BELLONA EUROPA

POSITION PAPER

CEMENT AND CONCRETE LABELS

ASSESSING THE EXISTING PROPOSALS AGAINST THE EU OBJECTIVES AND BELLONA'S SUGGESTIONS

The European Commission announced the creation of an European label for cement under the Industrial Accelerator Act (IAA), cornerstone of the Clean Industrial Deal (CID)[1]. But why is it so important to have such a label?

- A voluntary EU-level labelling scheme would provide a **clear and consistent way to disclose the Global Warming Potential (GWP)** of cement for non-technical audiences.
- This is **aligned with the requirement to report GWP under the Construction Products Regulation**, which becomes mandatory in January 2026**.**
- The label would **support both public and private buyers** in selecting cement products that match their decarbonisation goals, without needing technical expertise or carrying out complex comparisons.
- In public procurement, it would **simplify tender processes** when specifying low-carbon cement and **reduce administrative burden** for both procurement officials and potential suppliers.
- Establishing a **common EU-level scheme** would enhance data comparability and support a shared pathway for decarbonising the European cement sector.

Evaluating the existing proposals

To date, the most relevant proposals for a cement label come from Cement Europe[2] and the Global Cement and Concrete Association (GCCA)[3], with both labels being based on the International Energy Agency (IEA) paper from 2022.

Similarly to what was proposed for steel, the IEA proposed a **sliding scale principle**, with the "sliding" factor being the clinker content: the higher the clinker content, the less strict the label limits become. However, both the GCCA and Cement Europe require countries or Member States (MS) to fix a specific clinker content, and use it to convert the sliding scale to a fixed labelling scale, exactly what the VDZ—the German cement trade association—did with the "Cement Carbon Class". In the EU case, however, this **would result in the creation of 27 different labels**, one per Member State.

1 European Commission (2025). The Clean Industrial Deal: A joint roadmap for competitiveness and decarbonisation. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52025DC0085

2 CEMBUREAU (2025). Unlocking Lead Markets for Low-Carbon Cement: a labelling proposal by CEMBUREAU. https://cembureau.eu/media/tbadd5cz/250611-cembureau_position-paper-cement-label.pdf

3 Global Cement and Concrete Association (2024). Global Cement and Concrete Association Numerical Definitions for Low Carbon and Near Zero Cement. https://gccassociation.org/wp-content/uploads/2025/07/GCCA_Cement_Definitions_for_Low_Carbon_and_NearZeroPolicy_Digital.pdf

Figure 1 shows how the proposed system works based on the GCCA proposition.

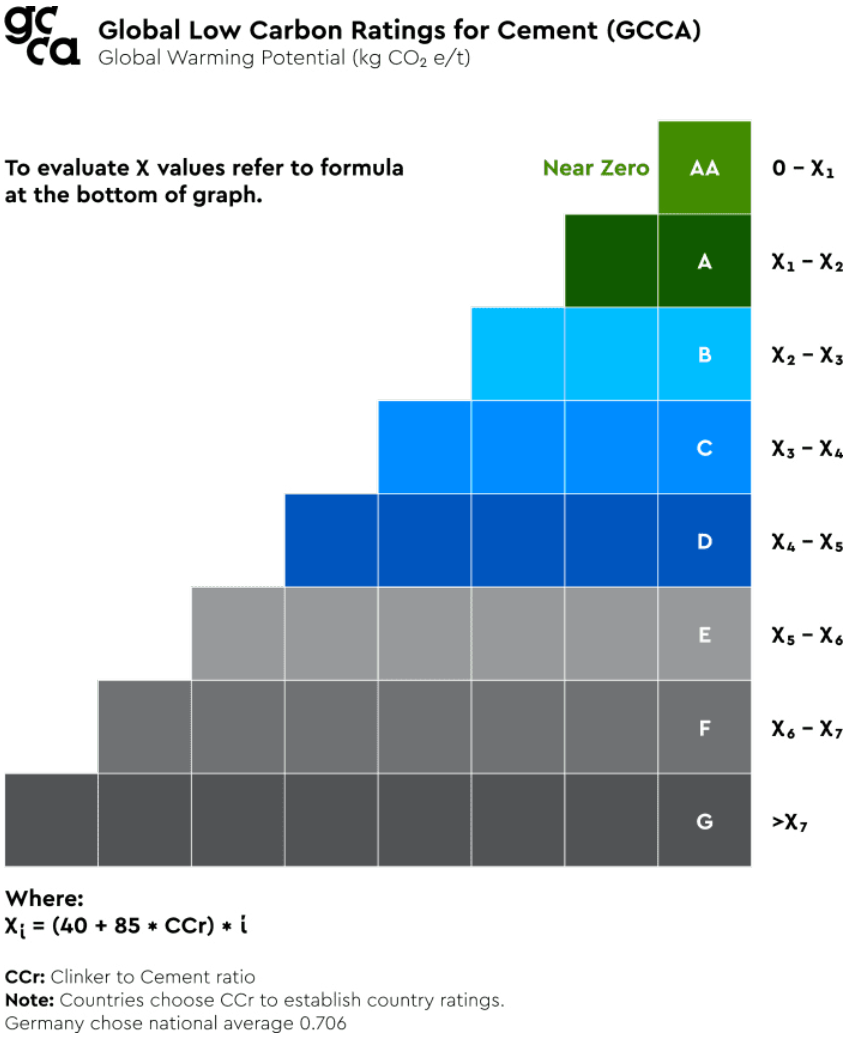

Figure 1. GCCA proposal for cement label[4].

The figure shows that each rating boundary is determined by the clinker content, following the equation provided at the bottom of the image.

In Bellona's view, the approach proposed by the IEA presents both advantages and trade-offs. The main concern about the sliding scale principle is that **it disincentivises the use of Supplementary Cementitious Materials (SCMs)** —used to reduce the clinker content and emissions— in favour of Carbon Capture and Storage (CCS) and permanent Carbon Capture and Utilisation (CCU) as the limit for higher clinker content is less strict. In addition, the upper limit of emissions changes according to the clinker content. Because clinker has a much higher carbon footprint than other components in cement, a cement with no clinker would be classified as "near-zero" emitting 40 kg CO_2/t, while a cement with 100% clinker could also be called "near-zero" even though it emits up to 125 kg CO_2/t. This means that the **range of emissions within the category increases by about 200%** when going from 0% clinker to 100% clinker.

4 Global Cement and Concrete Association (2024).

Moreover, discouraging the use of supplementary cementitious materials, such as fly ash, slag, calcined clays, or recycled materials, which are price competitive and readily available, is counterproductive, because it goes against the ongoing shift towards a more circular economic model. SCMs are central to this transition because they lower CO_2 emissions and make use of materials that would otherwise go to waste. Still, it could be argued that **having less strict limits for CCS-based low-carbon cements might promote their uptake across Europe**, accelerating CCS deployment, which is also needed for deep decarbonisation of this and other sectors. At the same time, the goal of the label should not be to promote a specific technology, but rather decarbonise the sector by pulling all the levers as they become available.

The proposal of GCCA[5] Cement Europe[6] to require each Member State to set their own fixed clinker content for the label **addresses some concerns about discouraging the use of SCMs** and improve comparability of emission intensities across cement types. In addition, it would allow each Member State to set the clinker content to better reflect the domestic manufacturing context, and choose an appropriate level of decarbonisation ambition. However, **this approach risks fragmenting the internal market** as the label would represent different values in each Member State, complicating cross-border procurement and product comparison. In this scenario, companies based in Member States with less ambitious clinker-to-cement ratio reductions in their label could gain an unfair advantage against their competitors in neighbouring countries, achieving as they would be allowed to have a better label with higher emissions, **effectively discouraging investments** in deep decarbonisation. While the label would not have to be revised periodically to accurately represent the progress towards industry decarbonisation in each country, the **definition of what is considered low-carbon would change periodically.** Finally, allowing each Member State to choose its clinker content could result in a system where less ambitious policies dominate, limiting overall sector-wide decarbonisation.

One option is to set an **EU-wide clinker content** for the label, ensuring that all producers follow the same rules for labelling and enhancing comparability of carbon intensity data across the bloc. This approach, though, comes with both trade-offs and benefits. On the one hand, setting an EU average would necessarily consider the reality of countries that are lagging behind on decarbonisation, incentivising them to act and invest on decarbonising their production at a faster rate. On the other hand, producers with a lower carbon intensity than the average will receive an advantage as their product is automatically quality for a better label class, reducing the incentives for further investments, which are still needed.

5 GCCA (2024)
6 CEMBUREAU (2025).

The label should pave the way for the EU to attain its strategic and decarbonisation objectives

While all considerations reported so far are important to find the best option for a voluntary EU labelling scheme, one key aspect seems to be still absent: the cement and concrete sector's contribution to the European climate targets. In this regard, the labelling system should reflect the industry advancements and the reduction in greenhouse gas (GHG) emissions necessary to strengthen the resilience and competitiveness of the European construction sector, as well as to reach climate neutrality by 2050.

For this reason, **Bellona proposes a different approach** towards the creation of a cement and concrete label: instead of focusing on the material composition as the criterion for the sliding scale, the label would use time-based limits. Therefore, **the limits for the different classes would become stricter over time**, in line with the intermediate decarbonisation milestones for 2030, 2035, 2040, and 2045, consistent with the EU's emission reduction objectives. This approach would ensure that the **concept of low-carbon cement is clearly defined and sufficiently ambitious**, with target sets at 5-year intervals, providing a **structured, stepwise path**, as shown in Figure 3, that drives industry-wide innovation and European competitiveness over time.

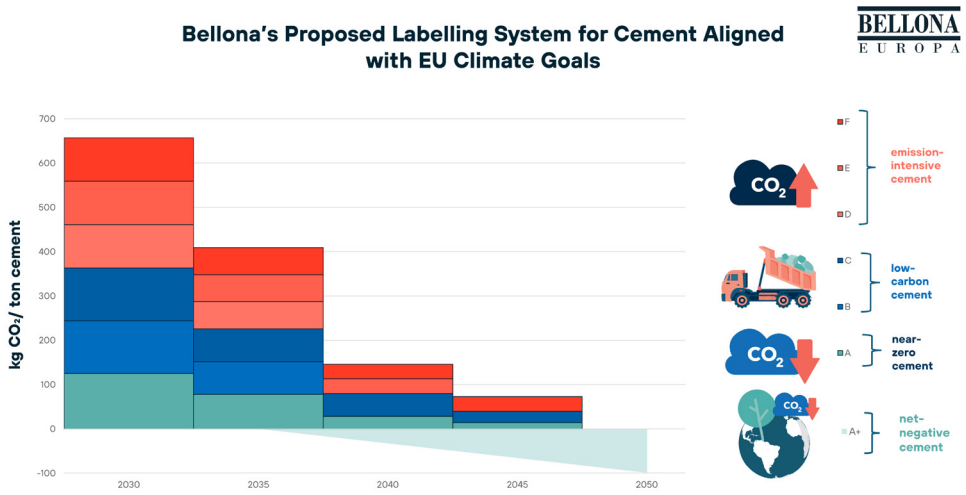

Figure 2. Labelling system for cement based on the EU climate goals as proposed by Bellona.

This proposal follows the **economy-wide European targets** and not the sector specific ones and assumes a 55% reduction in emissions by 2030 and a 90% one by 2040 compared with 1990 values, with a linear reduction limit in 2035 and 2045. **The values are based on a baseline value of 804 kg CO2/t of cement,** the EU's average for 1990. Moreover, to avoid having overly narrow classes, especially for low-carbon cement, some categories have been removed. The resulting system defines:

- **Class G**: very high carbon intensity which represents any composition with emissions higher than rating F.

- **Classes F-E-D:** starting from the European average in 2021 of 657 kg CO_2/t, to progressively lower-emission cement.
- **Classes C-B**: low-carbon cement, aligned with the Independent Science-Based Taxonomy (ISBT) definition and compliant with the climate objectives of the European Union.
- **Class A**: near-zero cement, achieving a 65.5% emission reduction compared to low-carbon cement, following GCCA guidance when clinker factor is 1.
- **Class A+**: cement production generating net-negative emissions (removing more than is emitted) across the supply chain. The values presented in Figure 2 are only indicative of what can be achieved in terms of negative emissions and it is intended to represent the potential of the industry of removing CO_2 from the atmosphere, especially after reaching climate neutrality in 2050.

Under this categorisation, it is important to consider that only low-carbon and near-zero cement are in line with the European pathway for decarbonisation. Still, ratings D—F have been included as they represent cement compositions performing better than average from a climate perspective, rewarding progress and emissions reduction even if falling short of what is needed to contain climate change below 1.5°C.

Missing steps: a concrete label

While setting up a cement label is a step in the right direction, Bellona supports the proposal of the GCCA and the Buy Better to Build Better coalition (BBBB)[7] of **creating a concrete label as well**. Specifically, **concrete is the material used in construction that is actually procured**, and the use of a low-carbon cement does not necessarily lead to low-carbon concrete, as other considerations enter the equation. Having a concrete label in place that complements the cement label would reflect both the cement used and the design choices for concrete.

In this case, both GCCA and BBBB propose a sliding scale for concrete that is **based on the compressive strength of the final material**, as a higher cement content -and therefore higher emissions- is needed to develop higher strength levels. The proposal by BBBB is represented in Figure 3.

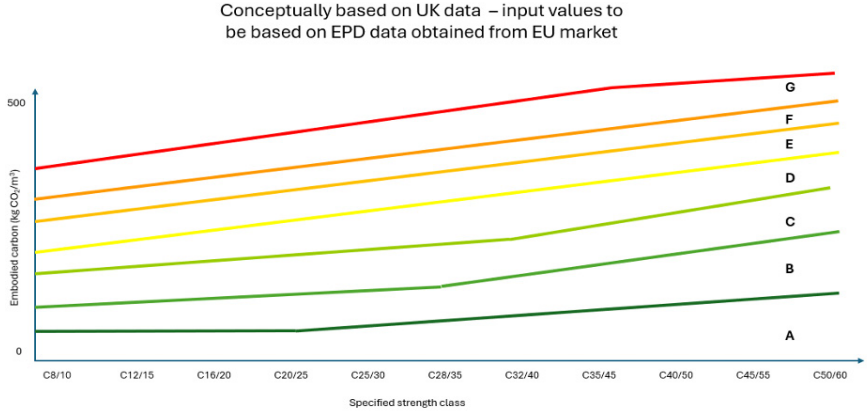

Figure 3. Buy Better to Build Better coalition proposal for a concrete label[8].

7 Buy Better to Build Better coalition (2025). Creating Lead Markets for the Construction Sector Through Effective Public Procurement. Recommendations for the upcoming Industrial Decarbonisation Accelerator Act. https://www.ecostandard.org/wp-content/uploads/2025/07/BBBB-Creating-lead-markets-for-the-construction-sector-through-effective-public-procurement-July-2025.pdf

8 Buy Better to Build Better coalition (2025).

For a concrete label, Bellona supports including **strength as a parameter** in the cement label proposed by Bellona. **The same time-based approach can be applied**, creating a separate sliding scale for each 5-year period between 2030 and 2050, linked to the EU's decarbonisation targets.

CONTACT

Marco Sirotti
Policy Advisor
Embodied Carbon

Phone
Mobile +32 465 899 614

Online
Email: marco@bellona.org
Website: eu.bellona.org

Irene Domínguez
Policy Manager
Embodied Carbon & Lead Markets

Phone
Mobile +32 488 764 936

Online
Email: irene@bellona.org
Website: eu.bellona.org

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