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(Building) Renovation Passports within the European Union

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Content

Genesis of Renovation Passports (RP) within the EU/EPBD

Content of a Renovation Passport

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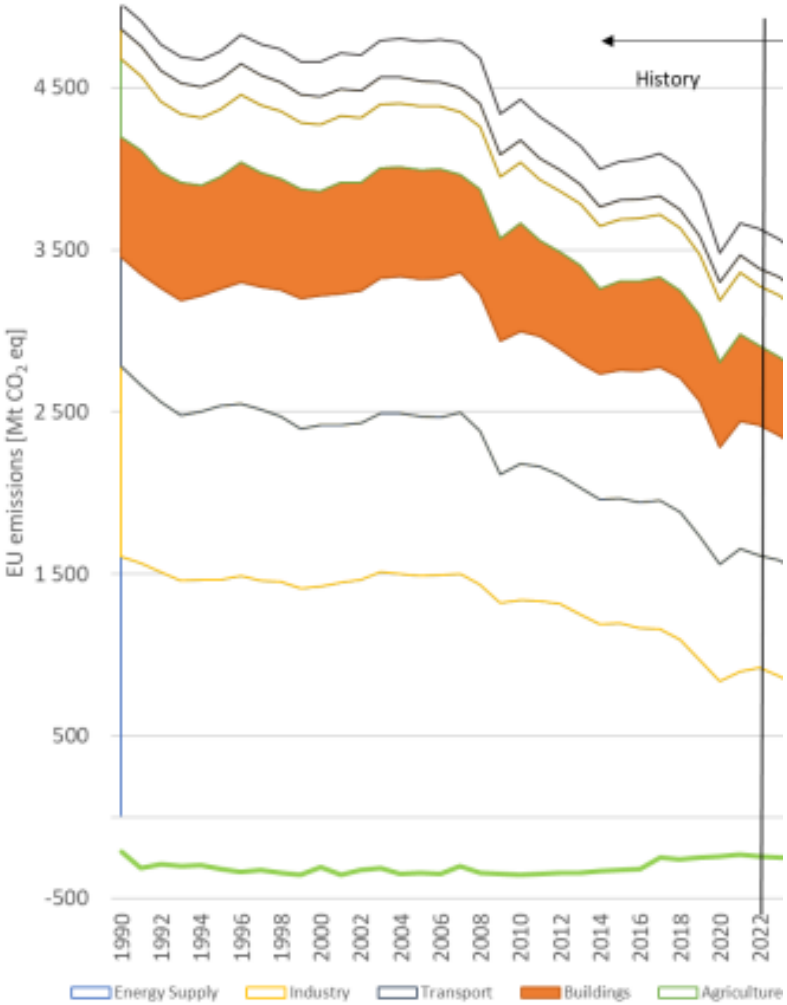

Figure 1: Historic EU buildings GHG emissions [1]

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- Buildings have always been accountable for a large share of the EU GHG emissions, approx. 36% today. [1][2]
- 75% of the EU building stock is energy inefficient per today. [3]

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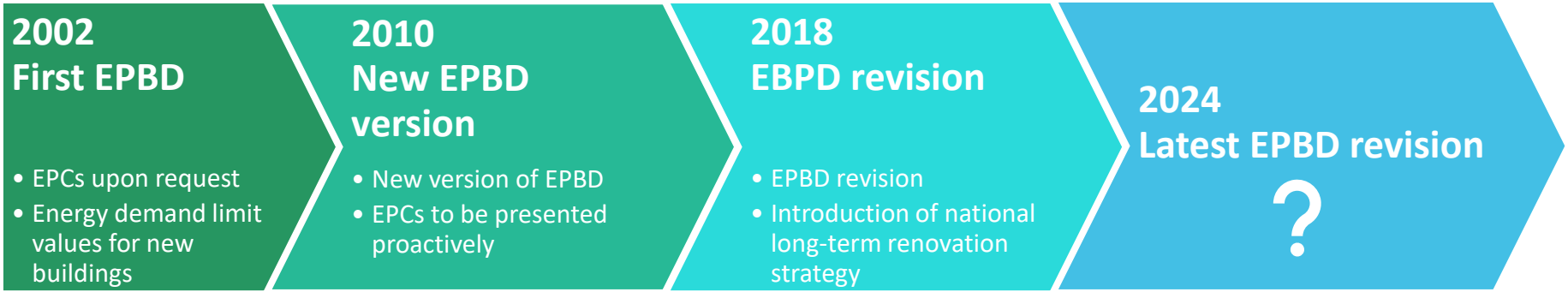

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2024 EPBD

- Renovation passports are targeted in Article 12 and Annex VIII.
- MS must introduce a national RP scheme within 24 months after enactment of EPBD, i.e. 28th May 2026.

Renovation Passport

"…a tailored roadmap for the deep renovation of a specific building in a maximum number of steps that will significantly improve its energy performance."

Deep renovation

"…a renovation which is in line with the 'energy efficiency first' principle, which focuses on essential building elements, and which transforms a building or building unit into a

- nZEB before 1st January 2030
- ZEB after 1st January 2030

Staged deep renovation

"…a deep renovation carried out in a maximum number of steps, asset out in a renovation passport."

Mandatory content of a Renovation Passport

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Current energy performance of the building	• Final or primary energy in kWh • May include on-site produced electrical energy and other indicators as developed by the X-tendo project [4]
Graphical representation of the renovation passport	• For a well-received example have a look at the iBRoad2EPC project [5]
Information on relevant national requirements	• Application dates • Building type specific schedule if available

Mandatory content of a Renovation Passport

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Figure 2: Output from the iBRoad2EPC Assistant [5]
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Mandatory content of a Renovation Passport

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Explanation of the optimal renovation step sequencing	• The optimal sequencing is strongly dependant on various factors, e.g.:
	  • current building state
	  • (future) national requirements

Information on each renovation step	• The explanation shall include
	  • Savings in energy consumption, GHG emissions and on the energy bill
	  • Energy class

Information about a potential connection to district heating or cooling	• Municipal heating plans provide orientation • Lock-in effects shall be avoided

Mandatory content of a Renovation Passport

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Share of renewable energy	• Before and after the renovation
General information on improvement options for various other aspects of a green building	• Embodied emissions • Circular aspects of building components • Health and comfort
Information on funding	• Links to relevant web pages
Information on technical advice	• Contact details • Links to one-stop shops

Optional content of a Renovation Passport

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- Indicative timing of renovation steps
- Details for each renovation step, e.g. estimated cost, construction time, in-depth technology description
- More independent modules, e.g. a list of relevant architects and craftsmen, readiness for low temperature heating
- Information about accessing the digital version of the RP
- Already carried out major renovations of the building or the envelope
- Information on seismic safety
- Additional information such as adaptability of spaces or planned renovations

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2024 EPBD

- Latest revision poses mandatory and optional content requirements on RPs
- RPs aim for a deep renovation of buildings
  - nZEB until 2030
  - ZEB as of 2030
- RPs shall be issued digitally and be stored in a national database, e.g. Digital Building Logbook

Mandatory national framework

- To be in place until 28th May 2026
- Voluntary to use for owners (unless made mandatory by MS)

Sequence of steps

- Sequenced renovation ensures cost-optimal renovation in accordance to national requirements
- Avoid lock-in effects

Joint issuance of RP and EPC

- Strengthening synergies and maximising impacts
- Saving time and cost

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