE Templates: how it *works*

## Building Block

- Fields marked with **0** denote the **original ESMA disclosure format**
- Fields marked with **1** indicate the **ENGAGE Add-On** fields

## Fields used for Taxonomy TSC assessment

- Fields with **N** are not optional for the TSC assessment for that economic activity.
- Fields with **Y** are not needed per se for the specific check, for that economic activity.

ND Options for the BUILDING BLOCK 0		ND Options for the BUILDING BLOCK 1				Building block 1: Field Optional for the calculation of:				Building block 1: Field Optional for the calculation of:	
ND1-ND4 allow	ND5 allow	ND1-ND7 allow	ND5 allow	FORMAT	Building block 0: Minimum level fields for	Minimum Safeguards	Section 7.7.1 - EPC class	Section 7.7.1 - Top 15	Section 7.7.2 or 7.1 - PED 10% lower NZI	DNSH 7.7	DNSH 7.1
							N	N	N		
		NO	NO	{ALPHANUM-28}							
		YES	YES	{ALPHANUM-1000}							
		YES	YES	{ALPHANUM-1000}							

We have transparently indicated per economic activity which data fields the ENGAGE Portal applies in the TSC assessment.



# ENGAGE Output: EU Taxonomy Alignment Report

Section	Economic Activity	Subsection
7.1	Construction of new buildings	
7.2(1)	Renovation of existing buildings	Major Renovations
7.2(2)		Reduction of (net) Primary Energy Demand
7.3	Installation, maintenance and repair of energy efficiency equipment	
7.4	Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	
7.5	Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	
7.6	Installation, maintenance and repair of renewable energy technologies	
7.7(1)	Acquisition and ownership of buildings	Buildings built before 31 December 2020: building has at least an Energy Performance Certificate (EPC) class A.
7.7(1a)		Buildings built before 31 December 2020 - Alternative: building is within Top 15%
7.7(2)		Buildings built after 31 December 2020

## New Constructions

## Renovations

## Existing / new buildings

### ENGAGE Output

#### 1. ENGAGE EUT Alignment report

This report provides a comprehensive overview of the portfolio's underlying exposures in the EUT assessment:

- Each (sub) section of the EU Taxonomy's economic activities is broken down into (partial) alignment.
- Offers greater granularity than DDA templates.
- Enables deeper insights into the nuances of the TSC, including SCC and DNSH.

The output is broken down in loans, collateral (building (units) and balance.

#### 2. EU Taxonomy Data Quality report

We have also developed an EU Taxonomy Data Quality report for mortgage loans, offering detailed insights into data completeness and portfolio quality.

We have transparently indicated per EUT economic activity which data fields the ENGAGE Portal applies in the TSC assessment.





# ENGAGE: EU Taxonomy Alignment Report



**Portfolio Name**  
**Portfolio Date (DD-MM-YY)**

Example Portfolio 2024  
01-08-2024

Total # of Loans  
Total # of Building Units  
Total Balance  
TSC passed %

1300  
1100  
€444,600,000.00  
**50.94%**

			TSC assessment*						TSC pass Total Portfolio											
Section	Economic Activity	Subsection	SCC (check passed)			DNSH* (check) passed			TSC Passed (SCC + DNSH)			SCC (check passed)			DNSH (check) passed			TSC Passed (SCC + DNSH)		
			# of loans	# of Building Units	Balance	# of loans	# of Building Units	Balance	# of loans	# of Building Units	Balance	% of all loans	% of total Building	% of total Balance	% of total loans	% of total Building	% of total Balance	% of total loans	% of total Building	% of total Balance
7.7(1)	Acquisition and ownership of buildings	Buildings built before 31 December 2020: building has at least an Energy Performance Certificate (EPC) class A.	460	411	€133,400,000.00	414	370	€120,060,000.00	411	363	€119,190,000.00	35.38%	37.36%	30%	31.85%	33.64%	27%	31.62%	33.00%	27%
7.7(1a)		Buildings built before 31 December 2020 - Alternative: building is within Top 15%	392	301	€113,680,000.00	353	271	€102,370,000.00	349	301	€101,210,000.00	30.15%	27.36%	26%	27.15%	24.64%	23%	26.85%	27.36%	23%
7.7(2)		Buildings built after 31 December 2020	23	22	€6,670,000.00	21	20	€6,090,000.00	21	22	€6,090,000.00	1.77%	2.00%	2%	1.62%	1.82%	1%	1.62%	2.00%	1%
Total			875	734	€253,750,000.00	788	661	€228,520,000.00	781	686	€226,490,000.00	67.31%	66.73%	57.07%	60.62%	60.09%	51.40%	60.08%	62.36%	50.94%

Example of breakdown for Economic Activity 7.1 (Acquisition & Ownership of Real Estate)



# ENGAGE: EU Taxonomy Alignment Report

Portfolio Name		Example Portfolio 2024									
Portfolio Date (DD-MM-YY)		01-08-2024									
Total # of Loans		1300									
Total # of Building Units		1100									
Total Balance		€444,600,000.00									
TSC passed %		50.94%									
		TSC assessment*									
Section	Economic Activity	Subsection	SCC (check passed)			DNSH* (check) passed			TSC Passed (SCC + DNSH)		
			# of loans	# of Building Units	Balance	# of loans	# of Building Units	Balance	# of loans	# of Building Units	Balance
7.7(1)	Acquisition and ownership of buildings	Buildings built before 31 December 2020: building has at least an Energy Performance Certificate (EPC) class A.	460	411	€133,400,000.00	414	370	€120,060,000.00	411	363	€119,190,000.00
7.7(1a)		Buildings built before 31 December 2020 - Alternative: building is within Top 15%	392	301	€113,680,000.00	353	271	€102,370,000.00	349	301	€101,210,000.00
7.7(2)		Buildings built after 31 December 2020	23	22	€6,670,000.00	21	20	€6,090,000.00	21	22	€6,090,000.00
Total			875	734	€253,750,000.00	788	661	€228,520,000.00	781	686	€226,490,000.00

This block displays the Technical Screening Criteria (TSC) assessment, per Economic (Sub) Activity. This section of the report displays the absolute number of loans, building units and corresponding balance that passed these checks.



# ENGAGE: EU Taxonomy Alignment Report

Portfolio Name	Example Portfolio 2024
Portfolio Date (DD-MM-YY)	01-08-2024
Total # of Loans	1300
Total # of Building Units	1100
Total Balance	€444,600,000.00
TSC passed %	50.94%

## TSC pass Total Portfolio

SCC (check passed)			DNSH (check) passed			TSC Passed (SCC + DNSH)		
% of all loans	% of total Building u	% of total Balance	% of total loans	% of total Building u	% of total Balance	% of total loans	% of total Building u	% of total Balance
35.38%	37.36%	30%	31.85%	33.64%	27%	31.62%	33.00%	27%
30.15%	27.36%	26%	27.15%	24.64%	23%	26.85%	27.36%	23%
1.77%	2.00%	2%	1.62%	1.82%	1%	1.62%	2.00%	1%
67.31%	66.73%	57.07%	60.62%	60.09%	51.40%	60.08%	62.36%	50.94%

This block displays the Technical Screening Criteria (TSC) assessment, per Economic (Sub) Activity. This section of the report displays the relative (vis-à-vis the portfolio) number of loans, building units and corresponding balance that passed these checks.



# An introduction to EPBD IV

2024/1275

8.5.2024

**DIRECTIVE (EU) 2024/1275 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**of 24 April 2024**

**on the energy performance of buildings**

(recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee <sup>(1)</sup>,

Having regard to the opinion of the Committee of the Regions <sup>(2)</sup>,

Acting in accordance with the ordinary legislative procedure <sup>(3)</sup>,

Whereas:

- (1) Directive 2010/31/EU of the European Parliament and of the Council <sup>(4)</sup> has been substantially amended several times <sup>(5)</sup>. Since further amendments are to be made, that Directive should be recast in the interests of clarity.
- (2) Under the Paris Agreement <sup>(6)</sup>, adopted in December 2015 under the United Nations Framework Convention on Climate Change (UNFCCC) (the 'Paris Agreement'), its Parties have agreed to hold the increase in the global average temperature well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1,5 °C above pre-industrial levels. Reaching the objectives of the Paris Agreement is at the core of the Commission communication of 11 December 2019 entitled 'The European Green Deal' (the 'European Green Deal'). The Union committed itself to reducing the Union's economy-wide net greenhouse gas emissions by at least 55 % by 2030 below 1990 levels in the updated nationally determined contribution submitted to the UNFCCC Secretariat on 17 December 2020.
- (3) As announced in the European Green Deal, the Commission presented its Renovation Wave strategy in its communication of 14 October 2020 entitled 'A Renovation Wave for Europe — greening our buildings, creating jobs, improving lives'. The Renovation Wave strategy contains an action plan with concrete regulatory, financing and enabling measures, with the objective to at least double the annual energy renovation rate of buildings by 2030 and to foster deep renovations, resulting in 35 million building units renovated by 2030 and the creation of jobs in the construction sector. The revision of Directive 2010/31/EU is necessary as one of the vehicles by which to deliver on the Renovation Wave. It will also contribute to delivering on the New European Bauhaus initiative, presented in the Commission communication of 15 September 2021 entitled 'New European Bauhaus — Beautiful, Sustainable,

<sup>(1)</sup> OJ C 290, 29.7.2022, p. 114.

<sup>(2)</sup> OJ C 375, 30.9.2022, p. 64.

<sup>(3)</sup> Position of the European Parliament of 12 March 2024 (not yet published in the Official Journal) and decision of the Council of 12 April 2024.

<sup>(4)</sup> Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (OJ L 153, 18.6.2010, p. 13).

<sup>(5)</sup> See Annex IX, Part A.

<sup>(6)</sup> OJ L 282, 19.10.2016, p. 4.





# EPBD IV – A primer

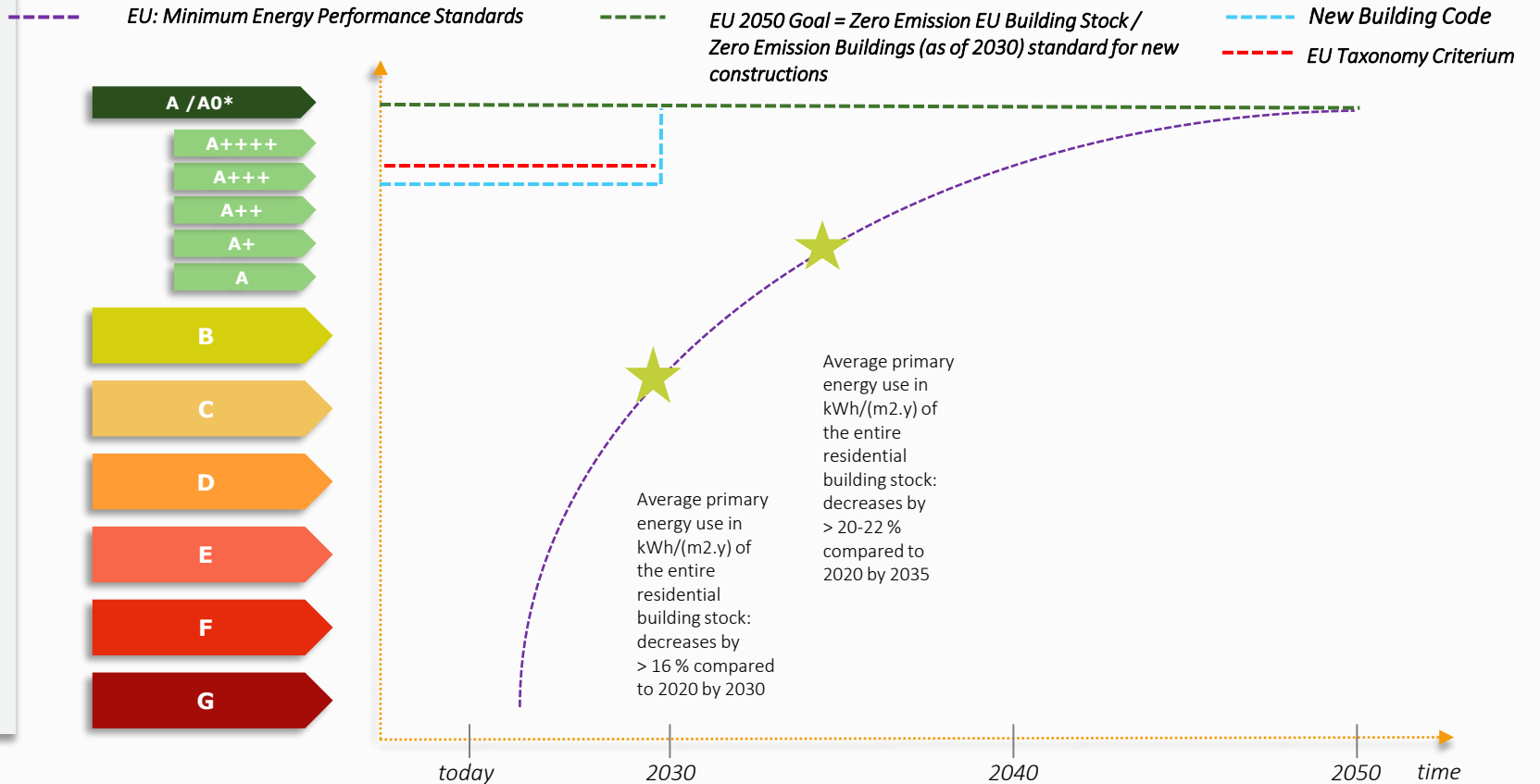
## EPBD IV – in short

The **European Climate Law** establishes the objective of achieving climate neutrality across the economy by 2050 at the latest.

The **revised Energy Performance of Buildings Directive (EPBD IV)** must be transposed into national legislation **by 29 May 2026**, with phased provisions running until 2030.

**Zero-emission building (ZEB):** These are buildings with very low energy demand, no carbon dioxide emissions on site from fossil fuel use, and no or only very limited operational greenhouse gas emissions.

By 2030, all new buildings must be *zero-emission buildings*, while the *existing building stock* must be transformed into *zero-emission buildings* by **2050**.



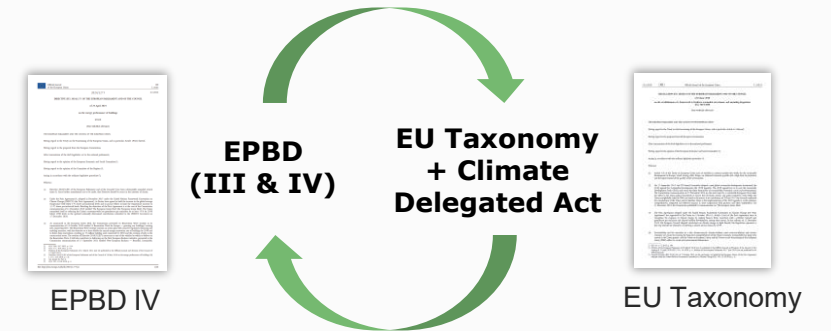
EPBD IV: all buildings must be ZEB by 2050. EPBD IV contains multiple policy instruments that apply to residential loans



# EPBD IV – Link with the EU Taxonomy

Relevant elements / articles for residential loans

Application level	Article	Short Explanation
National level	<b>National Building and Renovation Plan</b> (Article 3)	National strategy with renovation roadmaps, targets (2030, 2040, 2050), policy measures and financing to make the building stock emission-free by 2050.
Building / portfolio level	<b>Minimum Energy Performance Requirements</b> (Article 9)	By 2030, energy consumption must be 16% lower than in 2020 and by 2035 reduced by 20–22%. More than half of the reduction must come from the 43% least energy-efficient dwellings, measured in primary energy consumption.
Portfolio level (financial institutions)	<b>Mortgage Portfolio Standards</b> (Article 2)	(voluntary) mechanisms to encourage lenders to improve the average energy performance of mortgage-backed portfolios, in line with EU decarbonisation targets.
Individual building / owner	<b>Renovation Passport</b> (Article 12, Annex VIII)	Voluntary tailor-made roadmap for phased deep renovation of a specific building to make it emission-free.



**EPBD IV: all buildings must be ZEB by 2050. EPBD IV contains multiple policy instruments that apply to residential loans  
And many links to the EU Taxonomy**



## EPBD IV – Investment Gap

### Financing challenge: structural shortfall and mobilisation of capital

Om de doelstellingen uit de EPBD IV en de *Zero Emission Building* (ZEB)-norm in 2050 te halen, is een ingrijpende versnelling van investeringen noodzakelijk.

### Investment gap

- **Quantitative:** At present, around €85–90 billion per year is invested in building energy efficiency across the EU. According to the European Commission, an additional €275 billion per year is required to meet the 2030 targets. **This brings the total annual need to more than €360 billion, implying a substantial financing gap each year.**
- **Structural:** The renovation challenge is highly fragmented. This prevents economies of scale, raises transaction costs, and makes it difficult to develop standardised financing products. The diversity in housing typologies and building vintages complicates standardisation further. Decision-making is dispersed among millions of individual homeowners.

### Bottlenecks

- The benefits of energy savings often materialise only over the long term.
- This makes it challenging for financial institutions to build a viable renovation business model for lower-rated buildings.
- Public guarantees, subsidies and greater standardisation can help to support financing.

On 30 June, the European Commission published the EPBD IV guidance documentation. In Annex 2 it states:

- *“Member States shall promote [...] guarantee funds, funds targeting deep renovations, [and] funds targeting renovations with a significant minimum threshold of targeted energy savings” (p. 6)*
- *“Financial assistance has to be tied to the energy savings or improvements created by the energy renovation project” (p. 15)*
- *“Member States shall adopt measures that promote energy efficiency lending products for building renovations, such as green mortgages and green loans” (p. 14)*

European Commission (2025). Annex 2 to the Communication: Approval of the content of the draft Commission Notice providing guidance on new or substantially modified provisions of the recast Energy Performance of Buildings Directive (EU) 2024/1275 – Financial incentives, skills and market barriers (Article 17) and one-stop shops (Article 18), C(2025) 4132 final, Brussels, 30 June 2025.

**The structural nature of this challenge requires policy solutions that activate both homeowners and financiers (capital markets)**



# EPBD IV & EU Taxonomy: an example for renovations

## Example Applying EU Taxonomy

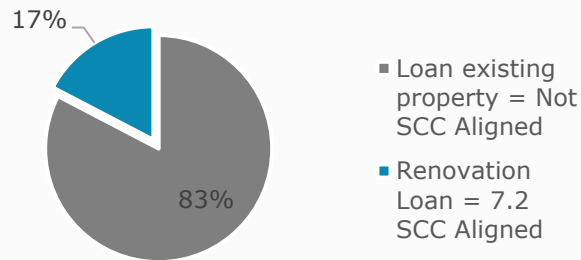
(EPC from G to C)

Current mortgage loan = € 500K

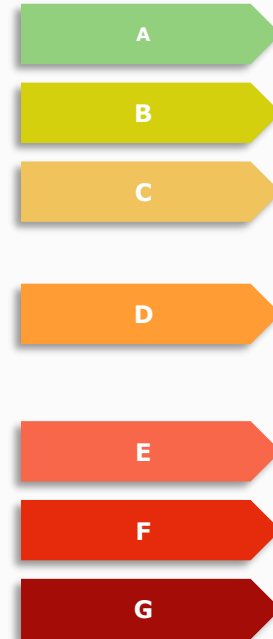
Renovation loan = € 95K

A renovation loan is added to insulate (€ 70k), instal solar panels (€ 10k) and install a heatpump (€ 25k).

The PED improvement is 79% and after the renovation works the property obtains an EPC of Class 'C'.



'Only' € 95k (17% of total loan) is considered EUT aligned\* despite large energy efficiency improvement



## Focus area – EU Taxonomy Alignment

- Favours renovations that can easily obtain EPC Class A (post-renovation). In that case the whole loan can be considered.
- Work with fractions of loans
- Highly technocratic criteria, which often are not embedded in national methods

## Focus area – EPBD IV NECP & National Renovation plan(s)

- This is where the biggest “environmental gain” can be made.
- Less interesting in terms of EU Taxonomy alignment.
- However limited incentives based on climate change mitigation technical screening criteria to allocate funds.
- The group that is statistically most susceptible to energy poverty and vulnerable to volatile fossil fuel prices.

Renovation criteria under the EUT are complex to apply in practice. As criteria / data requirements are challenging and one has to work with fractions of loans.





# EPBD IV – A primer

## Current EU Taxonomy applications

7.1	SCC	DNSH	MS	Criteria for new constructions
7.2	SCC	DNSH	MS	
7.3*	SCC	DNSH	MS	Criteria for renovations and installation of measures
7.6*	SCC	DNSH	MS	
7.7	SCC	DNSH	MS	Criteria for existing & new buildings

## Challenges in applying the EU Taxonomy

- Financial institutions have reported minimal Taxonomy-aligned renovations or constructions, highlighting the complexity of applying the criteria. ING has assessed that for 2024 the average **GAR reached only 3.7%**, up from 3% a year earlier.
- Most institutions limit their EU Taxonomy reporting to Section 7.7, underscoring the need for pragmatic criteria to meet Green Deal goals and boost renovations. While science-based criteria are crucial, they must be usable, too.
- Renovating the EU's building stock is vital for achieving 2050 climate goals.

**Simplified, EPBD-consistent EU Taxonomy criteria, especially for residential loans, could improve uptake and effectiveness while supporting climate goals.**

**In practice only criteria for existing (EPC Class A or Top-15%) buildings are applied. Average GAR in the EU 3.7%**

\* Pursuant to Answer 62 of the Draft Commission Notice of 29 November 2024 and Answer 37 of the Commission Notice of 8 November 2024, the assessment of the purchase or acquisition of individual measures must align with the technical screening criteria (TSC) and minimum safeguards (MS) outlined in Section 3 of the Climate Delegated Act, which pertain to the manufacturing of these measures.



# EPBD IV – A primer

## Current EU Taxonomy applications

7.1	SCC	DNSH	MS
7.2	SCC	DNSH	MS
7.3*	SCC	DNSH	MS
7.6*	SCC	DNSH	MS
7.7	SCC	DNSH	MS

## Ideal (simplified) criteria for the EU Taxonomy, as proposed in the Feb 2025 PSF Report

SCC	DNSH	MS	Criteria for new constructions
SCC	DNSH	MS	
	DNSH	MS	Criteria for renovations and installation of measures
	DNSH	MS	
SCC	DNSH	MS	Criteria for existing & new buildings

In February 2025 the PSF published a simplification proposal which was very favourable and would likely boost GAR numbers



# EPBD IV – A primer

## PSF proposal April 2025

7.1	SCC	DNSH	MS	Criteria for new constructions
7.2	SCC	DNSH	MS	
7.3*	SCC	DNSH	MS	Criteria for renovations and installation of measures
7.6*	SCC	DNSH	MS	
7.7	SCC	DNSH	MS	Criteria for existing & new buildings

### Uncertain what to expect from EU Taxonomy update

- Not all PSF suggestions appear favourable. In the January and April reports, only limited proposals were raised to review and update SCC 7.1, 7.2 and 7.7, mainly due to time constraints within the PSF.
- Several proposals treat EPBD IV as merely a baseline, while the PSF recommends that the EUT criteria should be stricter than EPBD IV implementation.
- This is problematic, as it creates considerable uncertainty for residential homeowners.
- The issue of subsidiarity also arises: should a Level 2 regulation, with its limited scope to undertakings, dictate what is considered “green” across Member States?
- There is tension between imposing rigid thresholds and the EPBD IV’s focus on national implementation tailored to local practices.

We therefore hope that the EUT criteria update for real estate will be pragmatic, reflect data availability and governance considerations, and allow sufficient flexibility for nationally implemented measures.

In April 2025 the PSF published another report on the TSC update  
We hope to see a pragmatic simplification – in line with national EPBD IV implemented measures



# EPBD IV

<i>Article 2</i> <b>Definitions</b>	<i>Article 3</i> <b>National building renovation plan</b>	<i>Article 4</i> <b>Adoption of a methodology for calculating the energy performance of buildings</b>	<i>Article 5</i> <b>Setting of minimum energy performance requirements</b>	<i>Article 6</i> <b>Calculation of cost-optimal levels of minimum energy performance requirements</b>
<i>Article 7</i> <b>New buildings</b>	<i>Article 8</i> <b>Existing buildings</b>	<i>Article 9</i> <b>Minimum energy performance standards</b>	<i>Article 10</i> <b>Solar energy in buildings</b>	<i>Article 11</i> <b>Zero-emission buildings</b>
<i>Article 12</i> <b>Renovation passport</b>	<i>Article 13</i> <b>Technical building systems</b>	<i>Article 14</i> <b>Infrastructure for sustainable mobility</b>	<i>Article 15</i> <b>Smart readiness of buildings</b>	<i>Article 16</i> <b>Data exchange</b>
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<i>Article 22</i> <b>Databases for the energy performance of buildings</b>	<i>Article 23</i> <b>Inspections</b>	<i>Article 24</i> <b>Reports on the inspection of HVAC</b>	<i>Article 25</i> <b>Independent experts</b>	<i>Article 26</i> <b>Certification of building professionals</b>
<i>Article 27</i> <b>Independent control system</b>	<i>Article 28</i> <b>Review</b>	<i>Annex I</i> <b>framework for the calculation of the energy performance of buildings</b>	<i>Annex II</i> <b>Template for the national building renovation plans</b>	<i>Annex III</i> <b>Calculation of life-cycle GWP of new buildings pursuant to Article 7(2)</b>
<i>Annex IV</i> <b>Common general framework for rating the smart readiness of buildings</b>	<i>Annex V</i> <b>Template for energy performance certificates</b>	<i>Annex VI</i> <b>Independent control systems for energy performance certificates</b>	<i>Annex VII</i> <b>Comparative methodology to identify cost-optimal levels of energy performance requirements</b>	<i>Annex VIII</i> <b>Requirements for renovation passports</b>

EPBD IV contains many articles, relevant for different applications and stakeholders





# EPBD IV

Article 2 Definitions	Article 3 National building renovation plan	Article 4 Adoption of a methodology for calculating the energy performance of buildings	Article 5 Setting of minimum energy performance requirements	Article 6 Calculation of cost-optimal levels of minimum energy performance requirements
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Relevant for new buildings



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Relevant for renovations



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Relevant for Member States



# EPBD IV

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# EPBD IV – A primer

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# EC: Additional Guidance for EPBD IV

## Delegated Regulation

- [Commission Delegated Regulation supplementing Directive \(EU\) 2024/1275 – Cost-optimality methodology \(legal act\)](#)
- [Cost-optimality guidelines – annex to Delegated Regulation](#)

## Implementing Regulation

- [Commission Implementing Regulation on databases for the energy performance of buildings \(Article 22\)](#)
- [Annex 5 – Databases for the energy performance of buildings](#)

## Guidance Documents (Commission Notice and Annexes)

- [Commission Notice providing guidance on new or modified EPBD provisions \(main guidance document\)](#) (62 pages)
- [Annex 1 – MEPS for non-residential buildings and renovation trajectories for residential](#) (60 pages)
- [Annex 2 – Financial incentives, skills, and market barriers](#) (44 pages)
- [Annex 3 – Energy performance certificates and control systems](#) (49 page)
- [Annex 4 – Renovation passport](#) (21 pages)
- [Annex 5 - Databases for the energy performance of buildings \(Article 22\)](#) (21 pages)
- [Annex 6 – Data exchange \(Article 16\)](#) (14 pages)
- [Annex 7 – Zero-emission buildings \(Articles 7 and 11\)](#) (23 pages)
- [Annex 8 - Solar energy in buildings \(Article 10\)](#) (15 pages)
- [Annex 9 – Infrastructure for sustainable mobility \(Article 14\)](#) (35 pages)
- [Annex 10 – Technical building systems and inspections \(Articles 13, 23–24\)](#) (36 pages)
- [Annex 11 – Fossil fuel boilers \(Article 13\)](#) (9 pages)
- [Annex 12 – Common general framework for calculating energy performance \(Annex I\)](#) (33 pages)
- [Annex 13 – Life-cycle global warming potential \(Article 7\)](#) (17 pages)

## Other Communications

- [Commission Communication – “Commission sets EU’s building-sector pathway towards greater energy efficiency and decarbonisation”](#)
- [Announcement on the Housing Advisory Board](#)

A **Delegated Regulation** is adopted by the European Commission to supplement or amend non-essential elements of EU legislation, often by specifying technical details or methodologies, and enters into force unless the European Parliament or Council objects.

An **Implementing Regulation**, by contrast, is used to ensure uniform application of EU law across Member States by establishing practical procedures, formats, or templates that must be followed.

The ENGAGE Consortium is analysing all the relevant data requirements suitable under the EPBD IV



## EPBD IV

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The ENGAGE Templates are the most granular disclosure format in the EU. They are well suited for EPBD IV, which builds on the EU Taxonomy and requires significant additional data and insights to close the investment gap

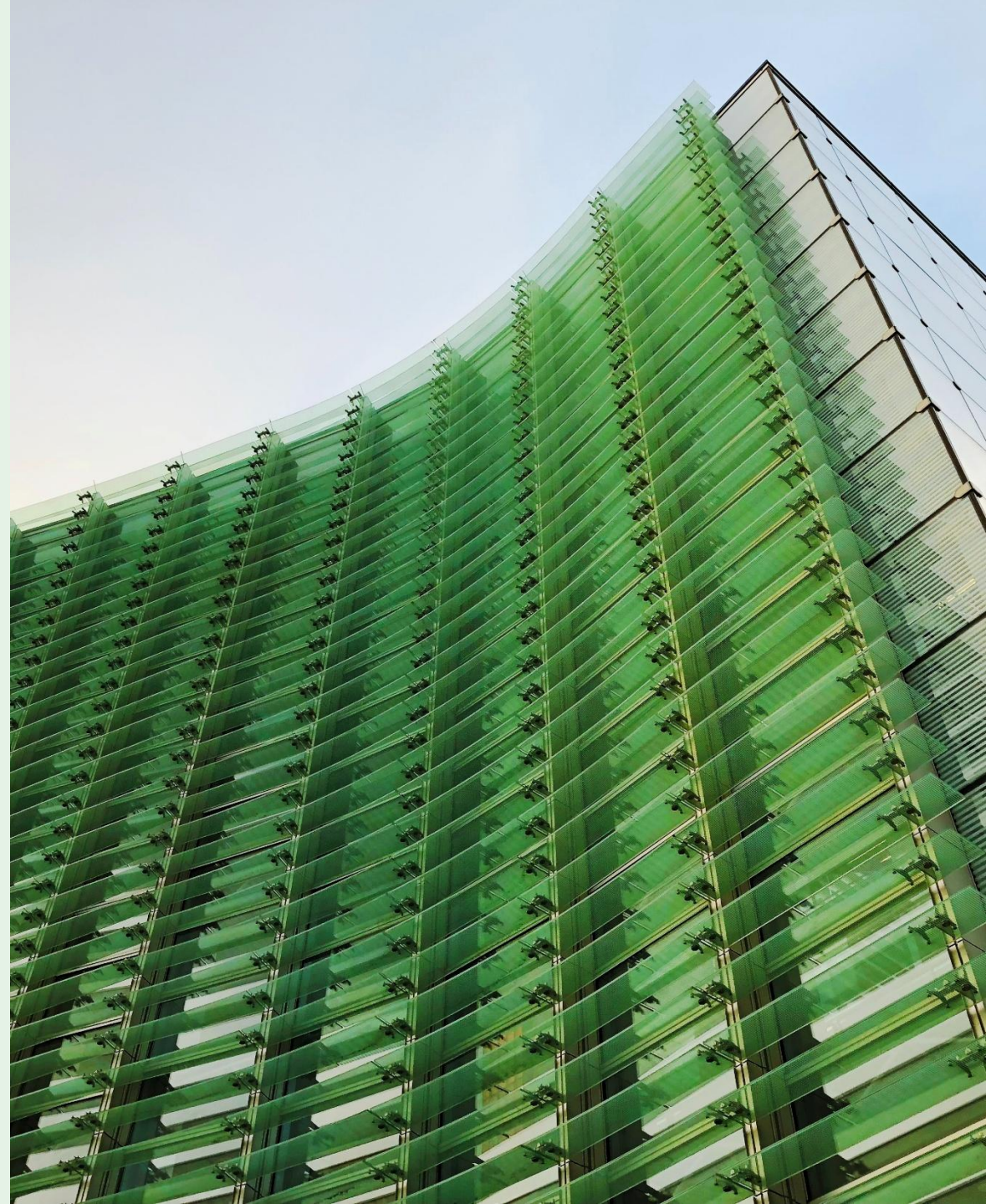


# The ENGAGE solution for ESG simplification in the building sector

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Cátia Alves, UCI

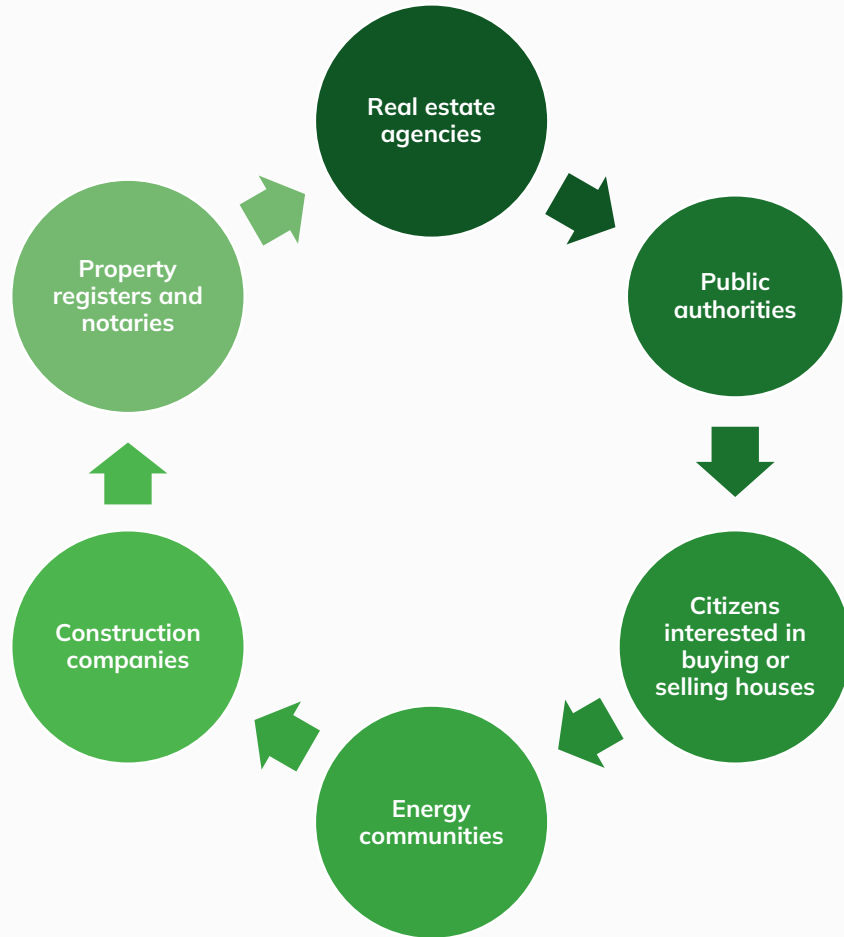
Martijn Breed, NN Bank







# The ENGAGE one-stop-shop concept



- A digital and physical service hub to support homeowners in Spain: technical advice, info on grants and subsidies, administrative support, access to certified professionals, tools to estimate energy savings and financing options for energy efficiency renovations.
- Located in Madrid, led by UCI.

## Context & Motivation

- The EU Green Deal promotes a twin transition: digital and green.
- Energy renovation of buildings is essential to meet climate goals.
- Homeowners face barriers: complexity, lack of trust, fragmented services.





# Objectives

- Simplify the renovation process for homeowners.
- Coordinate stakeholders across the renovation value chain.
- Promote access to green mortgage products.
- Support compliance with EU Taxonomy and ESG standards.



# Services Offered

- Energy audits and label upgrades
- Tailored renovation plans.
- Financial advice and access to green loans.
- Connection with certified contractors.
- Monitoring and follow-up.



## Integration with the ENGAGE Portal

Enables data sharing and transparency for investors  
Facilitates taxonomy-aligned reporting and funding.



# Pilot Scope and Impact

Target: 35 buildings/year  
~700 households/year

We believe this is the prudent approach given the uncertainty about what will happen after Next Gen.

- Estimated investment: €10 million/year

- Focus on replicability and scalability across Spain and the EU



# Benefits

- For **homeowners**: simplified process, better financing, energy savings. Help with barriers: lack of information, complex procedures and financing challenges.
- For **financial institutions**: de-risked investments, ESG compliance.
- For **society**: reduced emissions, job creation, improved housing stock.

# Lessons Learnt

- OSS is a cornerstone of ENGAGE's mission to mainstream sustainable finance.
- It bridges the gap between consumers and capital markets.
- A replicable model for accelerating the Renovation Wave in Europe.



# Relevant case studies





## Plaza Coruña, 9, Madrid

- External thermal insulation system (ETICS) on façades and courtyard walls.
- Accessibility improvements and conservation works in the ground floor entrance hall.



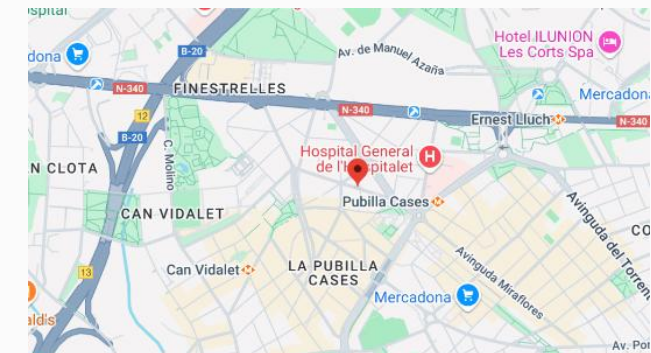
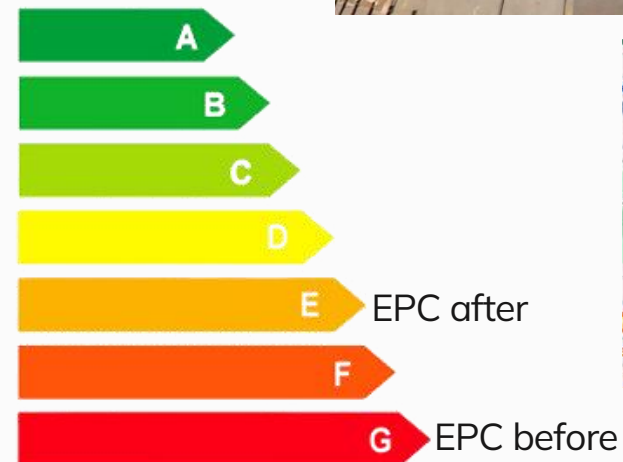
- Which section of the ENGAGE Templates is most relevant in this case and how do we see the actual data in the ENGAGE Templates?





## Amadeu Vives, 23, Madrid

- Repair of deficiencies and improvement of energy efficiency on the main façade, courtyard, party wall, general roof, common terraces, and attic.
- Sanitation system installation.

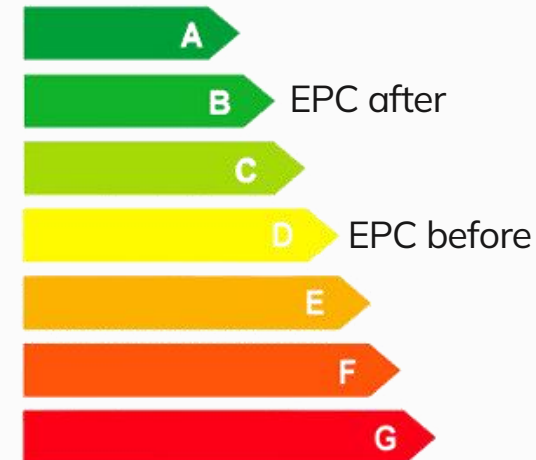






## Higino Noja, 10, Valencia

- Structural rehabilitation: reinforcement of secondary structural elements and waterproofing of the roof.
- Replacement of windows and doors in common areas and the attic apartment (owned by the homeowners' association), external insulation of all façades, insulation of the main roof and rooftop utility room, and installation of solar panels for photovoltaic energy.
- Conservation repairs and accessibility improvements.





# Traffic Lights classification



Most of the 34 new data fields are ready to report. Therefore, no red colours are identified, although many orange buckets pending to be transformed to green. This applies both to Spain and Portugal and we expect to have all the information available after 6 months.

Economic Activity information	General Activity Designation	Construction Year	Top15 Denominator	Estimated or officially produced Primary Energy Demand (PED)	Top15_Explanatory Variable	Top15 Document Geographic Scope	Top15 Numerator	Certificate (EEU-Equivalent EPC) Method / EPBD-Regime
Construction permit application date	Energy Performance Certificate (EPC) class	Estimated or officially produced (EPC)	Climate Area code	Geographic Region - Climate Area	Description on how Minimum Safeguards are complied with	Top15 Methodology Description	Building unit in top-15% indicator	Nearly zero-energy building (NZEB) threshold
Issuance date of most recent available (EPC) registration	Energy Performance Certificate (EPC) Validity Length	Energy Performance Certificate (EPC) Methodology	URL towards MSS Issuer Statement	Environmental Objective	Link alignment with the OECD Guidelines for Multinational Enterprises	Top15_Object Reference Value	Top15_Object Treshold Value	
Energy Performance Certificate (EPC) Status	Primary Energy Demand (PED) of the building	Primary Energy Demand (PED) Based on Building or Building unit	Link towards UN Guiding Principles on Business and Human Rights	Link towards eight fundamental conventions	Top15_ Document Name	Top15_ Document Issuance Date	Top15_ Document URL	

Waiting for a unique definition / Unification of criteria



Co-funded by the  
European Union

# Public-private collaboration, key of success





# NN Bank.- Introduction



- Introduction: Martijn Breed, 50yrs old, recently from C -> A+++
- 25 years of experience in the financial sector
- 20 years of experience in structured finance
- Started at NN Bank in 2012 as senior legal counsel
- Co-founder of Woonnu, the sustainable mortgage label of Nationale-Nederlanden Bank
- Current focus on ESG-related topics
- Representing NN Bank in several external ESG committees



MEMBERS OF  
EEM NL Hub

**Deze woning  
heeft energielabel**

**A<sup>+</sup>**



- 8.3 million homes
- 61% valid EPC
- 35% energy label A or better (A+, A++, A+++)

# Initiatives in the Dutch market

- Legislation allowing higher loans for sustainability
- Availability of low or no-interest loans (Warmtefonds)
- Government and local subsidies
- Mortgage interest discount for energy label A
- Online tools for cost indication of sustainability
- Banks highlighting the benefits of sustainability
- Banks assisting in finding sustainability partners



TOO FEW HOMEOWNERS MAKING THEIR HOMES MORE SUSTAINABLE





woonnu

- Interest rate discount per label improvement
- Pilot for full support in making homes sustainable
  - Customer journey from energy advice -> contractors -> new energy label -> subsidies
  - Immediate benefitting label A interest rate discount
  - Quote in advance guaranteeing costs
- Too little interest from financial advisers and customers



# Lack of willingness

Shift in social and political attention

Climate

Safety

Migration

Sufficient housing

Climate

Subsidies



Lower interest rates



Lower energy costs



Comfortable living

~~Sustainable house~~



# Lack of willingness

Shift in social and political attention

Climate

Safety

Migration

Sufficient housing

Climate

Subsidies



Lower interest rates



Lower energy costs



Comfortable living

~~Sustainable house~~

IF NOT MANDATORY THAN OTHER (HIGHER FINANCIAL) INCENTIVES ARE NEEDED

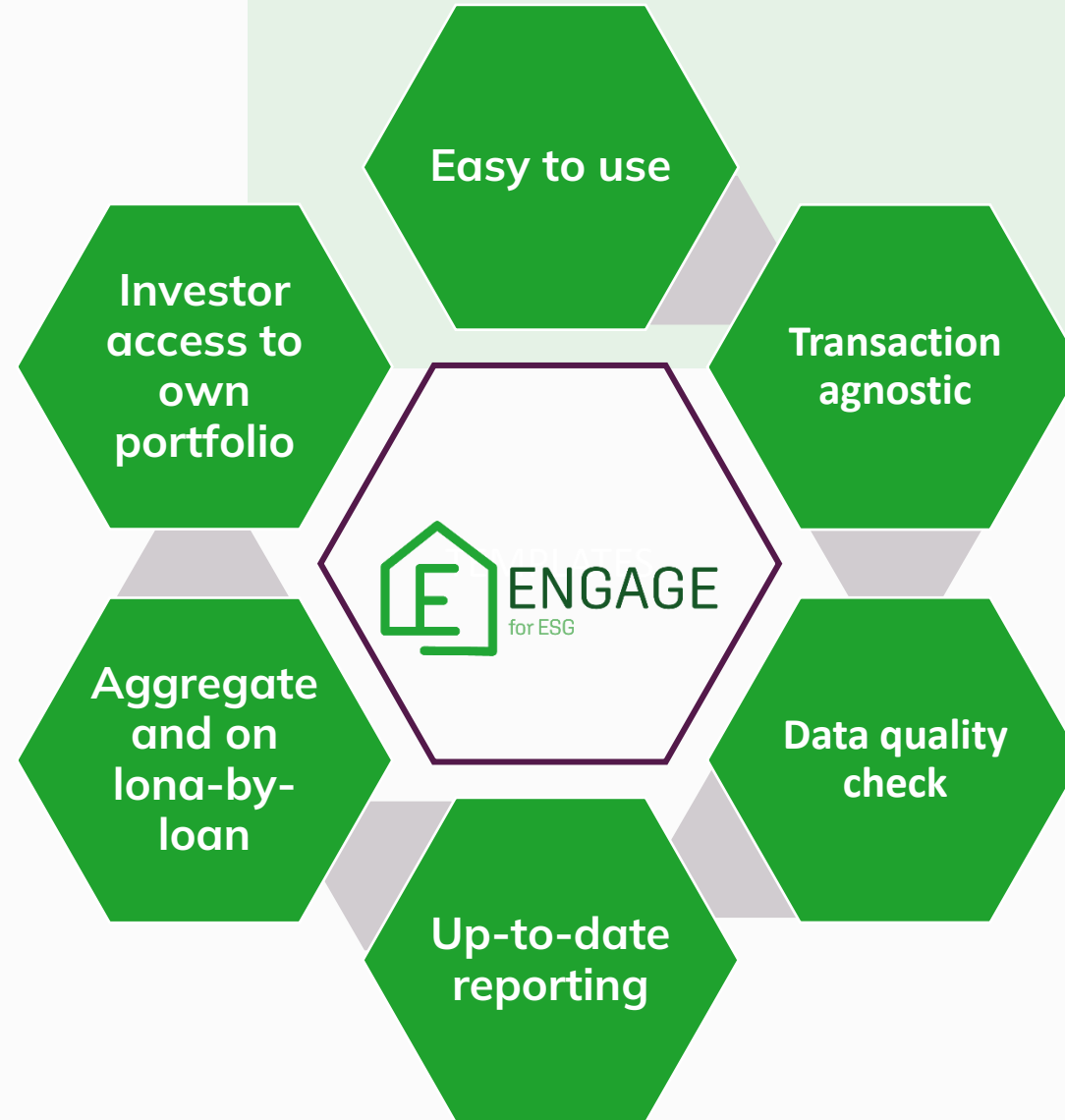
# Higher interest rate discounts

- Lower funding costs for green mortgages = higher interest discounts for green EPC-labels
- Green premium from investors = lower funding costs
- Benefits for investors in green mortgage loans = green premium
- Lower costs of capital for investors = benefits for investors in green mortgage loans
- Changing CRR and Solvency regulations = lower costs of capital for investors

Lower risk weights for green mortgage portfolios and data to prove a mortgage loan is green



# ENGAGE for ESG – the solution to prove a portfolio is green





# Summary

- A lot of homes in the Netherlands need to be refurbished to a better energy label.
- Despite a lot of efforts, the consumer seems not be willing to do so.
- Higher discounts on interest rates are needed to incentivize the customer.
- Green premiums from investors are needed and therefor the CRR and Solvency regulations need to be changed.
- Reliable reporting is needed to prove a mortgage loan (portfolio) qualifies as green.
- ENGAGE for ESG provides the ideal tooling to do so.
- We believe that ENGAGE for ESG can be an important piece of the puzzle towards an energy neutral housing stock in Europe.





# Coffee & Culture

*The art of Venetian mirror-making,  
by Pietro Barbini*



# The art of Venetian mirror-making



*Barbini Venetian mirror. Source: AVV Barbini*



# The art of Venetian mirror-making



Barbini Venetian mirror. Source: AVV Barbini

In the XII century, some areas in Germany and the Lorraine territory developed a high level of **mirror-making craftsmanship** that metalized glass with lead or tin, without, however, being able to manufacture large-scale **mirrors**.

In 1318, the Venetians—who boast a history as able **glassmakers**—attempted to introduce the craft of **glass mirror-making** to Venice with limited success. According to popular tradition, a German man, who has remained anonymous throughout the ages, recruited two Venetians and one Muranese (Murzio Da Murano, Niccolò Cauco and a man named Francesco) in hopes of sharing his techniques. The first recorded **mirror** produced in **Murano** is dated 1369. Yet, because of their costly and complicated production process, **mirrors** were relegated as a luxury object.

Around the mid-XV century in Murano, **Angelo Barovier** invented ‘cristallo’, a type of **glass** that was so limpid, transparent and colorless that it looked like rock crystal. This **glass** became a winning secret for **Venetian mirror makers**. One hundred years later, in 1540, Vincenzo Redor (or Rador), a Venetian, perfected and patented a leveling and shining process for **glass** sheets which allowed producers to obtain perfectly flat, regularly-shaped **mirror** surfaces.

# The art of Venetian mirror-making

This high quality production spread like wild fire and in 1569, **Venetian mirror makers** banded together in corporations, developing new techniques. At the end of the XVI century, diamond-point engraving became common for **glass** and **mirrors** produced in Murano.

The next century saw the development of **decorative mirrors** in Venice. Wood frames were covered with strips of cut **mirror**, and enhanced with **glass** reeds, flowers and leaves. (Muranese glass master Giuseppe Briati is credited for developing this concept). The sheets were also decorated with oil paints, while the **mirrors'** wooden parts were varnished or painted gold according to the tastes of the time.

Thanks to the refined techniques and creative talents of these lagoon artists, Venice experienced a period of grandeur and its techniques were immediately imitated and copied. As early as 1271, Venetian authorities issued the 'Statute of the Confraternity of **Glassmakers**' in which they prohibited the importation of **glass** from abroad, negating foreign **glass makers** the chance to work in Venice. Despite bans on divulging secrets linked to **mirror** production outside of the Serenissima's territory, many Venetian artists immigrated to various parts of Europe, starting up local production in Spain, England, Germany, Belgium, Holland, Denmark and, above all, France.

In fact, **Luigi XIV** decided to stifle the predominance of Venetian craftsmanship, adopting foreign policies that aimed to recruit skillful lagoon **masters** to his court so that they could reveal the secrets of their art.



*Barbini Venetian mirror. Source: AVV Barbini*

Source: AVV Barbini website: <https://aavbarbini.it/specchi/>



# REMAIN INFORMED



Scan the QR Code to stay up to date on ENGAGE for ESG project updates, research insights, and upcoming workshops & events.





# The transposition of the EPBD in Italy

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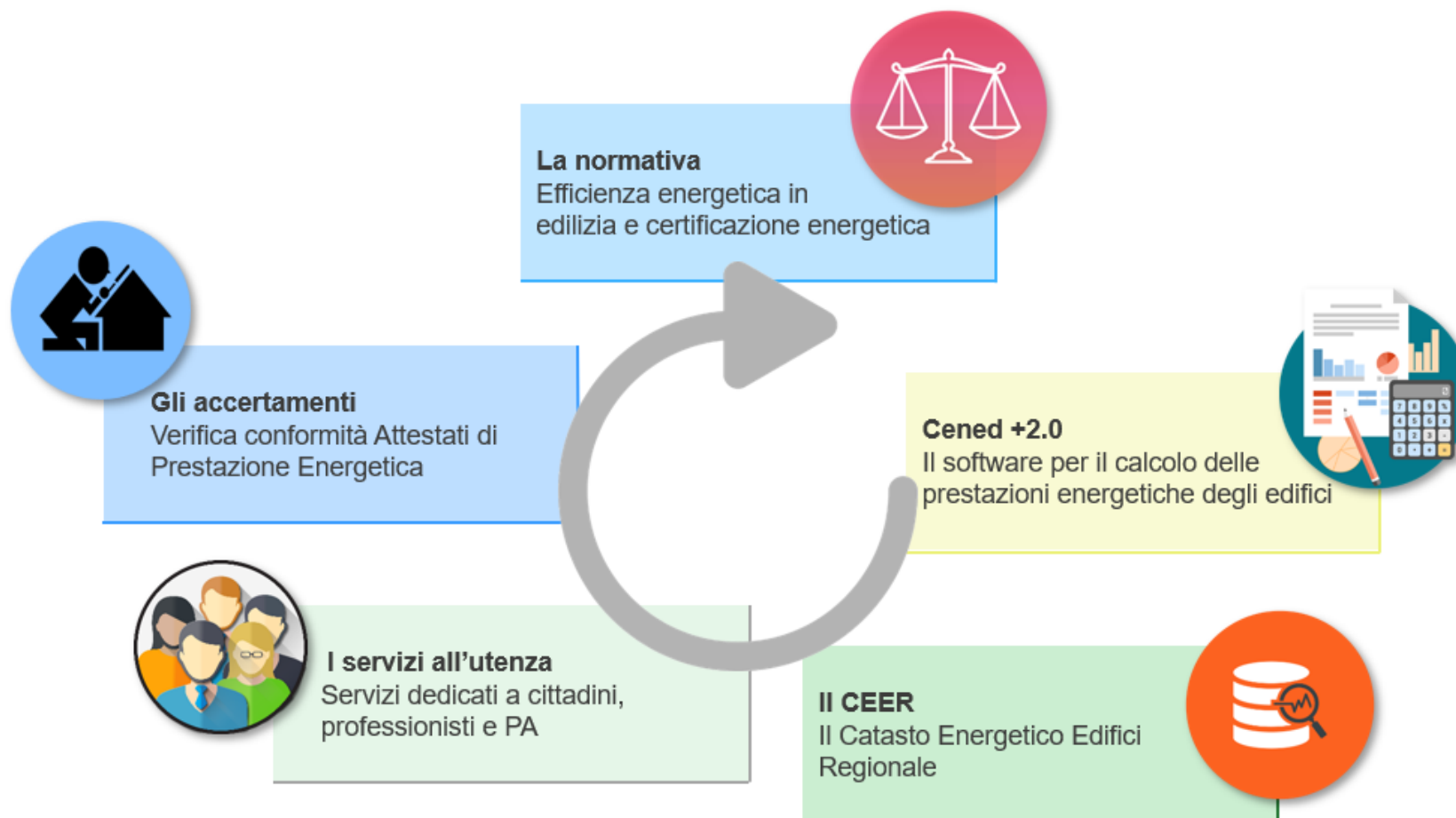
Marco Angheben, European DataWarehouse  
Valentina Belli, Aria S.p.A.



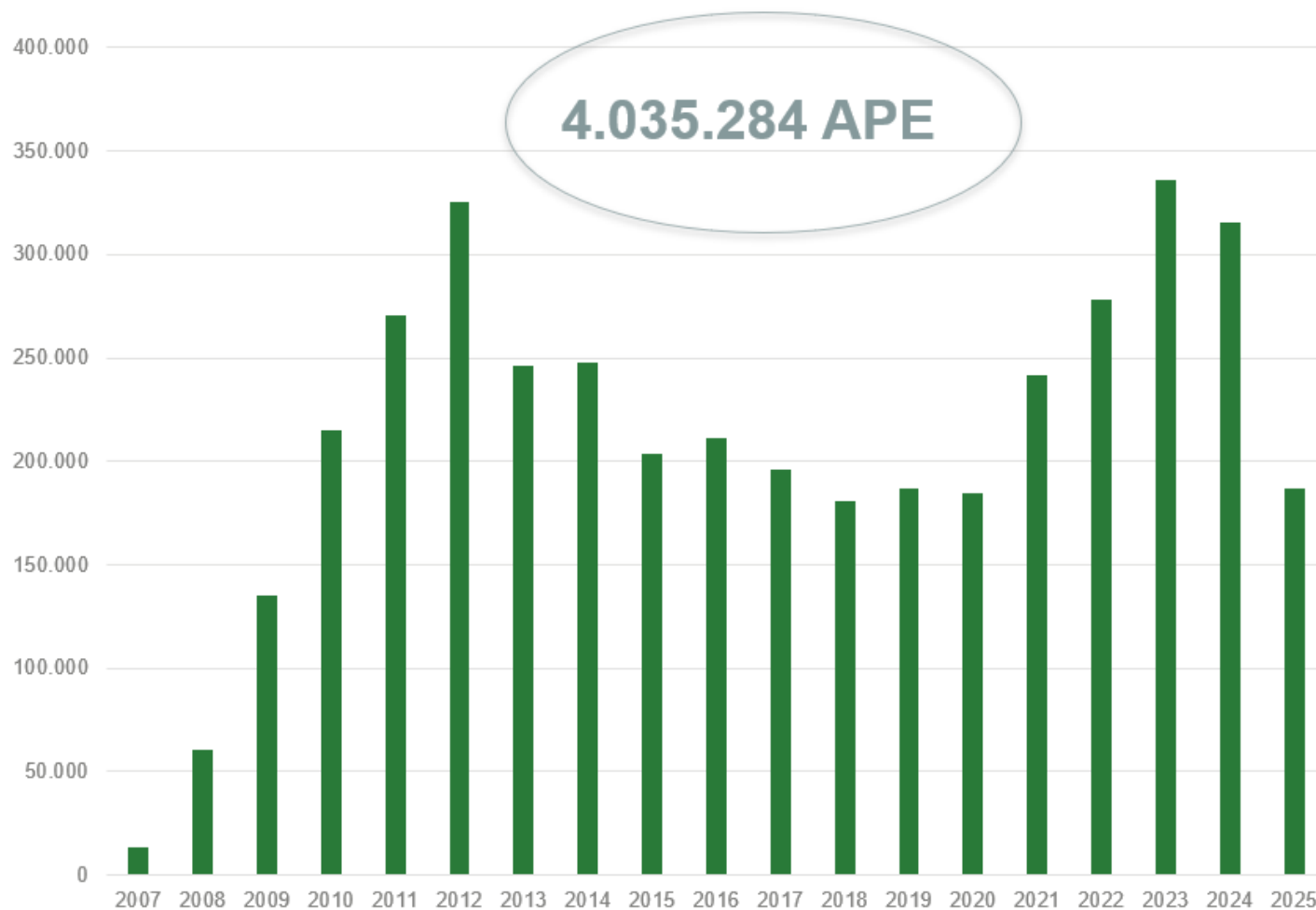




# CENED – un sistema complesso



# Gli APE e gli utenti CENED



26.300 Certificatori



2.260 Notai



170 Enti Locali



66 Enti di formazione



6 Software house



Cittadini lombardi

# **Direttiva (EU) 2024/1275**

RECEPIMENTO: 29 Maggio 2026

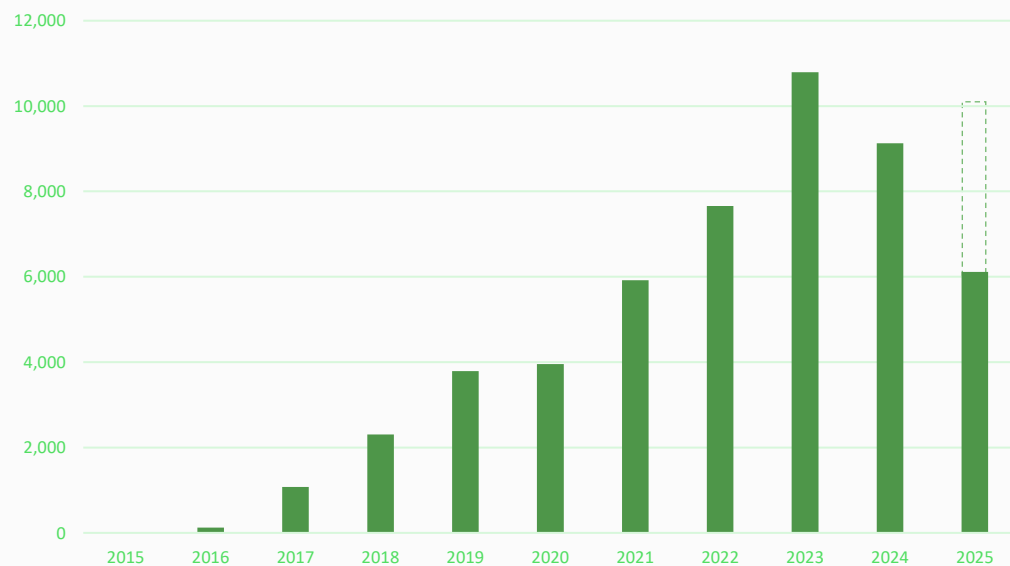
**da NZEB**



**a ZEB**

- a) dal 1° gennaio 2016 gli edifici di nuova costruzione pubblici e privati;  
b) dal 1° gennaio 2016 gli edifici in ristrutturazione importante di primo livello.

- a) dal 1° gennaio 2028, gli edifici di nuova costruzione pubblici;  
b) dal 1° gennaio 2030, tutti gli edifici di nuova costruzione.



**APE relativi a NZEB**



**2 % degli APE**





\* Dato aggiornato al 31/08/2025

## **EDIFICI A EMISSIONI ZERO (ZEB) – DEFINIZIONE UE**

✓ Un edificio a emissioni zero è un edificio che:

-  Ha prestazioni energetiche molto elevate (consumi minimi)
-  Richiede zero o pochissima energia
-  Non usa combustibili fossili sul sito (no gas, petrolio, carbone)
-  Ha emissioni operative di gas serra nulle o molto basse
-  È alimentato solo da fonti rinnovabili o carbon-free:
  - rinnovabili prodotte in loco o nelle vicinanze
  - comunità energetiche rinnovabili
  - teleriscaldamento/raffrescamento efficiente
  - altre fonti senza carbonio (es, nucleare, mix elettrico decarbonizzato)

### ↓ Requisiti principali

-  Fabbisogno energetico massimo: almeno il 10% più basso rispetto agli edifici a energia quasi zero (NZEB)
-  Emissioni operative di gas serra: devono rimanere sotto soglie precise (kgCO<sub>2</sub>eq/m<sup>2</sup>/anno)
-  Interazione con la rete: capacità di adattarsi a segnali esterni (es, gestire i consumi nelle ore di picco, usare batterie, ricarica bidirezionale di veicoli elettrici)
- 

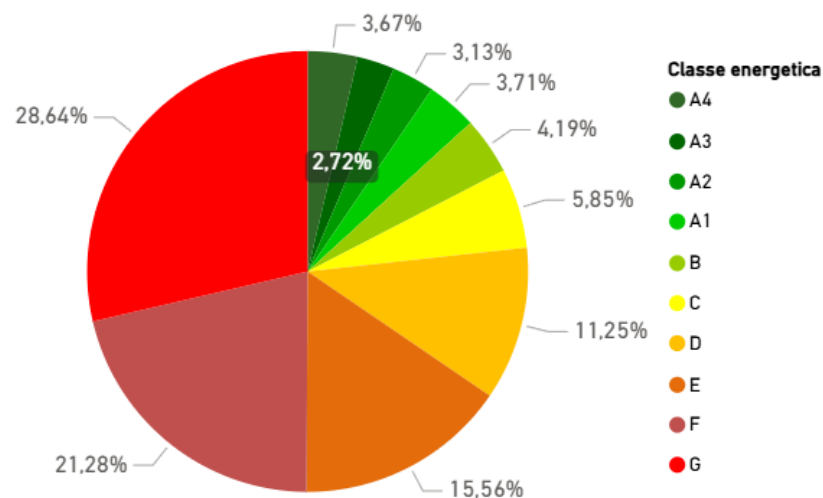
## Parco immobiliare decarbonizzato entro il 2050

riduzione dell'energia primaria media utilizzata dagli **EDIFICI RESIDENZIALI** del:

- 16% entro il 2030;
- 20-22% entro il 2035.

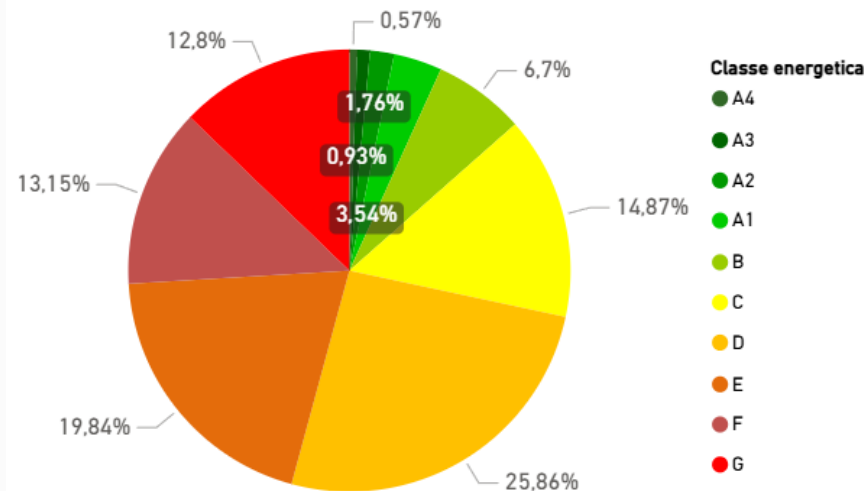
ristrutturazione **EDIFICI NON RESIDENZIALI** con prestazioni più basse nella misura del:

- 6% entro il 2030;
- 26% entro il 2033.



**CLASSIFICAZIONE ENERGETICA**  
Edifici residenziali

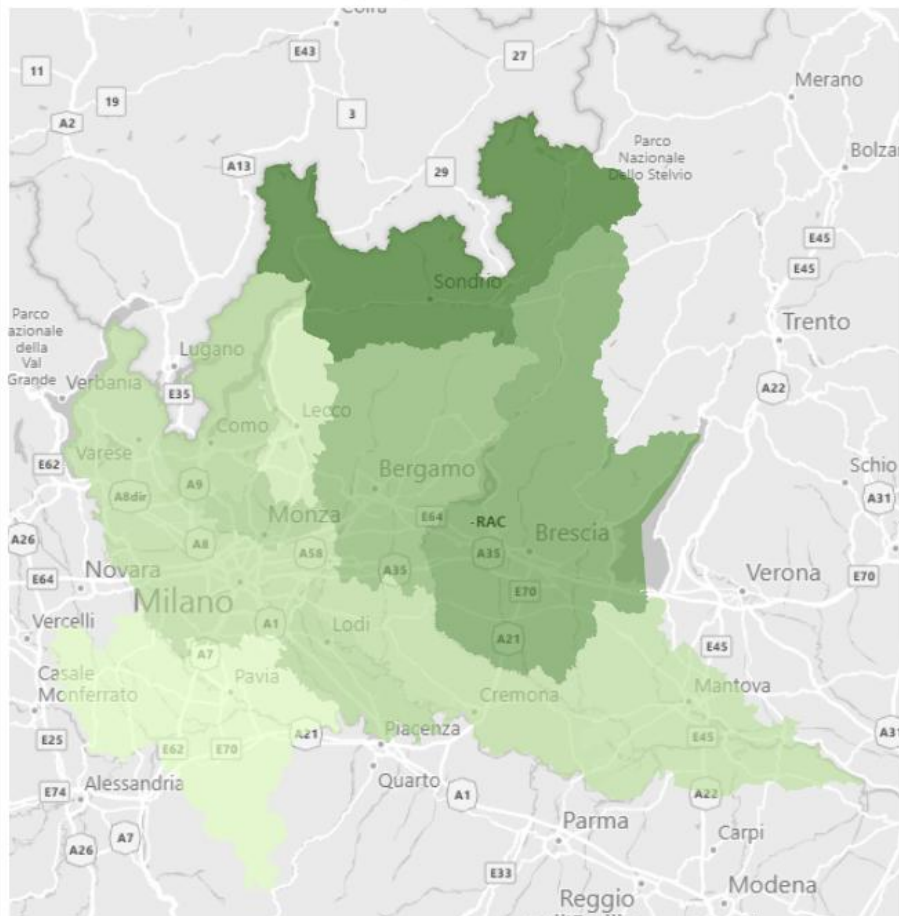
L'88% degli APE si  
riferisce ad edifici con  
 $EP_{gl,tot} > EP_{gl,tot,rif,prog}$



**CLASSIFICAZIONE ENERGETICA**  
Edifici non residenziali

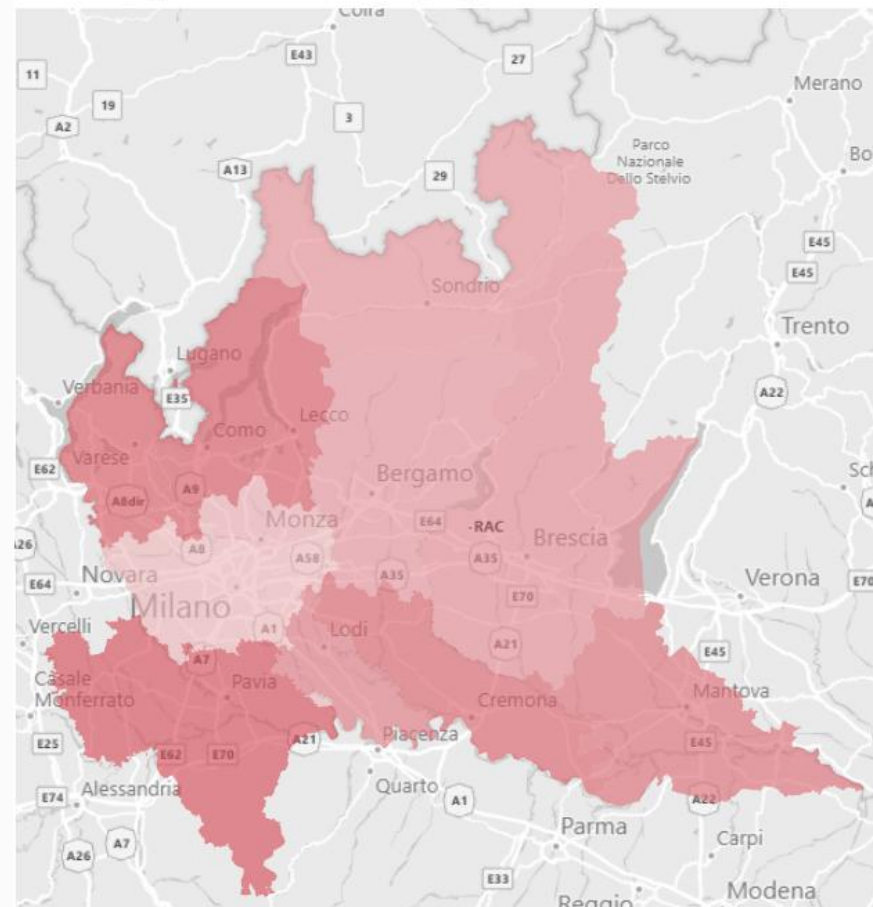
# CENED: classificazione energetica

Percentuale APE depositati ai sensi del DDUO n. 6480/2015 e s.m.i su altre classi per provincia



Max: Sondrio (19,91%)  
Min: Pavia (8,23%)

Percentuale APE depositati ai sensi del DDUO n. 6480/2015 e s.m.i per Classe energetica G su altre classi per provincia



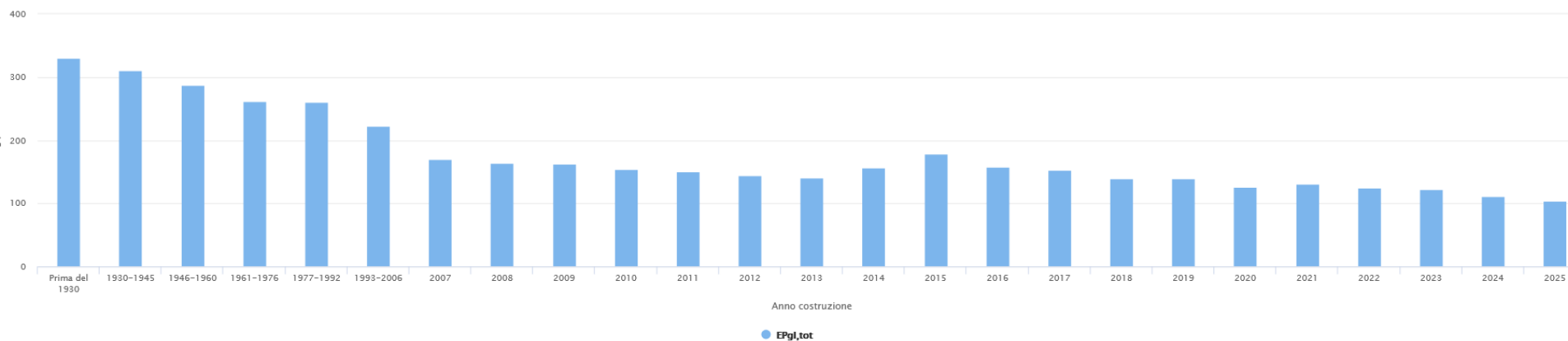
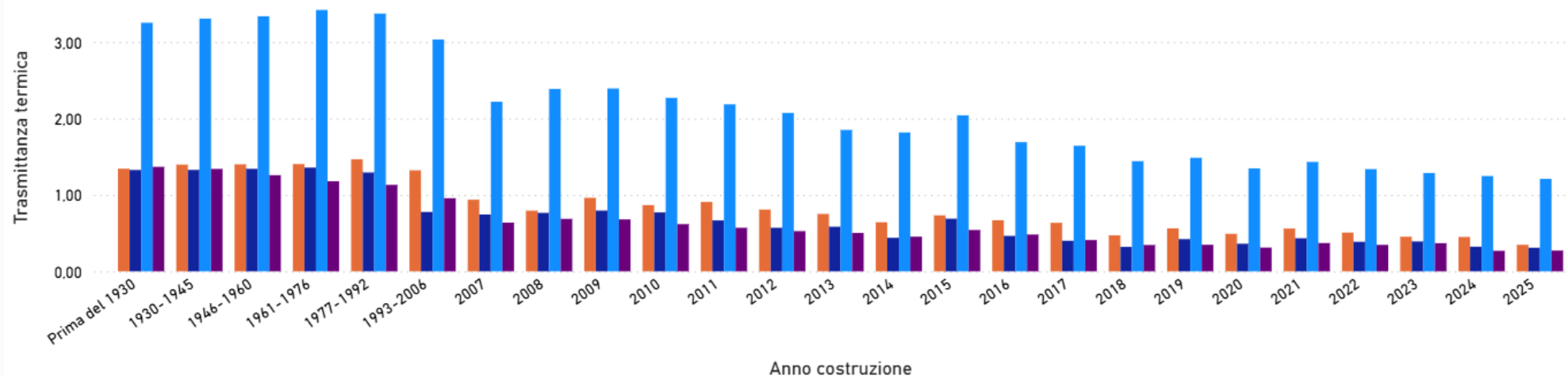
Max: Pavia (35,72%)  
Min: Milano (21,75%)

# Dati CENED: l'evoluzione negli anni

trasmissione e fabbisogno di EE 😊

Trasmittanza termica delle superfici disperdenti [W/(m²K)] per Anno costruzione

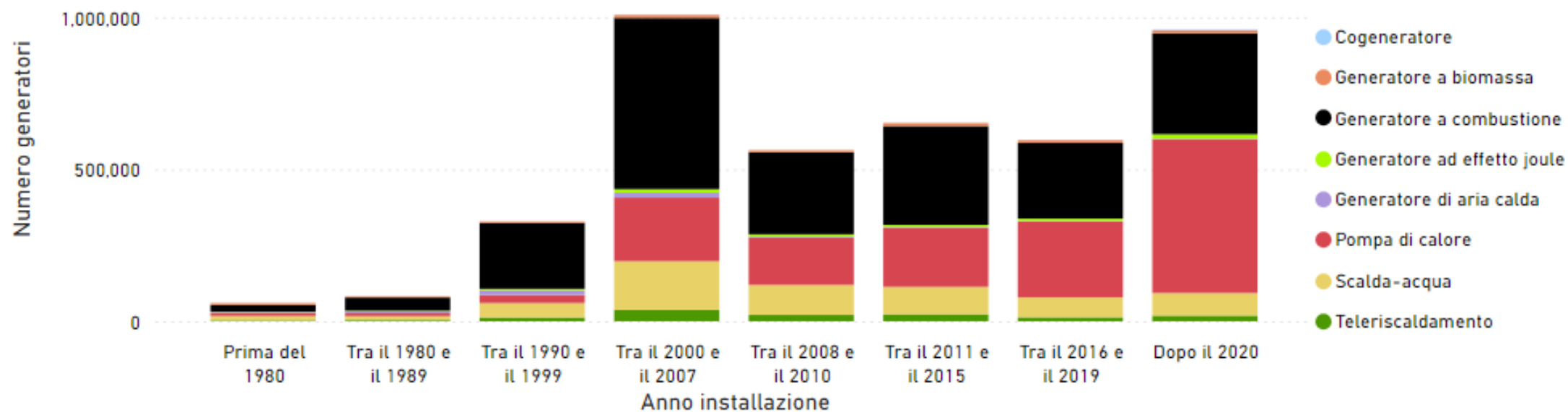
● Trasmittanza termica basamenti ● Trasmittanza termica coperture ● Trasmittanza termica serramenti ● Trasmittanza termica elementi verticali opachi





## I generatori di calore

Numero generatori per tipologia di impianto di generazione per Anno installazione



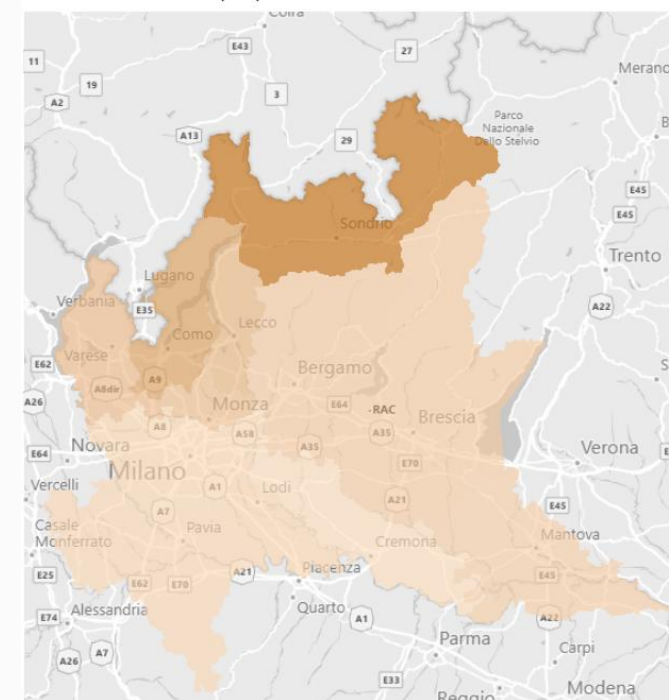
# **Direttiva (EU) 2024/1275**

RECEPIMENTO: 29 Maggio 2026

## **Solare**

- a) entro il 31 dicembre 2026, su tutti i **nuovi edifici pubblici** e non residenziali con una superficie coperta utile superiore a 250 m<sup>2</sup>;
- b) su tutti **gli edifici pubblici esistenti** con superficie coperta utile superiore a 250 m<sup>2</sup> entro il 31 dicembre 2030.
- c) entro il 31 dicembre 2027, sugli **edifici non residenziali esistenti** con una superficie coperta utile superiore a 500 m<sup>2</sup>, se l'edificio è sottoposto a una ristrutturazione importante o a un'azione che richiede un'autorizzazione amministrativa per ristrutturazioni edilizie, lavori sul tetto o l'installazione di un sistema tecnico per l'edilizia;
- d) entro il 31 dicembre 2029, su tutti i nuovi edifici residenziali;
- e) entro il 31 dicembre 2029, su tutti i nuovi parcheggi coperti adiacenti agli edifici

Percentuale APE depositati ai sensi del DDUO 6480/2015 e s.m.i. con solare termico o fotovoltaico per provincia



Max: Sondrio (9,13 %)

Min: Cremona (2 %)

## Incentivi finanziari

### Articolo 17 – Incentivi finanziari, competenze e barriere di mercato

#### •Barriere principali:

- costi iniziali alti
- mancanza di liquidità/solvibilità
- conflitti tra proprietari/inquilini (“split incentives”)
- complessità amministrative e burocratiche

#### •Strumenti consigliati:

- prestiti verdi, mutui agevolati, contratti di rendimento energetico
- incentivi fiscali (IVA ridotta, sgravi su imposte)
- garanzie pubbliche, fondi per ristrutturazioni profonde
- partenariati pubblico-privati

#### •Uso dei fondi:

- legare i finanziamenti ai **risparmi energetici effettivi**
- dare priorità a **ristrutturazioni profonde** e programmi di ampia scala
- finanziare anche **formazione e qualificazione professionale** nel settore edilizio

#### •Equità sociale:

- supporto prioritario a famiglie vulnerabili, persone in povertà energetica, edilizia sociale
- prevenire “renoviction” (sfratti post-ristrutturazione)





# ESG disclosure implementation in Italy: risks and opportunities

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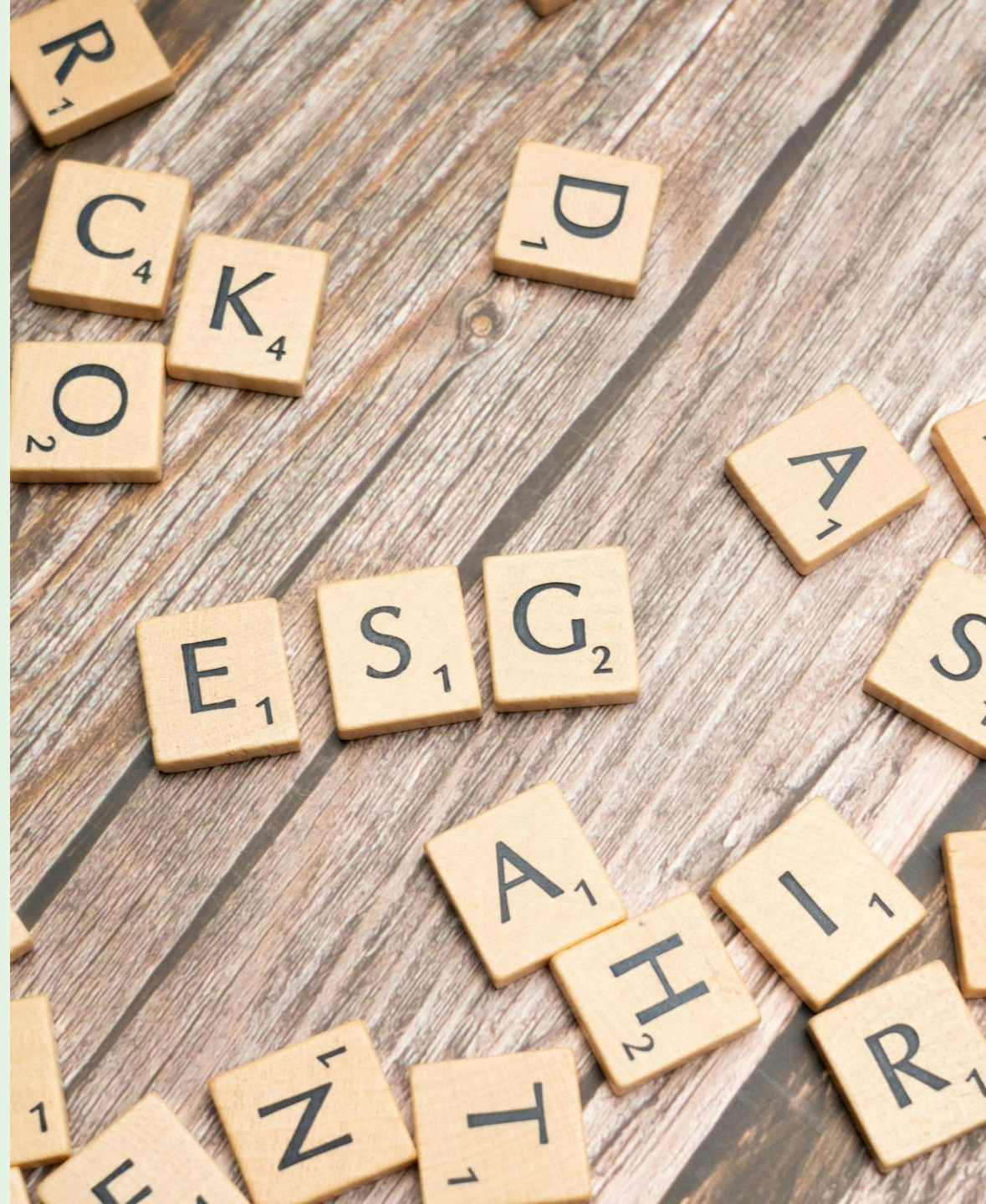
Moderator: Corrado Fiscale, Bird & Bird

Panellists: Marco Mosanghini, Cherry Bank

Michele Costola, Ca' Foscari University

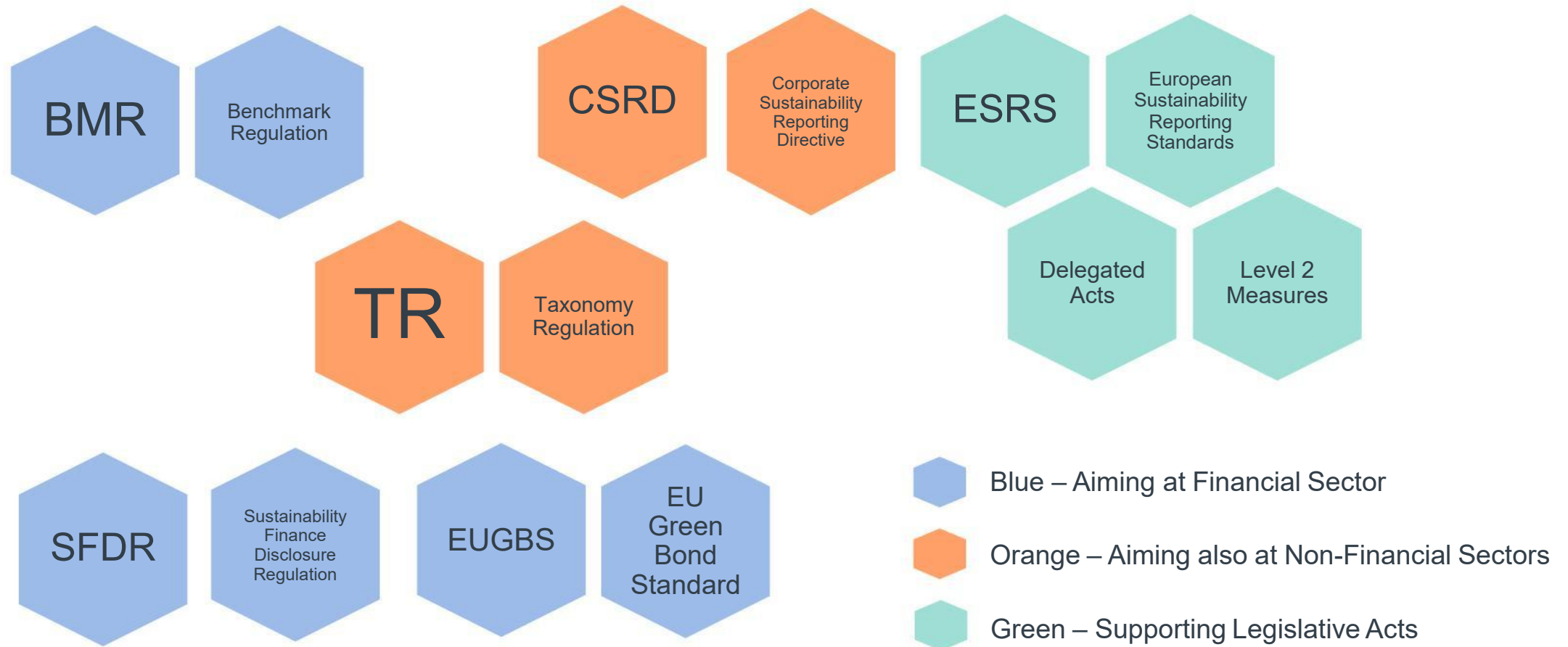
Anna Marucci, Euronext

Gianluca Ginelli, European DataWarehouse



# Overview on main ESG legislation

## *Disclosure/Reporting Obligations*

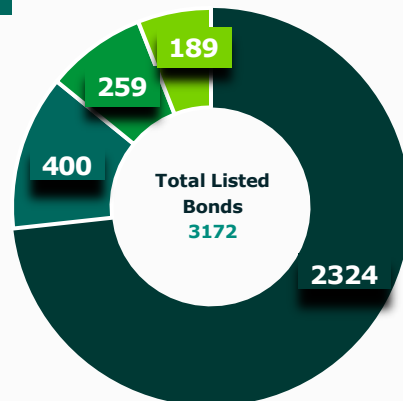




# Euronext Group Numbers

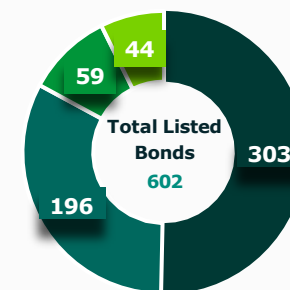
## Listed Bonds per ESG type

- Green Bond
- Sustainability bond
- Social bond
- Sustainability-linked Bond

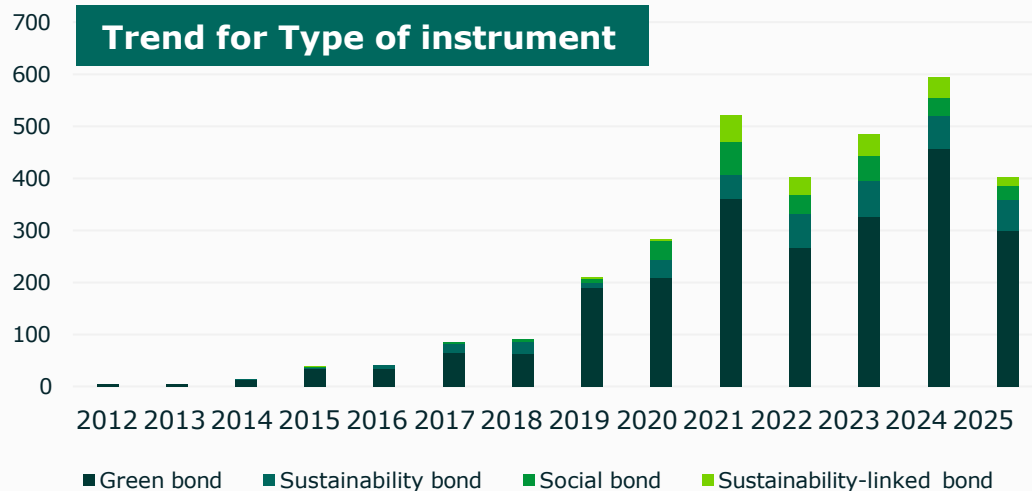


## Focus on Italy

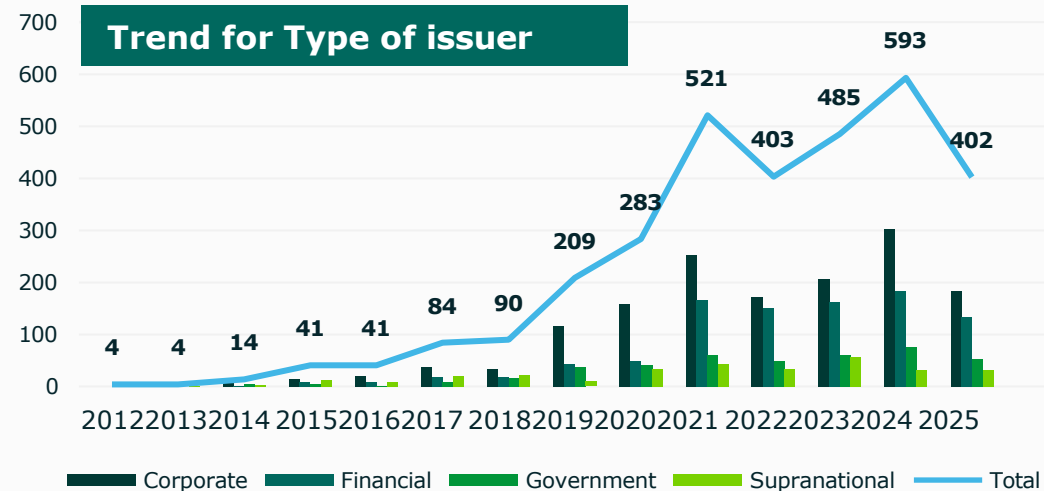
- Green bond
- Sustainability bond
- Social bond
- Sustainability-linked bond



## Trend for Type of instrument



## Trend for Type of issuer



BORSA ITALIANA

| Source: Borsa Italiana, as of September 2025.  
| From the data are excluded tap issuances and Euronext cross-listed ESG bonds  
PRIVATE





# Efficienza energetica degli edifici, mutui più solidi

*La letteratura mostra che una maggiore efficienza energetica è associata ad un minor rischio di credito*

## Caratteristiche personali



Scelta di un edificio ad alto EE  
(es. preferenze ambientali)

## Reddito disponibile



Costi minori  
(es. bollette più basse)

## Valore dell'immobile



Rapporto mutuo-valore immobile  
(diminuzione)

**tre canali**



# ENGAGE Templates renovation section

## Building block 1

						ND Options for the BUILDING BLOCK 0		ND Options for the BUILDING BLOCK 1			
BUILDING BLOCK	TEMPLATE CATEGORY	SECTION	FIELD CODE	FIELD NAME	CONTENT TO REPORT	ND1-ND4 allowed?	ND5 allowed?	ND1-ND7 allowed?	ND5 allowed?	FORMAT	Building block 0: Minimum level of fields for mortgages
1	ENG Annex 6: CMR Add-on	Primary Energy Demand (PED)	ERER11	Primary Energy Demand (PED) of the building - pre renovation	Value of the Primary Energy Demand for the building as displayed on the Energy Performance Certificate pre-renovation. This value should be displayed as total primary energy use in kWh/m2 per year			YES	YES	{INTEGER-9999}	
1	ENG Annex 6: CMR Add-on	Primary Energy Demand (PED)	ERER12	Primary Energy Demand (PED) of the building - post renovation	Value of the Primary Energy Demand for the building as displayed on the Energy Performance Certificate post renovation. This value should be displayed as total primary energy use in kWh/m2 per year and must not include the renewable energy sources			YES	YES	{INTEGER-9999}	
1	ENG Annex 6: CMR Add-on	Renovation amount information	ERER15	Balance for renovation of existing buildings	The amount that meets the criteria for SCC 7.2: Renovation of Existing Buildings shall comply with one of the following conditions:  1. The renovation meets the applicable requirements for major renovations as stipulated in national and regional building regulations implementing Directive 2010/31/EU; or 2. Alternatively, the renovation achieves a reduction in Primary Energy Demand (PED) of at least 30%. This 30% improvement must result from an actual reduction in PED, excluding reductions attributable to the use of renewable Financed emissions for residential real estate refer to the portion of a building's greenhouse gas (GHG) emissions attributable to the financial institution providing funding for the property. These emissions are calculated as follows:			YES	YES	{INTEGER-9999}	
1	ENG Annex 6: CMR Add-on	Building information	ERER19	Financed CO2-emission	Financed Emissions = (Total Property Emissions) × (Outstanding Loan or Investment / Property Value). The			YES	YES	{tCO <sub>2</sub> e}	





# ENGAGE Portal output: data quality report for renovation

Rule ID	Rule Description	Number of Fails
ERER11/ND5/A/01	Primary Energy Demand (PED) of the building - pre renovation (ERER11) equal to ND5 when Primary Energy Demand (PED) of the building - post renovation (ERER12) is populated	13,009
ERER12/ND5/A/01	Primary Energy Demand (PED) of the building - post renovation (ERER12) equal to ND5 when Primary Energy Demand (PED) of the building - pre renovation (ERER11) is populated	423
ERER11/CZ/A/01	Primary Energy Demand (PED) of the building - pre renovation (ERER11) equal to zero	543
ERER12/CZ/A/01	Primary Energy Demand (PED) of the building - post renovation (ERER12) equal to zero	134

Data quality report output by single position

# ENGAGE: EU Taxonomy Alignment Report - Renovation



**Portfolio Name** *Example Portfolio 2025*  
**Portfolio Date (DD-MM-YY)** *01-08-2025*  
  
 Total # of Loans 1300  
 Total # of Building Units 1100  
 Total Balance €444,600,000.00  
 TSC passed % **50.94%**

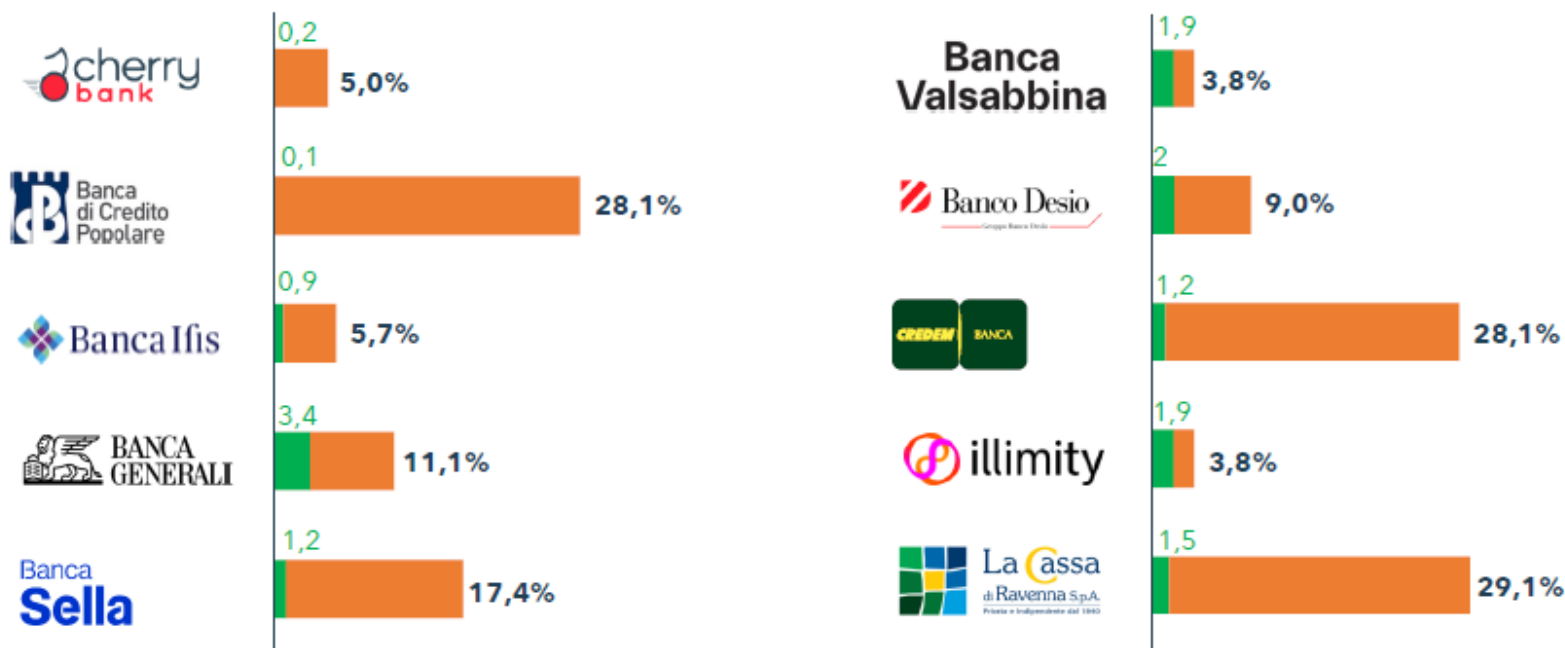
Section	Economic Activity	Subsection	TSC assessment*								
			SCC (check passed)			DNSH* (check) passed			TSC Passed (SCC + DNSH)		
			# of loans	# of Building Units	Balance	# of loans	# of Building Units	Balance	# of loans	# of Building Units	Balance
7.2	Renovation of existing buildings		700	689	€456,400,000.00	684	643	€366,700,000.00	672	633	€299,400,000.00
7.3	Installation, maintenance and repair of energy efficiency equipment		460	411	€133,400,000.00	414	370	€120,060,000.00	411	363	€119,190,000.00
7.6	Installation, maintenance and repair of renewable energy technologies		392	301	€113,680,000.00	353	271	€102,370,000.00	349	301	€101,210,000.00
3.1	Manufacture of renewable energy technologies		23	22	€6,670,000.00	21	20	€6,090,000.00	21	22	€6,090,000.00
3.5	Manufacture of energy efficiency equipment for buildings		17	18	€4,930,000.00	15	16	€4,350,000.00	15	22	€4,350,000.00

This block displays the Technical Screening Criteria (TSC) assessment, per Economic (Sub) Activity. This section of the report displays the absolute number of loans, building units and corresponding balance that passed these checks.

# TASSONOMIA - AMMISSIBILITÀ E ALLINEAMENTO



I grafici analizzano le **percentuali di ammissibilità e allineamento alla tassonomia** derivanti dall'analisi delle esposizioni tra gli attivi in bilancio verso: imprese soggette a CSRD, famiglie e amministrazioni locali. Tra tali esposizioni rientrano: prestiti e anticipi, titoli di debito e strumenti rappresentativi di capitale. In generale, **l'ammissibilità media di tutte le banche considerate si attesta al 14,1%, mentre l'allineamento medio si attesta al 1,4%.**



**Media Ammissibilità: 14,1%**

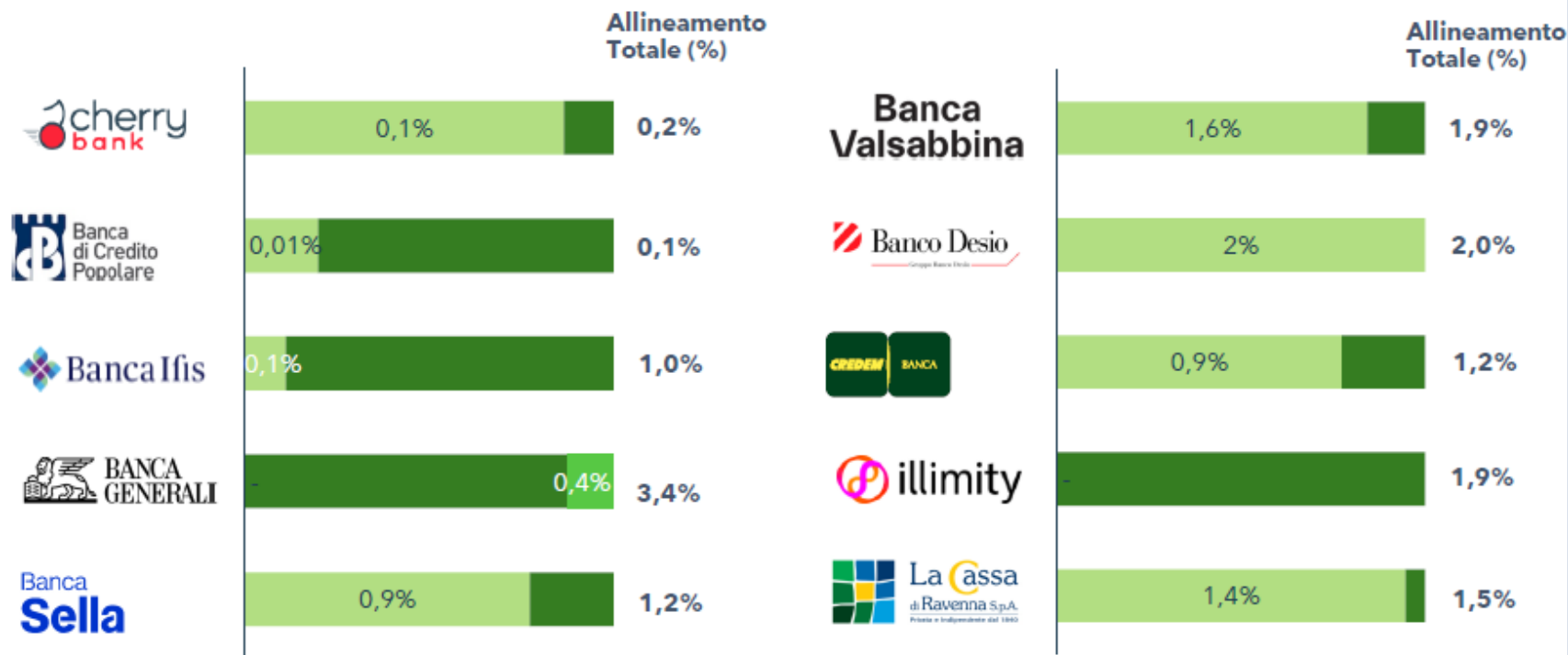
**Media Allineamento: 1,4%**

Legenda: ■ Attivi allineati ■ Attivi ammissibili non allineati

Elaborazione SCS sulla base dei dati pubblicati all'interno delle Rendicontazioni di Sostenibilità 2024. I valori riportati si riferiscono ai dati di turnover.

Cherry Bank presenta **valori di ammissibilità e allineamento contenuti**, sia lato prestiti verso famiglie che imprese in perimetro CSRD.

# TASSONOMIA - FOCUS ALLINEAMENTO



**Media Allineamento Immobili: 0,7%**

**Media Allineamento vs imprese: 0,7%**

Legenda: ■ Prestiti verso famiglie garantiti da immobili ■ Prestiti verso amministrazioni locali ■ Esposizioni verso imprese CSRD

Elaborazione SCS sulla base dei dati pubblicati all'interno delle Rendicontazioni di Sostenibilità 2024. I valori riportati si riferiscono ai dati di turnover.

I grafici analizzano il **GAR Stock** pubblicato dagli enti creditizi in perimetro, specificando la quota di allineamento derivante da **imprese soggette a CSRD e prestiti verso famiglie**. Il **valore medio dell'allineamento derivante dai prestiti alle famiglie garantiti da immobili è 0,7%** su un **totale di allineamento pari al 1,4%**, circa il 50%.

Si evidenzia ancora un basso livello di maturità rispetto all'allineamento delle **esposizioni verso amministrazioni locali** e delle altre esposizioni verso famiglie, dal momento che non risultano **finanziamenti per l'acquisto di autoveicoli o finanziamenti per ristrutturazioni** e solo una banca ha finanziamenti verso amministrazioni locali.

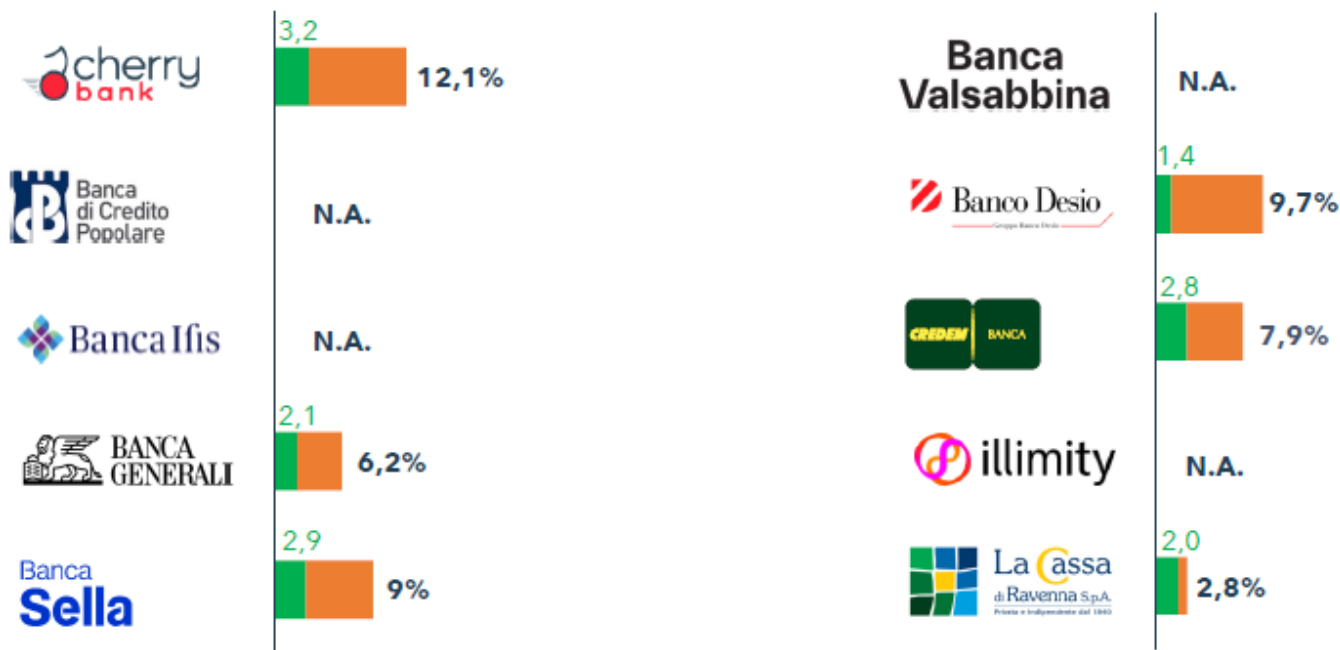
Le esposizioni allineate di Cherry Bank sono **principalmente prestiti verso famiglie garantiti da immobili** (circa l'87% del totale, mentre la media del campione è del 50%), mentre le esposizioni verso imprese CSRD sono molto contenute.



# TASSONOMIA - ASSETS UNDER MANAGEMENT



I grafici analizzano i risultati del benchmark sulle esposizioni fuori bilancio, in particolare il KPI sugli **Assets Under Management** degli enti creditizi. Sono riportate le quote di ammissibilità e allineamento totali rispetto ai 6 obiettivi ambientali: il **valore medio di ammissibilità è pari a 7,9%** mentre il **valore medio di allineamento è pari a 2,4%**.



**Media Ammissibilità: 7,9%**

**Media Allineamento: 2,4%**

Legenda: ■ Attivi allineati ■ Attivi ammissibili non allineati

Elaborazione SCS sulla base dei dati pubblicati all'interno delle Rendicontazioni di Sostenibilità 2024. I valori riportati si riferiscono ai dati di turnover.

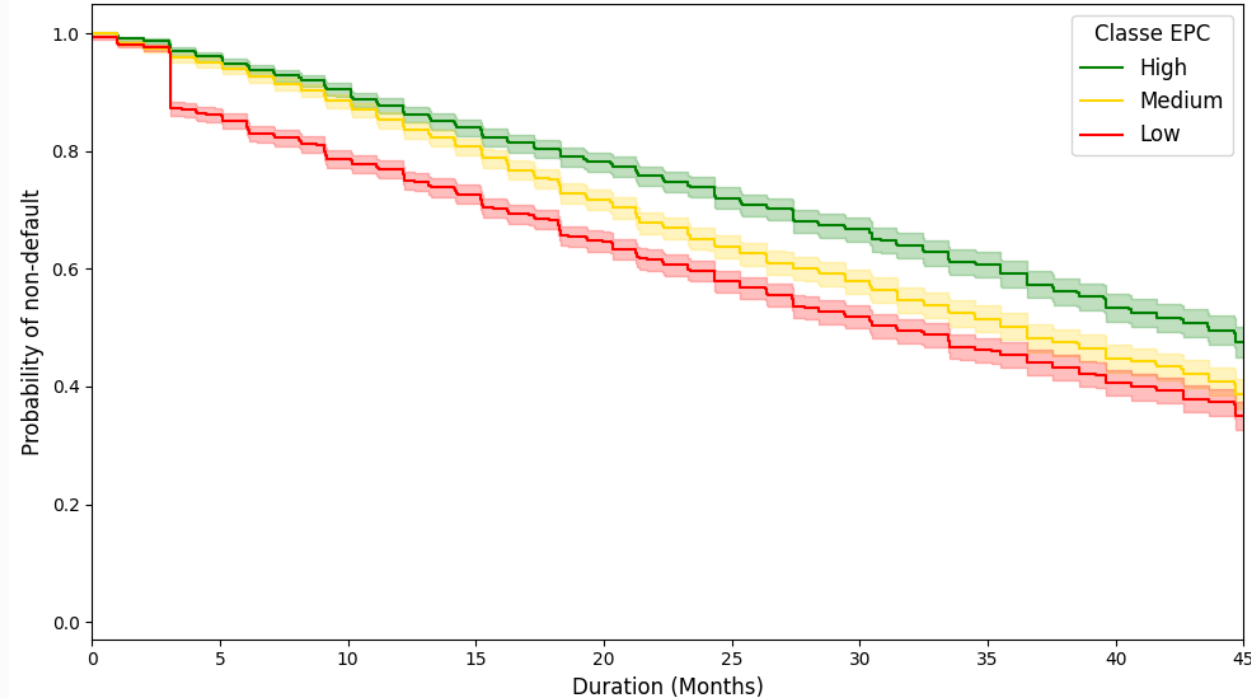
**Cherry Bank risulta essere la principale banca del campione per quanto riguarda gli Assets Under Management, presentando valori ampiamente sopra la media sia di ammissibilità che allineamento.**



# ENGAGE for ESG

analisi con i dati di European DataWarehouse

Kaplan Meier curve for Energy Performance Certificate



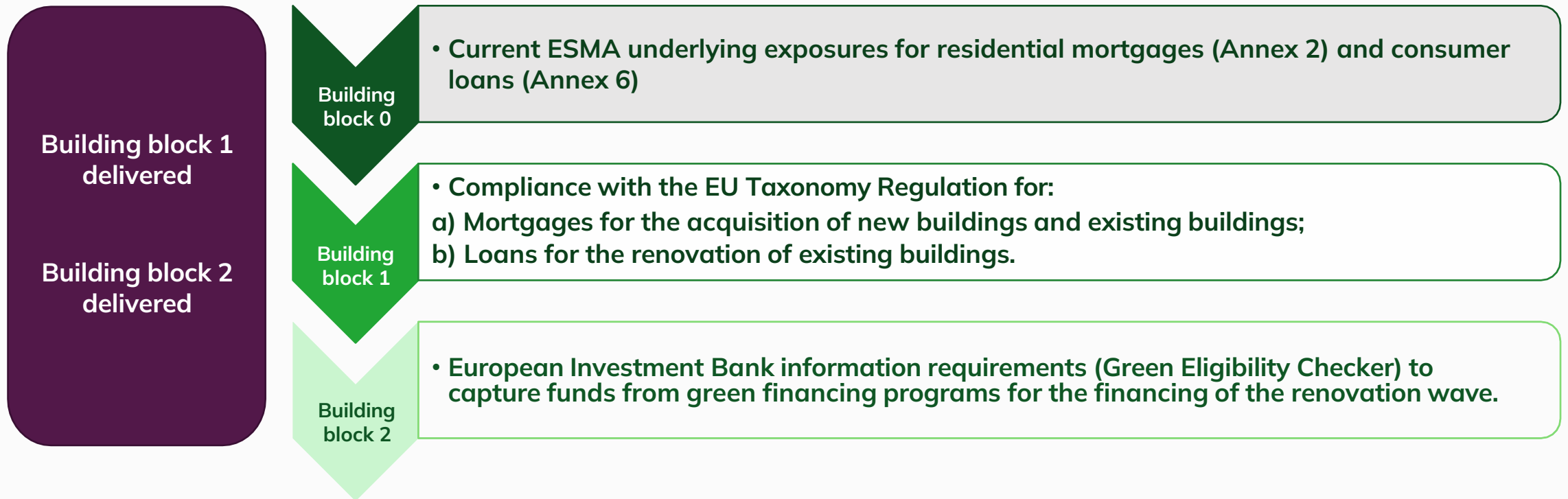
- **Evidenza empirica** – l'attributo *Efficienza Energetica* (EE) migliora i modelli di rischio nel predire la probabilità di default (Billio et al., 2021; 2022; Guind & Korhonen, 2022)
- **Probabilità di default** – stimata con dati mutuatario + controlli geografici + immobiliari
- **Efficienza energetica (EE)** – binaria: 1 se immobile classe A/B, 0 altrimenti
- **Dati EDW (ESMA, Reg. UE 2020/1225)** – 531.975 mutui residenziali, 1.42% in default
- **Geografia** – Francia & Paesi Bassi (prevalenti), più altri 7 paesi UE/UK
- **Metodi** – logit, analisi di sopravvivenza, machine learning (LightGBM)
- **Obiettivo** – valutare l'impatto dell'efficienza energetica sul rischio di default
- **Risultati** - anche sui nostri dati, l'EE migliora i modelli di previsione del default



PAESE	%	EE ( $\beta$ )	Odds Ratio
Francia	74.75	-0.279**	0.76
Paesi Bassi	21.95	-0.694***	0.50
Altri paesi	3.30	-0.747**	0.47

EFFICIENZA ENERGETICA	Mediana di sopravvivenza (mesi)
ALTA	47
MEDIA	39
BASSA	29

# The ENGAGE Templates: structure





# ENGAGE Templates renovation – ESMA annex 6

## Building block 0

						ND Options for the BUILDING BLOCK 0		ND Options for the BUILDING BLOCK 1				
BUILDING BLOCK	TEMPLATE CATEGORY	SECTION	FIELD CODE	FIELD NAME	CONTENT TO REPORT	ND1-ND4 allowed?	ND5 allowed?	ND1-ND7 allowed?	ND5 allowed?	FORMAT	Building block 0: Minimum level of fields for mortgages	
0	ANNEX 6: CMR	Underlying exposures information section	Underlying exposures information section									
0	ANNEX 6: CMR	Underlying exposures information section	CMRL1	Unique Identifier	The unique identifier assigned by the reporting entity in accordance with Article 11(1) of Delegated Regulation (EU) ... [include number of the disclosure RTS].	NO	NO			{ALPHANUM-28}	Y	
0	ANNEX 6: CMR	Underlying exposures information section	CMRL2	Original Underlying Exposure Identifier	Unique underlying exposure identifier. The identifier must be different from any external identification number, in order to ensure anonymity of the obligor. The reporting entity must not amend this unique identifier.	NO	NO			{ALPHANUM-1000}	Y	
0	ANNEX 6: CMR	Underlying exposures information section	CMRL3	New Underlying Exposure Identifier	If the original identifier in field CMRL2 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in CMRL2. The reporting entity must not amend this unique identifier.	NO	NO			{ALPHANUM-1000}	Y	
0	ANNEX 6: CMR	Underlying exposures information section	CMRL4	Original Obligor Identifier	Original unique obligor identifier. The identifier must be different from any external identification number, in order to ensure anonymity of the obligor. The reporting entity must not amend this unique identifier.	NO	NO			{ALPHANUM-1000}	Y	
0	ANNEX 6: CMR	Underlying exposures information section	CMRL5	New Obligor Identifier	If the original identifier in field CMRL4 cannot be maintained in this field enter the new identifier here. If there has been no change in the identifier, enter the same identifier as in CMRL4. The reporting entity must not amend this unique identifier.	NO	NO			{ALPHANUM-1000}	Y	
0	ANNEX 6: CMR	Underlying exposures information section	CMRL6	Data Cut-Off Date	The data cut-off date for this data submission.	NO	NO			{DATEFORMAT}	Y	
0	ANNEX 6: CMR	Underlying exposures information section	CMRL7	Pool Addition Date	The date that the underlying exposure was transferred to the SSPE. For all underlying exposures in the pool as at the cut-off date in the first report submitted to the securitisation repository, if this information is not available then enter the later of: (i) the closing date of the securitisation, and (ii) the origination date of the underlying exposure.	NO	YES			{DATEFORMAT}		



# ENGAGE Templates renovation

## Building block 1

						ND Options for the BUILDING BLOCK 0		ND Options for the BUILDING BLOCK 1			
BUILDING BLOCK	TEMPLATE CATEGORY	SECTION	FIELD CODE	FIELD NAME	CONTENT TO REPORT	ND1-ND4 allowed?	ND5 allowed?	ND1-ND7 allowed?	ND5 allowed?	FORMAT	Building block 0: Minimum level of fields for mortgages
1	ENG Annex 6: CMR Add-on	Primary Energy Demand (PED)	ERER11	Primary Energy Demand (PED) of the building - pre renovation	Value of the Primary Energy Demand for the building as displayed on the Energy Performance Certificate pre-renovation. This value should be displayed as total primary energy use in kWh/m2 per year			YES	YES	{INTEGER-9999}	
1	ENG Annex 6: CMR Add-on	Primary Energy Demand (PED)	ERER12	Primary Energy Demand (PED) of the building - post renovation	Value of the Primary Energy Demand for the building as displayed on the Energy Performance Certificate post renovation. This value should be displayed as total primary energy use in kWh/m2 per year and must not include the renewable energy sources			YES	YES	{INTEGER-9999}	
1	ENG Annex 6: CMR Add-on	Renovation amount information	ERER15	Balance for renovation of existing buildings	The amount that meets the criteria for SCC 7.2: Renovation of Existing Buildings shall comply with one of the following conditions:  1. The renovation meets the applicable requirements for major renovations as stipulated in national and regional building regulations implementing Directive 2010/31/EU; or 2. Alternatively, the renovation achieves a reduction in Primary Energy Demand (PED) of at least 30%. This 30% improvement must result from an actual reduction in PED, excluding reductions attributable to the use of renewable			YES	YES	{INTEGER-9999}	
1	ENG Annex 6: CMR Add-on	Building information	ERER19	Financed CO2-emission	Financed emissions for residential real estate refer to the portion of a building's greenhouse gas (GHG) emissions attributable to the financial institution providing funding for the property. These emissions are calculated as follows:  Financed Emissions = (Total Property Emissions) × (Outstanding Loan or Investment / Property Value). The			YES	YES	{tCO <sub>2</sub> e}	







# ENGAGE Templates renovation – EIB green checker

## Building block 2

						ND Options for the BUILDING BLOCK 0		ND Options for the BUILDING BLOCK 1 and 2			
BUILDING BLOC	TEMPLATE CATEGORY	SECTION	FIELD CODE	FIELD NAME	CONTENT TO REPORT	ND1-ND4 allowed?	ND5 allowed?	ND1-ND7 allowed?	ND5 allowed?	FORMAT	Building block 0: Minimum level of fields for
2	ENG Annex 6: CMR Add-on	ENGAGE Additional Renovation - EIB fields									
2	ENG Annex 6: CMR Add-on	Economic Activity information	EIBR1	Unique Identifier	Report the same unique identifier here as the one entered into field CMRL1.			NO	NO	{ALPHANUM-28}	
2	ENG Annex 6: CMR Add-on	Economic Activity information	EIBR2	Underlying Exposure Identifier Building block 0	Unique identifier for each underlying exposure. This must match field CMRL3.			YES	YES	{ALPHANUM-1000}	
2	ENG Annex 6: CMR Add-on	Building information	EIBR3	Is the building renovation compliant with the applicable requirements for major renovations?	Is the building renovation compliant with the national and regional building regulations for 'major renovation' implementing Directive 2010/31/EU? - "Yes" - "No"			YES	YES	{LIST}	
2	ENG Annex 6: CMR Add-on	Building information	EIBR4	Methodology followed according to the EPBD definition of major renovation	Which methodology has been used for the major renovation definition? a) the total cost of the renovation relating to the building envelop is higher than 25% of the value of the building b) more than 25% of the surface of the building envelop undergoes renovation. - "A" - "B"			YES	YES	{LIST}	
2	ENG Annex 6: CMR Add-on	Primary Energy Demand (PED)	EIBR5	Primary Energy Demand (PED) of the building - pre renovation	Value of the Primary Energy Demand for the building as displayed on the Energy Performance Certificate pre-renovation. This value should be displayed as total primary energy use in kWh/m <sup>2</sup> per year.			YES	YES	{INTEGER-9999}	
2	ENG Annex 6: CMR Add-on	Primary Energy Demand (PED)	EIBR6	Primary Energy Demand (PED) of the building - post renovation	Value of the Primary Energy Demand for the building as displayed on the Energy Performance Certificate post renovation. This value should be displayed as total primary energy			YES	YES	{INTEGER-9999}	







# REMAIN INFORMED

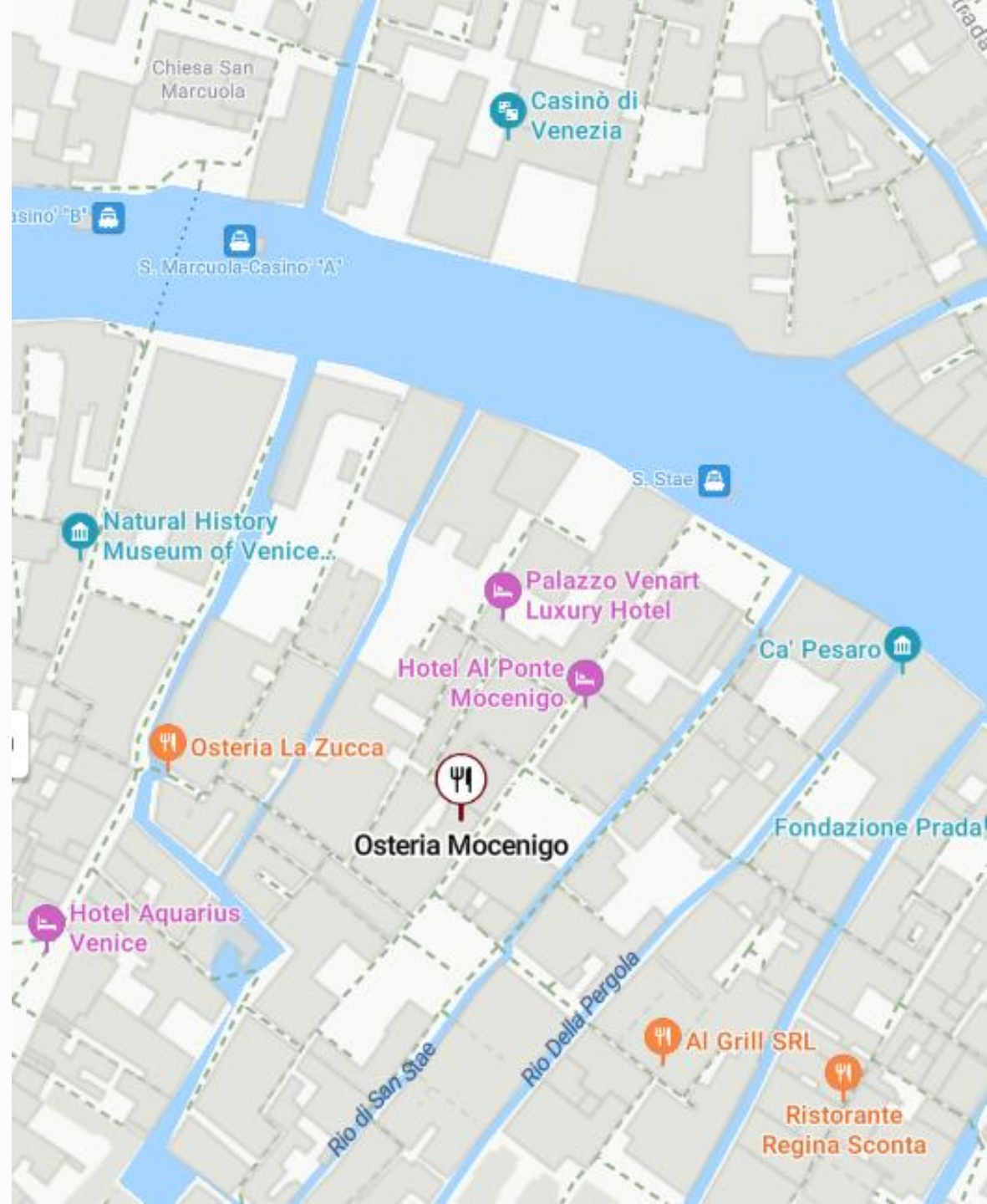


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# ENGAGE for ESG dinner

- The ENGAGE for ESG Consortium is delighted to invite participants of the ENGAGE for ESG workshop “Trends towards the simplification of ESG reporting” to a typical Venetian dinner on **Friday, 26 September** at **20:00**, at **Osteria Mocenigo**, Salizada San Stae, Santa Croce 1919, 30135, Venice.
- Please contact us through the following form if you would like to attend:  
<https://forms.office.com/e/k8WheWGJyV>





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**Project Coordinator:**

Marco Angheben  
[marco.angheben@eurodw.eu](mailto:marco.angheben@eurodw.eu)

**ENGAGE General Contact:**

[engage@eurodw.eu](mailto:engage@eurodw.eu)

**Communications:**

Carla Scarsella  
[carla.scarsella@eurodw.eu](mailto:carla.scarsella@eurodw.eu)