Discussion paper

Six steps to prevent another lost decade for our planet – getting the revision of the Construction products Regulation right

Brussels, October 2022

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Introduction

No other industry in the EU consumes more resources, energy and produces more waste by weight – and is a formidable polluter - than the construction industry.

Enormous amounts of materials and carbon are embodied in the bult environment. Common materials that are part of our houses and infrastructure, such as concrete, bricks, gypsum, lime and copper, require approximately **1.6 billion tonnes** of raw materials per year, **half of the EU's overall consumption** and an average of four tonnes for every EU resident. This figure is even more daunting when thinking that the sector produces **one-third of overall waste generated in the EU**[1], the majority of which does not get reused or recycled at present. Overall, construction products have an embodied carbon footprint of **250 million tonnes** every year. **Cement, steel, aluminium and plastics account for 80% of those emissions**[2].

With global material demand set to increase two- to four- fold[3] and barely stabilising in Europe according to 2050 projections, strong demand- and supply- side measures are needed to decarbonise the construction industry. Though the Energy Performance of Buildings Directive (EPBD), revision proposes to require accounting and disclosure of the Whole Life Carbon[4] of all new buildings by 2030, this alone will not suffice to drive large scale demand for more sustainable construction products in the EU Single market. Moreover, it will not address any products used for renovation, which is set to be the greatest source of demand for construction products over the next decade.

Currently under revision, product-level legislation, **the Construction Products Regulation (CPR), is the only remaining chance to structurally transform the construction sector**, by introducing environmental regulation to a sector that has been always give a free pass with regards to its footprint on our planet.

The CPR is the main piece of European legislation regulating the internal market for construction products in the EU. **Over the past two decades, the CPR has failed to regulate the environmental impacts of the sector**[5], with no obligations imposed on manufacturers. Despite a revision in 2011 and the increasing pressure for all sectors of our economy to decarbonise, the construction sector is at least a decade behind other sectors, while being one of the top polluters.

The **proposal by the Commission** in March 2022 represents a first step towards regulating some of the most pressing issues related to the environmental performance of products. While introducing a first layer of ecodesign requirements, the latter are not directly applicable and will require an additional set of secondary legislation which foresees no timeline for development. With its overall framework still anchored on a failing standardisation system and with no timeline for implementation in sight, **no change can be expected over the next decade unless more fundamental reforms are introduced**.

[1] 2022. European Commission. Construction and demolition waste (europa.eu)
[22] 2022. European Commission. Impact assessment study supporting the CPR Revision.
[3] 2021. Material Economics. The Circular Economy - a Powerful Force for Climate Mitigation
[4] Lifecycle greenhouse gasses warming potential.
[5] 2018. VVA Economics et al, Evaluation report of the CPR.

Yet, most other products placed on the EU Single Market will see impactful measures being developed under a new Regulation – **the Ecodesign for Sustainable Products Regulation (ESPR)**. The ESPR will introduces a significant range of provisions, from information to performance requirements, aiming at making all products on the EU market sustainable - meaning low in their carbon footprint, resource efficient, toxic-free, circular – with a much clear implementation plan. This means that, while the environmental impacts of other products will be effectively regulated in the future, regulation of construction products and their impact depends on vague provisions.

In view of the timid changes, and to align to CPR with more effective instruments such as the ESPR, we outline **six points** on how the CPR must be strengthened to put an end to all blind spots limiting its efficiency and ensure its contribution towards an effective decarbonisation of the construction sector.

Step 1: Cement should not be regulated by the CPR

As the **second-most-consumed product globally** after water[6], cement accounts for **8% of the world's emissions every year**[7]. CO2 intensity of cement production – the most energy intensive stage of cement's life cycle – is on the rise, with an increase of 1.5% during the period 2015-2021[8], mainly due to a higher global clinker-to-cement ratio[9].

Despite its impact, **overall emission reductions of the EU cement industry are substantially lower than those realised in other energy intensive industries** in Europe. This should be no surprise: the system of self-regulation by standards at the core of the CPR is not delivering on decarbonisation. **Current cement standards are hugely prescriptive**, stipulating what cement types and compositions can be used in concrete and mortar products. As such, t**hey are preventing green innovations** by locking-in high clinker cement types. This has a detrimental effect on the entire construction value chain, preventing a major decarbonisation from happening.

After two decades of inaction, there is no time to miss a chance to regulate the environmental impacts of the most polluting construction product. To secure effective and timely action to curb the impacts of cement, we call on policy makers to:

> **Delete cement from the scope of the CPR and secure coverage by the ESPR**, which already regulates other high energy intensive intermediate products, and will work on an accelerated timeline, with a first implementation working plan expected for the end of 2022[10].

[6] 2021. McKinsey. Laying the foundation for a zero-carbon cement industry | McKinsey
[7] https://www.chathamhouse.org/2018/06/making-concrete-change-innovation-low-carbon-cement-and-concrete-0/executive-summary
[8] 2022. IEA. Cement – Analysis - IEA
[9] Clinker is the key ingredient of cement. Its production requires huge amounts of energy, as well as generates high levels of process emissions. Therefore, clinker substitution is a key lever for the decarbonisation of the cement industry, yet at present largely overlooked eco_efficient_cements.pdf (unep.org)
[10] 2022. European Commission. Ecodesign for Sustainable Products Regulation.

Step 2: No environmental provisions should be developed through the CPR's failing standardisation system

Unlike most internal market legislation, the use of harmonised standards under the CPR is **mandatory** if they are cited in the Official Journal of the EU (OJEU). Such harmonised standards, are used for compliance, meaning that products covered by such standards have the right to enter the European market, when they have been assessed to be in conformity with their declared performance and are, therefore, CE marked. These standards are developed by CEN, one of the European Standardisation Organisations, where its members – national standardisation bodies – are almost entirely represented by industry delegations[11]. This means that, **since it has existed, construction legislation has given the pen to the industry to write their own obligations**. Despite the clear privilege, confirmed under the last revision, the performance of this system has been catastrophic: since 2014, **no standards developed in support of environmental objectives and 400+ standards not compliant with the existing CPR or rejected for citation in the OJEU**[12].

Data collected over the period 2014-2019 indicate that:

- at present, **out of the existing 444 harmonised standards, only 12 can be deemed up to date and therefore in compliance with the current CPR (revised 11 years ago)**[13]
- In the period 2018-2019, **a 100% lack of compliance over 110 standards produced by technical committees working on construction**[14].

The non-compliance rate is, on average, 40% higher than in other sectors and **mainly due to the quality** of the standards produced by standardisers[15]. **The result has been regulatory confusion at Member State level:** the incomplete character of harmonisation, in particular the absence of references to sustainability, has led several Member States to introduce additional requirements, which have been deemed not in line with the CPR as a result of several CJEU rulings[16].

Nonetheless, the new CPR replicates the existing system in full, adding only very limited changes to its current governance. One of these changes is a fall-back option under which the Commission is entitled to develop delegated acts in case of system failure, including delays. Yet, the elements that would trigger intervention by the Commission are too vague, entailing a high risk of never seeing the Commission taking action under this provision.

With more than 400 standards to bring in line with the new CPR and more to be developed out of the extension of essential characteristics, there is no more time to waste.

[11] 2015. ECOS. The-future-of-European-standardisation.
[12] 2018. VVA Economics et al., Study in support of the CPR Evaluation (p.29)
[13] *idem*
[14] 2019. European Commission. Training for standardisers on CPR compliance.
[15] idem
[16] Case C-100/13: Judgment of the Court (Tenth Chamber) of 16 October 2014 — European Commission v Federal Republic of Germany - Publications Office of the EU (europa.eu)

To ensure the appropriate contribution of the construction sector to the EU climate objectives, **we call on policy makers to:**

- **develop all provisions pertaining to the sustainability of construction works** (sustainable use of natural resources, hazardous emissions to the outdoor environment, new mandatory essential characteristics related to climate change[17]) **through Commission's legal acts.** This can be done by excluding sustainability provisions from the scope of standardisation activities, under art.4 of the new CPR;
- **clarifies triggers for Commission's intervention through delegated acts in case of failure of the standardisation system,** notably by defining appropriate deadlines and cases of non-compliance. Considering the current situation and the problems identified, the non-compliance of the standards triggering a rejection from publication in the official journal should immediately qualify for Commission's intervention through a delegated act.

Step 3: Effective product performance requirements to ensure sustainable construction products

Ecodesign is a proven tool to save resources while reducing embodied GHG emissions in products. Currently applying to more than 20 energy-related products and expanding beyond energy efficiency under the forthcoming Ecodesign for Sustainable Products Regulation, **the EU ecodesign rules have helped avoid 150 Mtoe CO2 emissions**[18] every year in the EU, as much as the whole primary energy consumption of Italy.

Once efficiently set and regularly updated, **ecodesign requirements allow to** gradually **exclude the least performing products** from the market. Considering the wide impacts of construction, performance requirements can push the construction market upwards, securing a first wave of greening construction products' supply according to a variety of environmental parameters. To correctly set performance requirements, any product-specific benchmark must be ambitious enough and regularly updated every 5 years, to reflect market innovation.

The new CPR empowers the Commission to develop such requirements[19], yet fails in making the relevant provisions clear and readily implementable. This is particularly crucial as products requirements are not directly implementable, but they will be pending on manufacturers only following product-specific delegated acts. To avoid delays and secure appropriate regulation for construction products' impacts, policy makers should:

- recognise the urgency of climate action, **by establishing a clear timeline for the development of sustainability provisions in relation to construction works for key product groups**. This shall be done by establishing a working plan **starting from 2024** tackling most significant product groups in terms of environmental impacts, namely structural products (concrete and steel) as well as products on which the Renovation wave will have a significant impact in terms of turnover (insulation products, doors and windows,..). **It is essential that products requirements and their benchmark do not level up to a simple market average** (i.e. following

[17] Annex I Part A, point 1.7, 1.8, point 2
[18] 2022. ECOS. Ecodesign as a tool for environmental change, available at: ECOS (ecostandard.org)
[19] Art.5 new CPR

the definition of "state of the art"[20]), which would entail no significant movement upwards in terms of performance. Instead, **they should be ambitious enough, regularly updated and measured in relation to our climate commitments towards 2050.**

- **ensure all ecodesign requirements, including product-specific definitions, are developed through appropriate delegated acts**. All unclear language referring to standards (notably in Annex I Part B (2)) should be deleted.

Step 4: Extend the list of mandatory information requirements and ensure appropriate communication through labelling

Mandatory provision of data and information requirements are the very core of effective environmental regulation. This serves two objectives: (1) claims are properly substantiated and (2) information is used to make informed choices, including supporting policy making. In a complex business-to-business (B2B) value chain such as in the case of construction, information disclosure, notably on products' features, circularity and environmental performance, is essential for downstream users for making informed decisions. For instance, information over the material and chemical content of a construction products are essential for recyclers or reuse operators, when making decisions over the end of life of a certain product. For this reason, **the principle "no data, no market" must prevail**, meaning that no product can access the market lacking relevant environmental information.

At present, the new CPR does not provide a sufficient list of information requirements, including only **very limited information requirements related to environmental performance, in the form of recommendations** on circularity (i.e. recommendations on repair, reuse, recycling). In order to align with the ESPR and to provide a comprehensive set of information covering the product and its packaging, **the CPR must require information covering full material and chemical content**, carbon and environmental footprint, resource efficiency, recycled content, information on reusability, dismantling (including assembly schemes where relevant), repair, remanufacturing and recycling.

Considering the wider range required, it is essential that information is disclosed by manufacturers through a single instrument, which reconciliates the two Declarations (Performance and Conformity). **DPPs are valuable tools for enabling quick and convenient access to and sharing of product-related information all along the product value chain**. Instruments such as the DPP also facilitate effective and low-cost market surveillance, a key objective pursued by the CPR revision. On the other end, the EU database proposed by the new CPR is an outdated instrument to collect data which will not allow data to be passed down the construction value chain.

To fill the current information gap and enhance transparency in the construction value chain, information requirements:

- **must follow the principle "no data, no market"**. This principle can be implemented in the CPR by **requiring manufacturers to report disclosed information in the Declaration of**

[20] as currently laid out in art. 22.

Conformity, one of the two documents (together with the Declaration of Performance) required to access the EU market.

- **must mirror all relevant product requirements, covering essential environmental indicators** – from carbon and environmental footprint to chemical content and circularity.
- on the wave of industry commitments on digitalisation, **must ultimately be provided in the form of a digital product passport for construction (DPP)**.

Beyond requirements alone, **comprehensible and intelligible communication of environmental information through products' labelling is crucial,** to enable easy comparison of products and pull-in best performers. At present, the new CPR provides the ground for the development of a traffic light labelling system. As mostly marketed in a B2B context where end users are trained professionals, labelling of construction products should strike the balance between communicating easy to read information while providing more detailed information on products' performance. Therefore, **it will be essential to change the traffic light system for performance classes and give access to detailed information from the DPP via a system such as QR code on labelling**.

For the very top performing products (top 10% performing), **eco-labels have been an efficient tool in supporting end users' choices towards environmental excellence**. Ecolabels are voluntary, multi-criteria labels which certify products with low-environmental impact throughout their entire lifecycle, encouraging companies to develop innovative products that can meet ambitious requirements[21]. A few important ecolabels covering construction products exist at EU (the EU Ecolabel) and national level (the Blue Angel in Germany or the Nordic Swan in the Nordic countries), which are generally recognised by contractors[22] and are considered an efficient complementary tool to legal requirements. **Despite the positive impact of these labels, the new CPR bans their use**, rolling back on a system that has supported sustainability in the construction sector for the past 30 years.

For these reasons, **we call on policy makers to**:

Change the traffic light system for performance classes and give access to detailed information from the DPP via a system such as QR code on labelling.

Ensure Ecolabels, including officially recognised national ecolabels, are allowed for use under the new CPR. To do so, art.18 must be amended as to exclude ecolabels from the general ban on "other markings".

[21] 2022. European Commission. EU Ecolabel.Available at EU Ecolabel - Home (europa.eu)
[22] 90% of actors in the German construction value chain are aware of the meaning of the Ecolabel

Step 5: Mandate use of a solid environmental assessment methodology – the Product Environmental Footprint

A solid assessment of the environmental performance of construction products, all along their lifecycle, is at the core of ensuring that (1) environmental impacts of construction products are properly accounted for and that (2) there is fair competition between manufacturers. Both these elements are essential pillars of a transparent single market for sustainable products which prevents greenwashing.

Producing reliable information on products' environmental impacts will be essential as product-level data will be the basis for calculating the whole life carbon of buildings, a requirement soon introduced by the EPBD. The risk is therefore clear: getting it wrong at product level could endanger our efforts to decarbonise the EU's building stock.

These considerations are especially relevant as to date industry relies mostly on the Environmental Product Declaration (EPDs), a voluntary tool developed in the context of a standard (EN 15804). Yet, **EPDs present significant shortcomings**: an opaque and fragmented framework, with varying interpretation across EPD schemes in different Member states, lacking mandatory data quality requirements. As a result, **this framework is not suitable for the comparison of the environmental footprint of different products.**

A prompt solution already exists and will underpin environmental assessment under the ESPR: the **Product Environmental Footprint methodology** (PEF). PEF has superior qualities in comparison to the EPD approach, notably in terms of robust data and information quality requirements, enhancing completeness, constancy and ensuring fair competition between manufacturers.

Therefore, we call on policy makers to:

> **Ensure direct application of PEF as the go-to methodology to assess the environmental performance of construction products**.
>
> Set a priority timeline, starting from the adoption of the final text, for the development of construction-specific rules for PEF.

Step 6: Public authorities must start buying green construction products

Public authorities across Europe are major procurers of construction products, with **public spending on construction representing 1,4% of EU's GDP**. By means of procuring only top performing products from an environmental perspective, public procurers can reward and foster the currently lagging demand for sustainable products.

Despite gaining significant traction, up until now, **no mandatory green public procurement approach to construction exists at EU level**, with fragmented and largely voluntary policies implemented at national level. As a result, its potential to drive decarbonization goes largely unexploited, with growing investments in public infrastructure adding up to 688 billion euro a year[23] which could be redirected towards greening construction and contributing to the 2030 climate targets we risk undershooting.

As a push from the European Green Deal[24] and the ESPR, the CPR now foresees the possibility to develop mandatory procurement criteria applicable to public contracts. Going forward into discussions on the new CPR, policy makers must ensure that:

- **the approach to Green Public Procurement remains mandatory and applicable to all construction projects across Europe**.
- **only truly green (best performing) products are procured**, corresponding to the top two classes in terms of environmental performance and that these classes are regularly updated and reflect innovation in the market.
- **a timeline for the development of delegated acts defining GPP criteria for the different types of construction product is included in the CPR, starting 2025**. Considering where the largest environmental benefits can be achieved, GPP should target major products such as structural products (concrete and steel) and products with an expected high turnover due to the ongoing Renovation wave (insultation products, doors and windows).

[23] Investment in infrastructure in the EU (europa.eu)
[24] 2019. Communication on the European Green Deal (p.8)