

Embodied carbon assessment:
a must for sustainable
construction

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Embodied & whole-life carbon

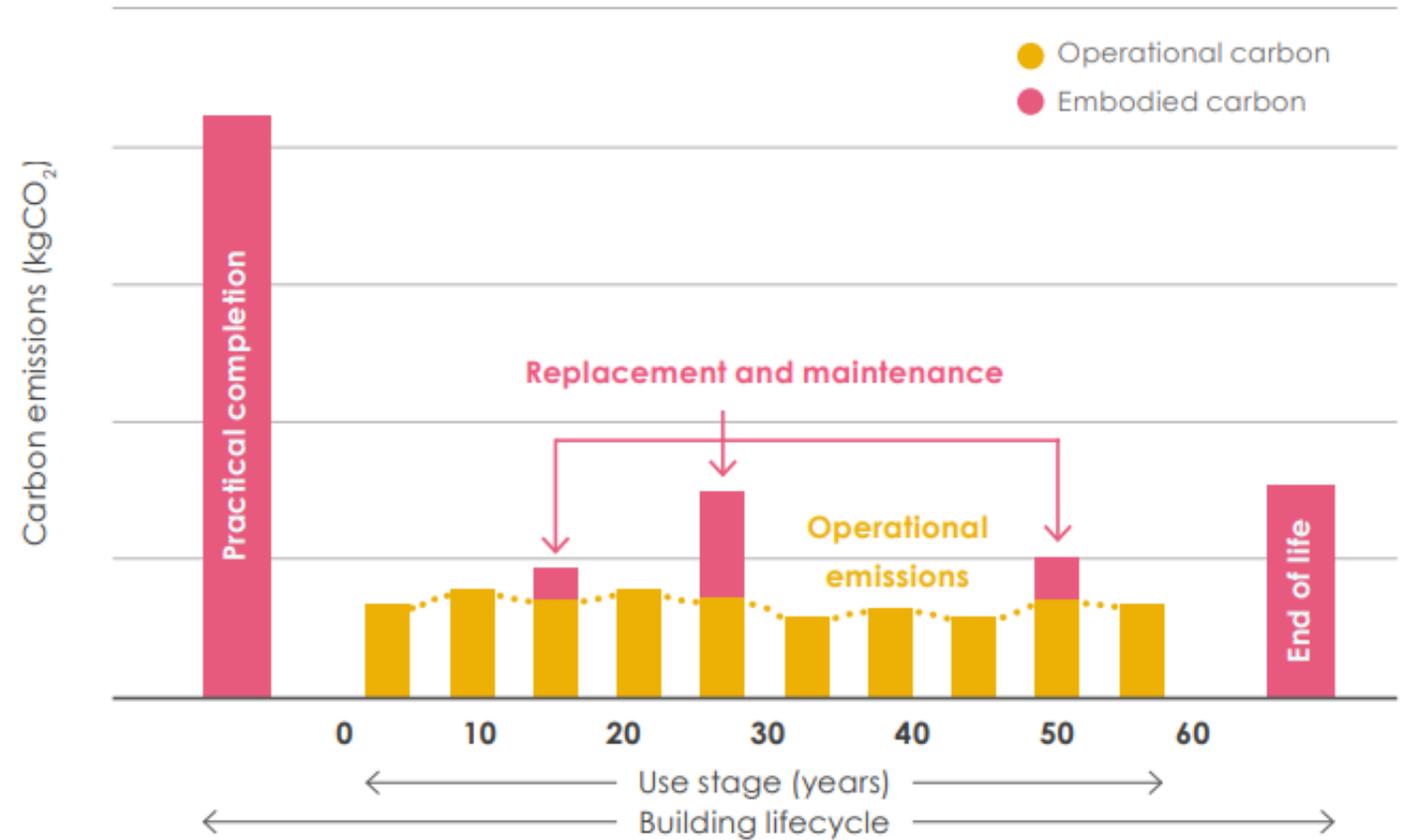
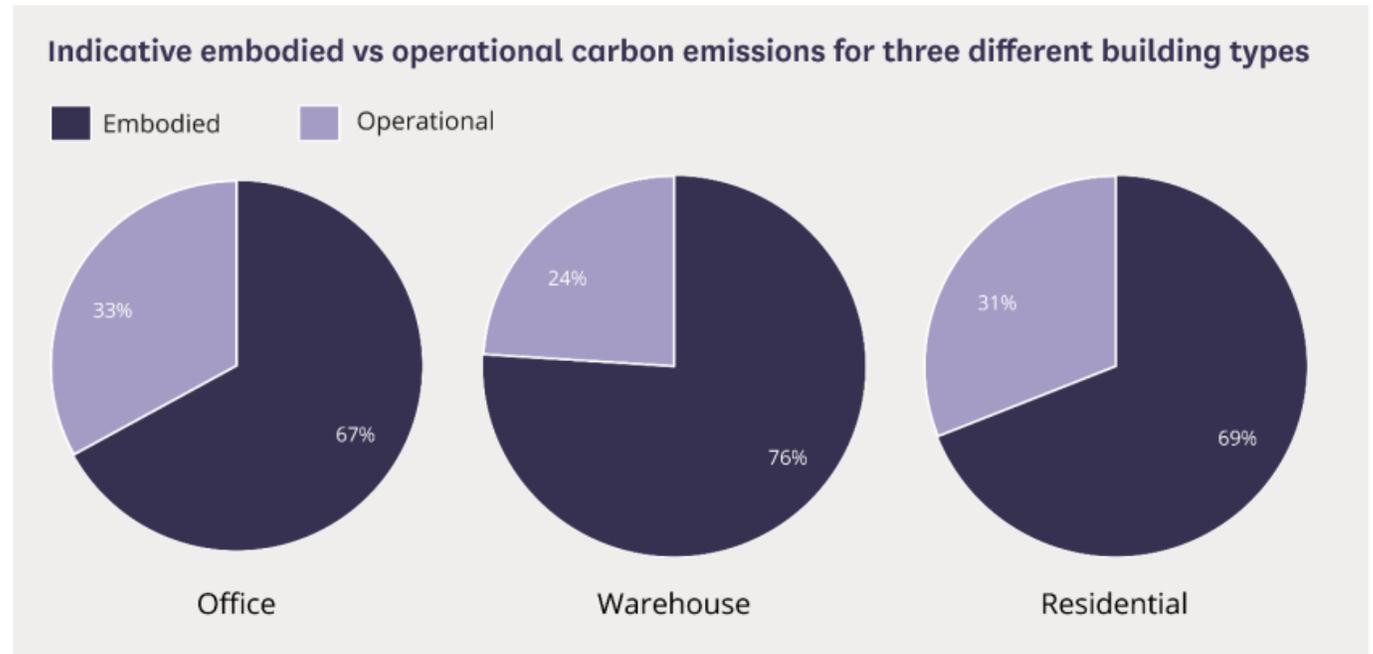


Diagram from LETI Embodied Carbon Primer

Embodied carbon – Why?



Source: Redesigned with permission from RICS 'Whole life carbon assessment for the built environment' (2017).

A proposed amendment to The Building Regulations 2010

UK
Regulation?

<https://part-z.uk/>

Whole life carbon

Z

APPROVED DOCUMENT

Z1 Carbon assessments

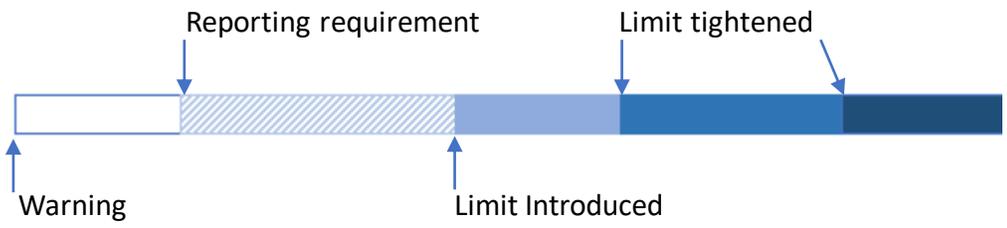
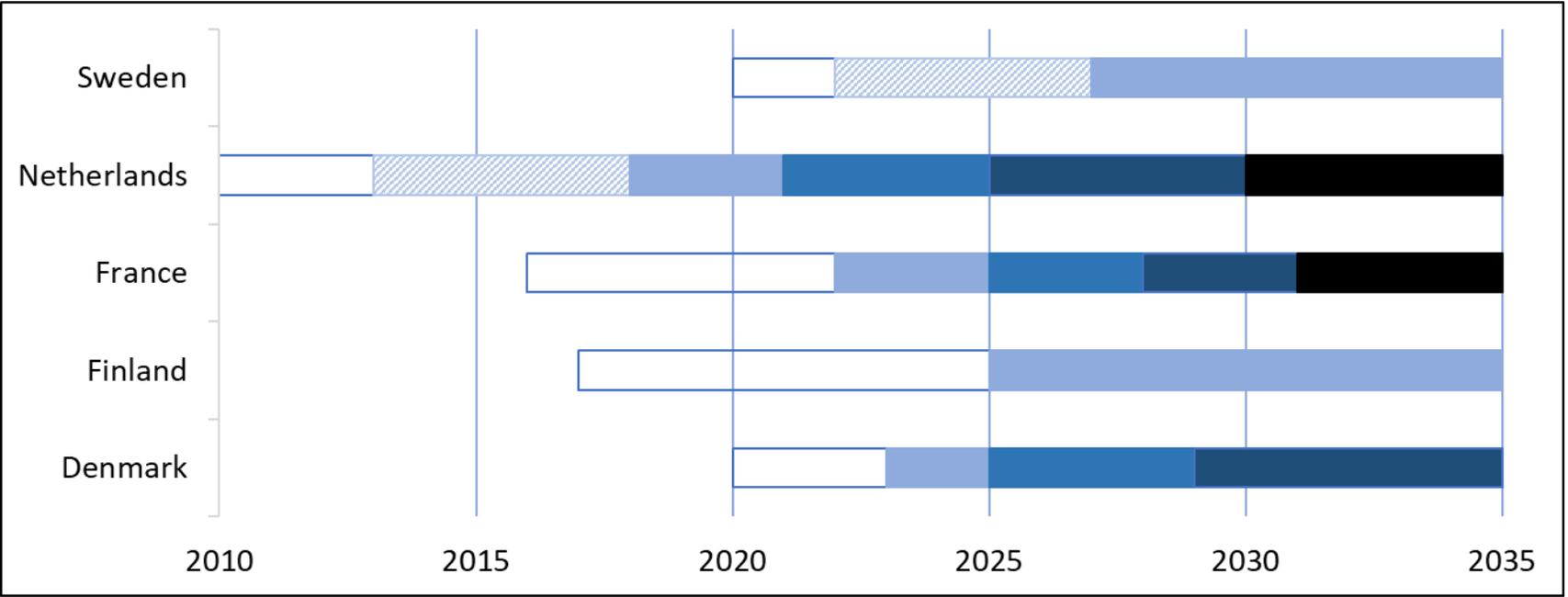
Z2 Carbon intensity

Disclaimer: This document is not yet part of the Building Regulations. It has been produced by and in conjunction with the construction industry as a proof of concept in order to demonstrate one way in which embodied carbon could be introduced into UK regulation. For accompanying commentary on this document, visit www.part-z.uk, or contact hello@part-z.uk

Proposal revision 0
20 July 2021

A proposal from the construction industry

Embodied carbon regulation in Europe



France RE2020 Regulation

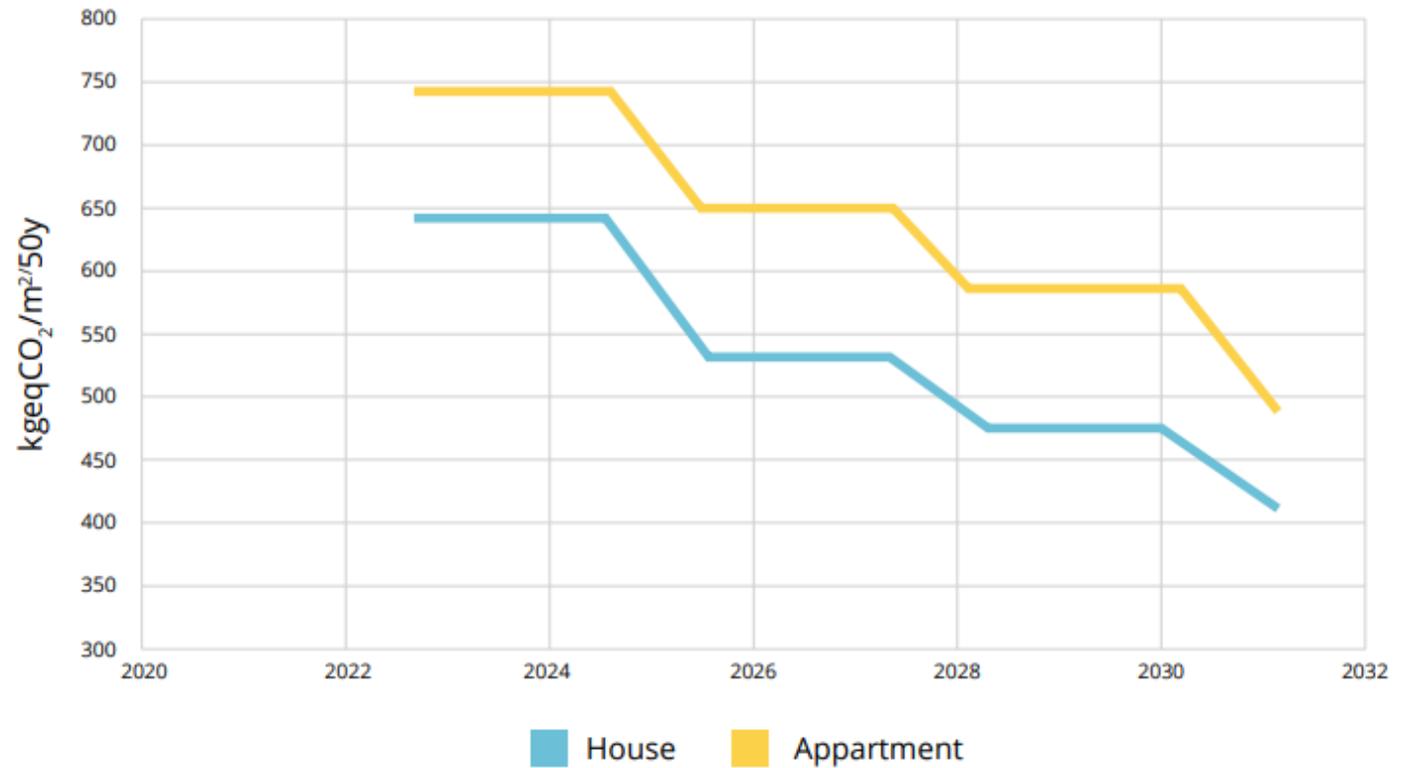


Diagram from BPIE Report – Implementing the Paris Agreement and reducing greenhouse gas emissions through The life cycle of buildings: European public policies, tools and market initiatives

Embodied Carbon Labels

Project Name: Project ABC Project Sector: Office Assessment Date: 27/03/2021 Assessment By (company): LETI Location of Data: London	Upfront Carbon A1-5 (exc. sequestration) (kgCO ₂ e/m ²)	Embodied Carbon A1-5, B1-5, C1-4 (kgCO ₂ e/m ²)
A++	100	150
A+	225	345
A	350	530
B	475	730
C	600	920
D	725	1100
E	850	1280
F	975	1465
G	1100	1625
Non-Listed Typology:		
Sequestered Carbon:	-50 kgCO ₂ e/m ²	
Module D:		30 kgCO ₂ e/m ²

Upfront Carbon, A1-5 (exc. sequestration)

Band	Office	Residential	Education	Retail
A++	<100	<100	<100	<100
A+	<225	<200	<200	<200
A	<350	<300	<300	<300
B	<475	<400	<400	<425
C	<600	<500	<500	<550
D	<775	<675	<625	<700
E	<950	<850	<750	<850
F	<1100	<1000	<875	<1000
G	<1300	<1200	<1100	<1200

Source: LETI Embodied Carbon Target Alignment



Thank You!

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Acknowledgements

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