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Energy Performance Certificates (EPC)

Implementation of the EU Taxonomy in the built environment

October 2023

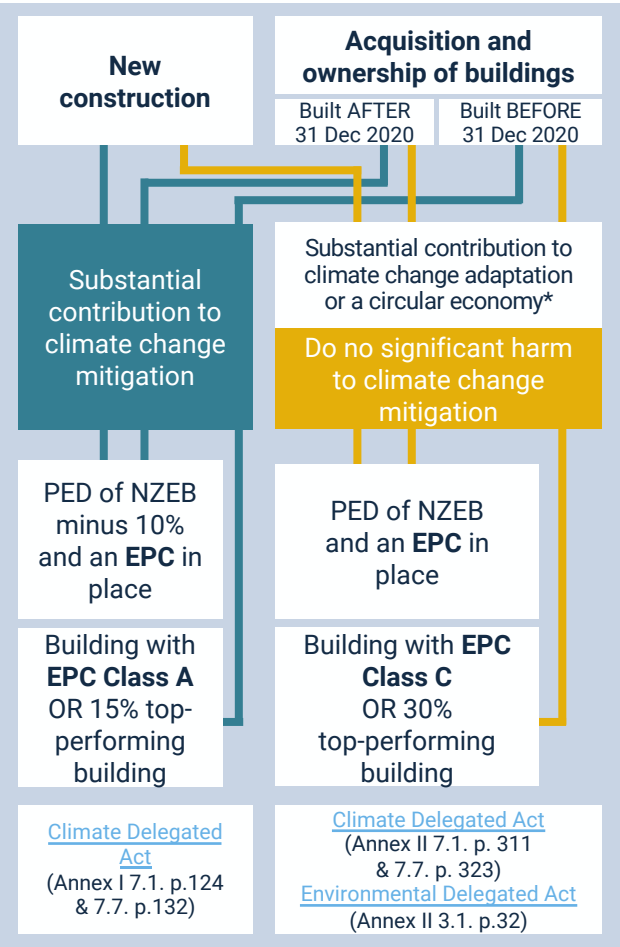
EPCs under the EU Taxonomy

The EU Taxonomy for the construction, acquisition and ownership of buildings refers to energy performance certificates (EPCs) as per the Energy Performance of Buildings Directive (EPBD).

The EPBD sets out a framework for EPCs. EPC schemes are developed and run by national governments.

Companies and financial institutions that wish to, or are required to, report their EU Taxonomy-alignment for the buildings they construct, acquire or own, need to refer to the nearly zero energy building (NZEB) standards and EPC schemes – based on divergent primary energy demand (PED) thresholds – of each of the Member States where those buildings are located.

This can pose significant challenges, especially to organisations with economic and financial activities across several EU countries or beyond.



** No substantial contribution criteria for a circular economy for the acquisition and ownership of buildings*

Implementation challenges

EPCs aren't available for all buildings

EPC schemes do not cover all building types across the European continent, e.g. industrial buildings. Moreover, the majority of buildings do not have an EPC readily-available.

Divergent EPC schemes

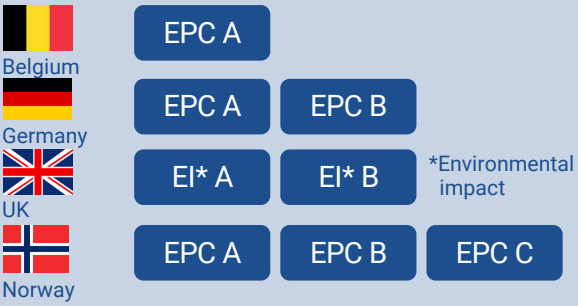
The implementation and content of EPCs varies quite considerably across the Member States. As a result EPC class A refers to significantly different ambition levels in terms of energy performance.

In several countries EPC class A represent a similar level of ambition as NZEB, passive house or energy positive standards, whereas in several other Member States EPC class A do not represent the highest level of ambition for example where EPC classes go beyond EPC class A (in the Netherlands the highest EPC class is EPC A ++++).

Buildings' EPCs do not reflect real energy performance

EPCs reflect the estimated energy demand of buildings whereas the actual energy consumption of buildings often largely varies thus not providing sufficient insights in the real performance of buildings.

15% **top performing buildings in national building stock equal to:**



Climate Bonds Initiative

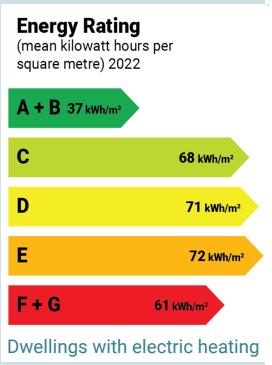
CBI's buildings criterion for green bond eligibility is 15% top-performing buildings: Location Specific Criteria for Residential Buildings.

Case study: EPC scheme links to real-world metering

> 50% **Irish buildings have an EPC**

Ireland's Central Statistics Office (CSO) combines EPC data with other data sources to publish comprehensive quarterly EPC data.

CSO now links real-world energy meter readings from Gas Networks Ireland and Eirgrid (electrcity grid) with data from buildings with an EPC.



Recommendations

- **Permit the use of alternative proxies to EPCs**

  The European Commission should formally amend the Climate Delegated Act to enable the use of proxies to EPC (e.g. BREEAM, LEED, DGNB) where the use of EPCs is not possible or available.

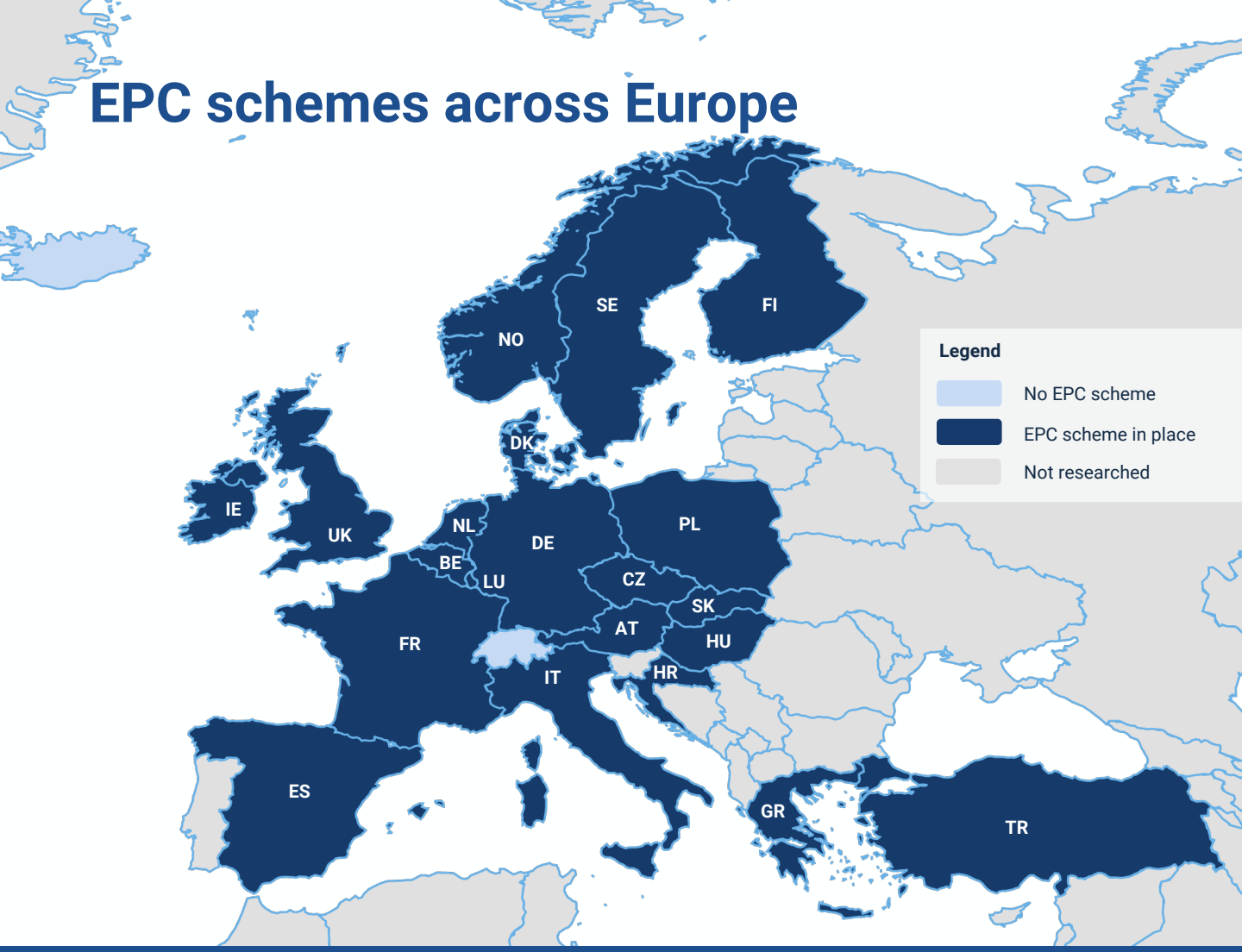
  For example, the Climate Delegated Act could include the following text from the additional guidelines from 19 December 2022: "Where [building standards (LEED, BREEAM, DGNB)] can help demonstrating compliance with the [technical screening criteria] TSC, they can be accepted for the purpose of compliance with the TSC."

- **EU should incorporate real annual energy performance measurement to EU Taxonomy**

  There are well documented discrepancies between calculations of primary energy demand (PED) and actual energy consumption under real world conditions.

  By incorporating real energy performance measurement of buildings into the regulatory framework investors would be able to better understand the true climate impact of the assets in their portfolio. This data could be used, for example, to inform the alternative criteria of the 15% top performers.

EPC schemes across Europe



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The EU Taxonomy working group enhances consensus and collective learning from across the value chain, builds capacities amongst the industry and advocates for an ambitious yet practically implementable framework.

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Nearly Zero Energy Buildings (NZEB)

Implementation of the EU Taxonomy in the built environment

October 2023

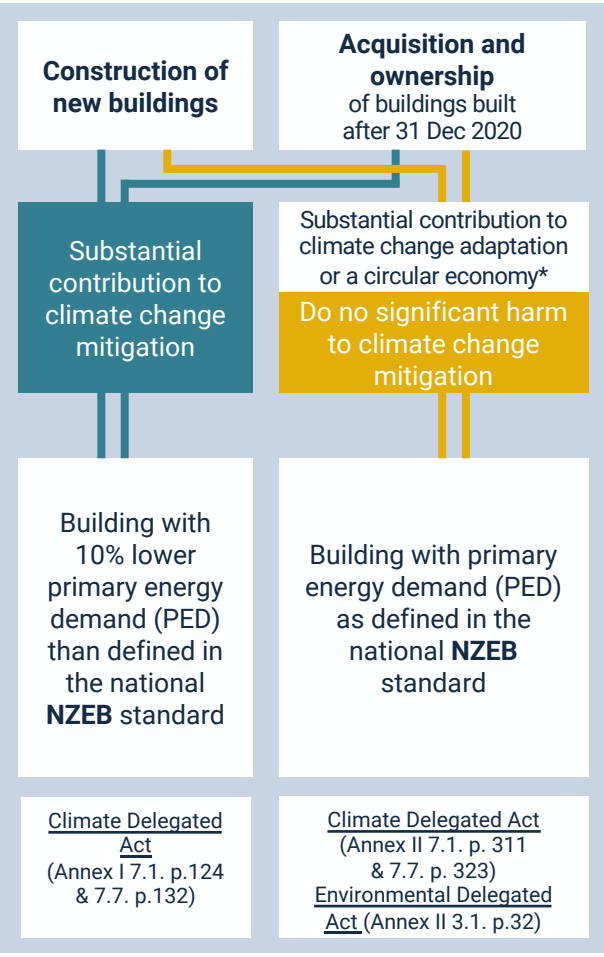
The link between NZEB and the EU Taxonomy

The EU Taxonomy for the construction, acquisition and ownership of buildings requires the disclosure of a building's primary energy demand (PED) as per the Energy Performance of Buildings Directive (EPBD) of 2010.

The EPBD does not include specific energy thresholds, but mandates Member States to provide a national interpretation of an NZEB.

Companies and financial institutions that wish to, or are required to, report their EU Taxonomy-alignment for the buildings they construct, acquire or own, need to do so in line with the PED levels set out in the NZEB definitions of each of the Member States where those buildings are located.

This can pose significant challenges, especially to organisations with economic and financial activities across several EU countries or beyond.



** No substantial contribution criteria for a circular economy for the acquisition and ownership of buildings*

Implementation challenges

Lack of comparability

NZEB standards are based on divergent methodologies, broadly split between absolute or relative energy requirements (e.g. to a reference building) and based on different PED and floor space measurement approaches. Thus, the energy performance thresholds (PED/m^2) aren't directly comparable across countries.

Lack of accessibility

NZEB requirements are hidden in long and technical building codes and standards, often in legal language, not easily accessible (e.g. the German standard is behind a paywall) and not available in English.

NZEB standards comprise several metrics, of which PED is only one, often rendering the extraction of the PED parameter difficult.

Data on energy performance is also not readily available, prohibiting progress to report against NZEB standards.

Double counting of renewable energy

In many Members States, NZEB standards allow for the use of onsite, or even offsite renewable energy to comply with the Primary Energy Demand thresholds. The EU Taxonomy, however, separates out investments into renewable energy and energy efficiency investments while the PED thresholds only refer to energy efficiency investments.

This can lead to a risk of double counting renewable energy when complying with the NZEB standard and reporting to the EU Taxonomy and therefore skew EU Taxonomy percentage alignment.

The requirements under the EPBD are not in line with those of the EU Taxonomy

The concept of NZEBs are more comprehensive than the reference to Primary Energy Demand thresholds that the EU Taxonomy sets.

The EPBD recast is also likely to replace NZEB with a new standard – zero emissions buildings (ZEBs), suggesting NZEB will soon be an outdated standard.

Recommendations

- **National governments should publish relevant NZEB PED levels**

  Until updated criteria for buildings are released, policymakers should disclose which PED levels are in line with the EU Taxonomy to ensure that the EU Taxonomy is practically implementable and understood by the industry.

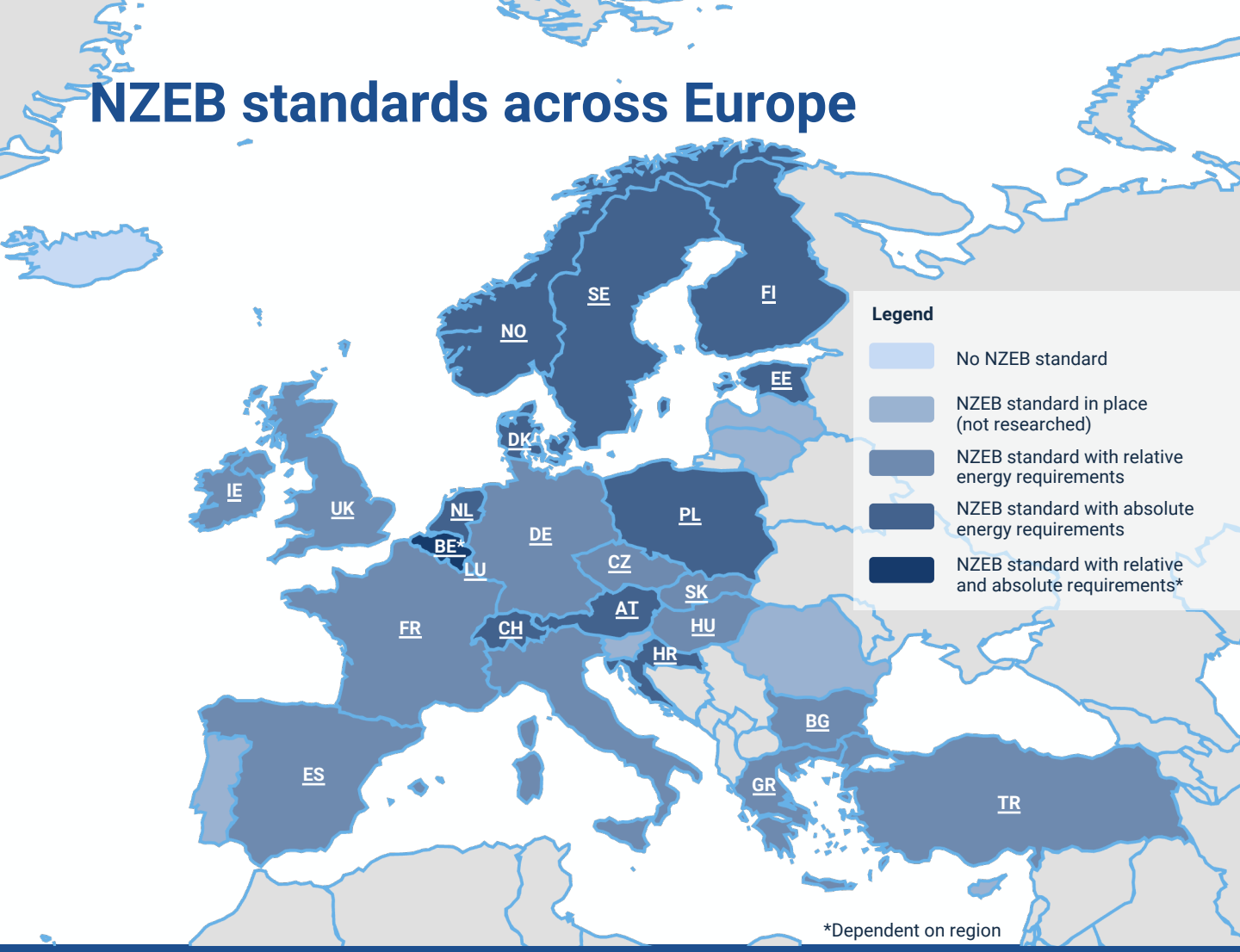
- **Harmonise ZEBs**

  Ensure a more harmonised approach of the new standard – zero emissions buildings – to ensure a smoother usability of the EU Taxonomy in the future.

- **Expand embodied carbon requirements under the Taxonomy to all buildings**

  Currently only buildings with 5.000 square metres or more are required to disclose life-cycle global warming impacts of the building they construct. All buildings should disclose these impacts, which include energy/carbon other than from the operational use of a building, such as the embodied energy from constructing a building. All buildings should report these impacts for a substantial contribution to climate change mitigation.

NZEB standards across Europe



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Major renovations

Implementation of the EU Taxonomy in the built environment

October 2023

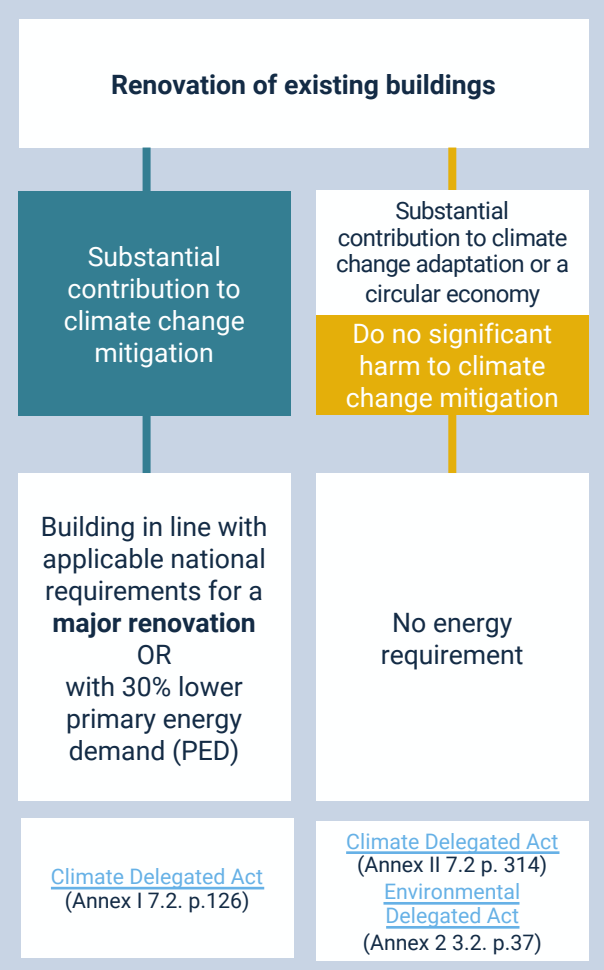
Renovation under the EU Taxonomy

The EU Taxonomy for the renovation of buildings is linked to the term “major renovation” as per the Energy Performance of Buildings Directive (EPBD) of 2010.

The EPBD does not prescribe a uniform definition of a major renovation, but enables Member States to provide one.

Companies and financial institutions that wish to, or are required to, report their EU Taxonomy-alignment for the buildings they renovate need to refer to national requirements of a major renovation set out by each of the Member States where those buildings are located.

This can pose significant challenges, especially to organisations with economic and financial activities across several EU countries or beyond.



Implementation challenges

The term "major renovation" is not yet well established, used nor clearly defined

In the EPBD "major renovation" is linked to the surface of the building renovated or the cost of renovation. This is being implemented very differently across Member States and often not accurately measured. The alternative criteria to reduce primary energy demand (PED) at least 30% is much easier to comply with.

Confusion between major and deep renovations

The terms major and deep renovations are used interchangeably, and the definitions of the terms aren't clear to market participants or regulators. Also, the translation of the English term "major renovations" in the EPBD 2010 is not easily tracked in national building regulations.

Unclear role of demolition

The term "demolition" is almost not addressed in any national interpretation of a major renovation. It is unclear whether the full or partial demolition of a building is allowed as part of a major renovation.

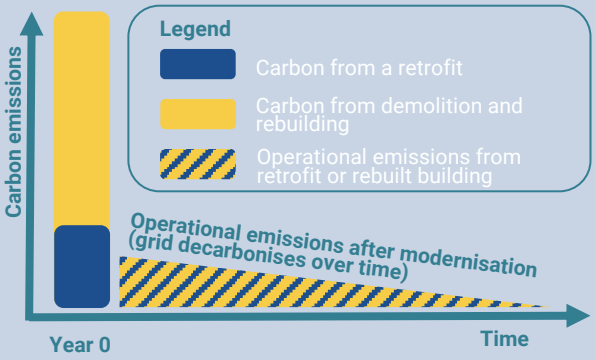
At the same time, the Taxonomy requirements for waste from renovation are difficult to comply with and risk impeding progress on renovation.

EU Taxonomy encourages investments into new construction over renovation

The EU Taxonomy currently does not include climate impact considerations of embodied carbon – emissions associated with materials and construction processes used throughout the whole lifecycle of a building.

The EU Taxonomy focuses on the energy performance of buildings. It is much easier to construct an energy efficient building than to retrofit an existing building to a high standard.

In this sense, the EU Taxonomy is not in line with the objectives of the EU Green Deal or the EU Renovation Wave.



Case study: Permission refused for major demolition in London

Marks & Spencer was refused permission to demolish and rebuild its Oxford Street store from 1930. Its demolition would cause 40 000 tonnes of embodied carbon.

Recommendations

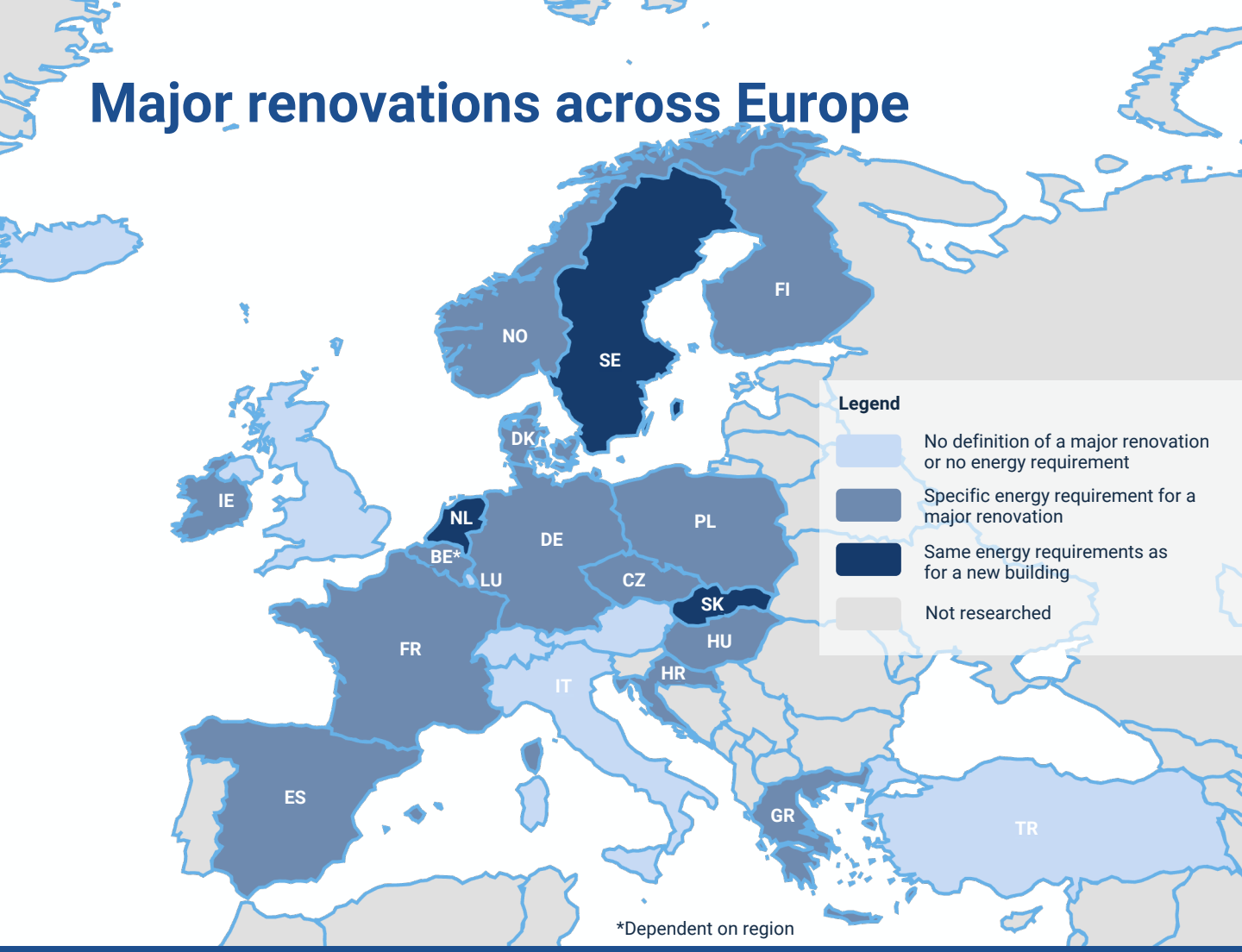
- **Add embodied carbon assessments for renovation of buildings and/or rule out demolition**

  A building renovation substantially contributing to climate change mitigation should disclose embodied carbon impacts (life-cycle global warming potential is the term currently anchored in the current Delegated Act for buildings over 5000m^2). This is in line with policy advancements in several Member States such as Netherlands, Finland, Denmark, France, or Sweden.

- **Agree on a more harmonised definition of a major renovation**

  The European Commission and Member States should agree on a more harmonised definition of a major and deep renovation. The EU Commission should add embodied carbon assessments for the construction of a building, the demolition and rebuilding of a building, and the renovation / retrofitting of a building to allow comparability. Member States should provide further incentives for investors to choose energy renovation over construction.

Major renovations across Europe



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