CEMBUREAU
The European Cement Association

POSITION PAPER

April 2020

CARBON BORDER MECHANISMS

ENABLING THE INDUSTRY TO DELIVER CARBON NEUTRALITY INVESTMENTS

EXECUTIVE SUMMARY

- ✓ CEMBUREAU, the European Cement Association, welcomes the idea of a carbon border mechanism as a key opportunity to enable the industry to help deliver the EU's carbon neutrality objectives, and drive deeper CO_2 emissions' cut in the EU and beyond.
- ✓ The European cement industry already faces a strong risk of carbon leakage despite the partial free allocation provided under the EU Emission Trading Scheme (ETS). This risk is increasing at a very fast pace, as third countries which are not subject to the same CO_2 constraints build up their export capacity to the EU.
- ✓ A carbon border mechanism could create the level playing field the industry needs to deliver low-carbon investments and move towards carbon neutrality along the value chain. It could also incentivise third countries to step up their efforts on climate change and ensure that the EU does not "outsource" its CO_2 emissions through the import of more CO_2-intensive products.
- ✓ However, carbon border mechanisms are by nature complex tools and it is essential to get their design right. A poorly-designed mechanism could indeed have significant consequences for the industry.
- ✓ In particular, it is imperative that any carbon border mechanism co-exists with free allocation under the EU ETS, at least until the end of Phase IV. The replacement of the existing carbon leakage measures by an untested mechanism would create considerable uncertainty and risks for investments in the EU, at a time the industry needs a predictable framework to deliver low-carbon investments.
- ✓ The core objective of a carbon border mechanism should be that producers outside the EU compete on the same CO_2 cost basis as EU domestic producers. With this in mind, CEMBUREAU suggests some design principles which (1) are fair and transparent for both EU and non-EU producers, (2) will have a positive impact on climate worldwide, and (3) will avoid carbon leakage and imported CO_2 emissions.

1. Introduction - the cement industry is a critical partner to achieve the EU's carbon neutrality objectives

CEMBUREAU is determined to contribute strongly to the EU's vision for a carbon neutral society by 2050 and support the objectives of the European Green Deal.

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The cement industry is a key enabler to a carbon neutral society through its end-product, concrete, that is the material of choice for building the renewable energy assets (including wind turbines and hydro-electric dams), and the sustainable buildings and infrastructure of tomorrow. The cement industry is local (from raw material to end-product), present all across the EU territory, and plays an important role for both the EU social cohesion and the wider economy.

With 15% CO_2 emission reductions achieved in cement manufacturing since 1990, the cement industry is on track to achieve its 80% emission reduction target by 2050, through the use of conventional technologies and the successful deployment of carbon capture and storage/use[1]. CEMBUREAU is currently in the process of re-assessing these targets with a view to setting out the cement and concrete's industry's pathway to achieve carbon neutrality along the value chain in Europe by 2050[2].

Already today, the European cement industry deploys a wide range of technologies and innovation projects at every step of the cement production process. These include the development of alternative fuels to replace fossil fuels in heating processes[3], improved energy efficiency of kilns, low-clinker cements, innovative binders, innovative concrete solutions, up to the development of carbon capture and storage/use technologies where the industry is leading the way through several pilot programmes in Europe.

The cement sector's efforts to reduce its environmental footprint and support a carbon neutral economy are further explained on our Low-carbon economy website.

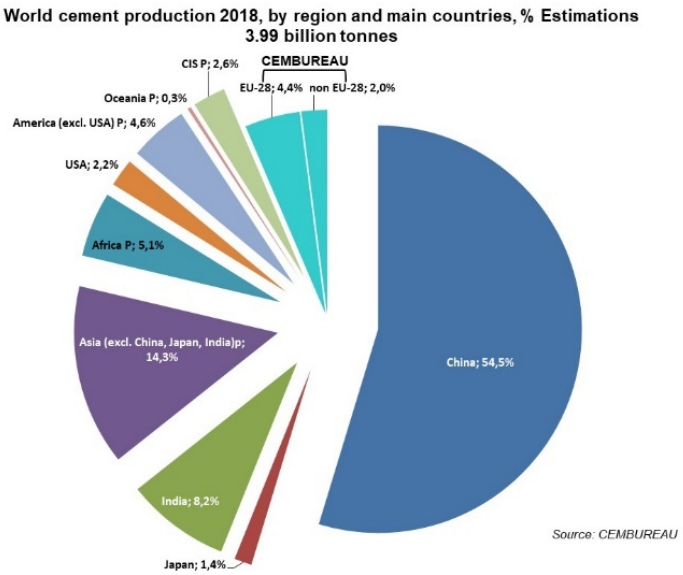
2. The international environment – cement has a high exposure to carbon leakage

In 2018, the cement production of the current 28 Member States of the EU was of 179.8 million tonnes, about 4.4% of the total world production (3.99 billion tonnes). There are over 200 installations in the EU, and the cement industry directly employs over 35,000 persons in the EU.

[1] *Please see The role of CEMENT in the low carbon economy, CEMBUREAU*

[2] Please see press release *European cement industry strives for carbon neutral cement and concrete along the value chain by 2050*.

[3] *The European cement sector is a global leader in the use of alternative fuels to replace fossil fuels which now account for 46% of the total energy mix. The alternative fuels are drawn from a variety of non-recyclable waste streams which puts the cement industry at the heart of the circular economy and makes it a major actor in the waste management policies at EU and national level.*



Despite partial free allocation under the EU ETS, the European cement industry faces high risks of carbon leakage, which needs to be addressed urgently

Cement is traded on European and world markets either as final product or as clinker. Clinker is the CO_2-intensive part of cement. It is formed through the calcination of limestone into lime, and then through a reaction with the other constituents of the raw materials at temperatures of 1450° C (including e.g. clay, shale) to form clinker.

Already today, the European cement industry faces a significant risk of carbon leakage, both at the EU's land borders and ports through the low price of long-distance shipping and waterway transport, which potentially allows large imports of cement or – much more often - clinker from countries not covered by the EU ETS (or by systems with equivalent rigour). This risk of carbon leakage has been partly recognised by EU policymakers in the EU ETS scheme through the free allowances mechanism, which is designed to provide a degree of protection to the European industry.

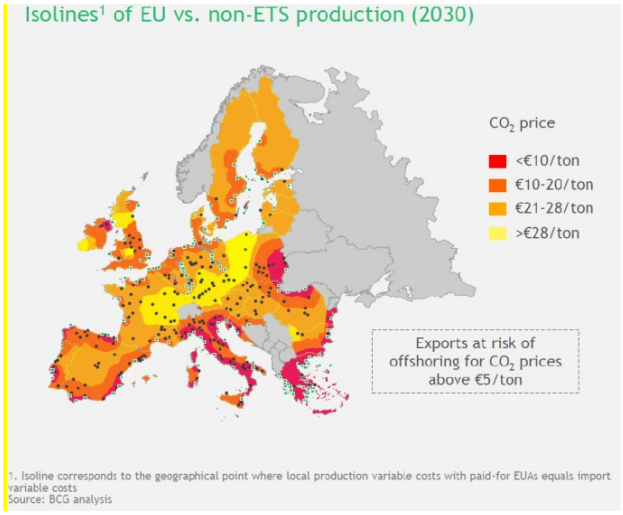
Studies led by market analysts and external consultants show that, despite free allocation, the European industry is at a high-risk of carbon leakage.

The rules for the calculation of free allocation have indeed been reviewed for the phase IV of the EU ETS (2021-2030), with a reduction of both the Historical Activity Level (HAL) and the emission factor benchmark. As a result, it is expected that, as early as 2021, free allocation will be insufficient to meet EU demand for clinker and normal export activity, resulting in a free allocation shortage. The shortage of free allowances will translate into increased production costs for clinker production. At a CO_2 price of €28/tonne, each marginal tonne of clinker produced in the EU above the level of free allowances will increase its production cost on average by €23/tonne of clinker during the period 2021-30.

As a consequence of these increased production costs, clinker produced in non-ETS countries will become increasingly competitive, if these countries do not incur the same level of CO_2 costs. In this context, producing locally in the EU (and paying the CO_2 related cost) will be less competitive than importing from non-ETS offshore locations (with the additional cost of

transporting the product to the EU). The impact will be felt across Europe. It will be particularly strong in regions which are more exposed to clinker and cement trade, due to their location at the EU's land borders, or their proximity to key sea shipping routes (please see map below).

For CO_2 prices of €28/tonne, in line with Commission expectations, the expectation is that Phase IV will lead to a risk of offshoring 40 million tonnes of EU clinker production by 2030 (equivalent to >20% of EU demand). For CO_2 prices of €72/tonne, 58 million tonnes of EU clinker production will be at risk of offshoring by 2030. As a consequence of production offshoring, emissions will not decrease at a global level, but rather be displaced and increased due to the additional direct and indirect emissions, as well as increased transport emissions. Such offshoring would also have significant social and economic impacts.



Competition is sharply increasing at the EU's doorstep

This risk of carbon leakage is further heightened by recent trends observed in the EU's neighbouring markets:

- Installed capacity is rising at the EU's doorstep: the build-up of 70 million tonnes of integrated new capacity is taking place between 2018 and 2025 in countries surrounding the EU. Surplus capacity in those countries - which can vary significantly based on rapid changes in local demand due to political or economic turmoil – is likely to rise in the next years, which will lead to increased exports into the EU28.
- These countries do not face the same constraints on carbon emissions as European cement producers, increasing the threat to the competitiveness of the European cement industry.
- In combination with such increased capacity, there is a sharp drop in cement demand in Middle-East/Northern Africa (-10% in Algeria and -5% in Libya and Egypt). This will heighten the risk of exports to the EU.
- Furthermore, several land corridors with China are currently being developed through the Belt and Road initiative. One of the corridors is China-Eurasia, the goal of which is to accelerate railway trade between China and Europe via Brest-Litovsk (Poland/Belarus border). This effort to connect with markets such as Turkey and Belarus are seen as a prelude to a phase in which China will begin acquiring assets in Europe.

- Last but not least, the last few months have witnessed the development of modular grinding plants in the EU, allowing clinker to be imported from outside the EU and grinding to cement taking place in the EU.

In conclusion, the European cement industry already faces a risk of carbon leakage, despite the partial free allocation of allowances under the ETS. In the absence of a level playing field, it is likely that the EU industry will continue to be at a competitive disadvantage, resulting in increased market shares of less CO_2-efficient cements and risks of factory closures, with consequent social implications, across the EU. This competitive disadvantage will further increase as the EU implements ambitious CO_2 reduction policies as part of the European Green Deal, unless similarly ambitious policies are set up by third countries.

3. An EU Carbon border mechanism could play a decisive role in building a level playing field on carbon emissions

CEMBUREAU considers that an EU carbon border mechanism can play a decisive role towards both domestic and international action on climate change:

- A well-designed mechanism would allow the creation of a level playing field between the European cement industry and third countries producers', ensuring that they pay the same carbon price to place products on the EU market and that they compete on the same carbon price base when placing products internationally. It should thereby prevent carbon leakage, and ensure the European industry competes on an equal footing with third country producers when delivering investments to reach carbon neutrality;
- An EU carbon border mechanism could support the EU's efforts to foster climate ambitions in third countries and thereby lead to deeper carbon emission reductions worldwide. Third country producers will be incentivised to reduce their carbon emissions; and third country governments will be encouraged to set up domestic carbon pricing schemes with equivalent vigour to the EU system;
- In designing a carbon border adjustment and reaching out to third countries to address their programs for emission reductions, appropriate attention needs to be paid to already existing agreements or arrangements with these third countries such as a customs union, a linking arrangement, a trade or association agreement. If some third countries already have certified bodies in place, recognised by the EU, that can assess the emissions levels of plants in third countries, this can be a facilitating factor in the application of the mechanism.
- A carbon border mechanism would also offer a long-term signal to investors across the EU, thereby supporting the upscaling of low-carbon technologies;
- Last but not least, revenues generated by the carbon border adjustment could also be used to foster research and deployment of low-carbon technologies in Europe.

However, these expected benefits will largely depend on the design of such carbon border mechanism.

4. Carbon border mechanism: design principles

CEMBUREAU understands that the cement industry is considered as potential 'pilot' sector for carbon border mechanisms. **As outlined above, we consider that carbon border mechanisms can play a key role towards decarbonisation; however, getting their design right is paramount. With this this in mind, CEMBUREAU has developed five key design principles for such instrument.**

Ultimately, CEMBUREAU considers that the objective of any mechanism is that **it should result in EU producers and third country importers paying the exact same price for the carbon emissions they emit.**

Principle 1: In an initial phase, an EU carbon border mechanism must be complementary to the EU ETS free allowances

In an initial phase corresponding to phase IV of the EU ETS (2021-2030), CEMBUREAU considers that the instrument should take the form of a carbon adjustment mechanism, and be complementary to the EU ETS. An adjustment charge should be applied to third country imports to ensure that importers face the same carbon price than EU producers under the ETS. This adjustment charge should be fair and take into account the free allowances received by the European industry.

As explained above, energy-intensive industries such as cement already face a shortfall of allowances under the ETS rules, increasing the production cost and the risk of production being offshored. In this context, the introduction of a cross border mechanism combined with an immediate loss of free allowances would create considerable uncertainty and risks.

Besides, having a carbon border mechanism set up while maintaining free allowances for EU producers during an initial phase provides distinct advantages:

- It would provide a stable framework for low-carbon investments to happen. The industry has taken the current EU ETS Directive (adopted in 2018) as a basis for long-term investment decisions, including for investments needed to decarbonise the sector in the coming years. This legal certainty would again be put into question by the introduction of a cross border mechanism which would, for EU producers, impact the free allowances system, before the expiry of EU ETS Phase IV;
- It allows the level of free allowances received by EU producers to be taken into account in the setting of the adjustment paid by importers; thereby starting with a smaller amount. This is ideal for a testing phase, given the many uncertainties surrounding the implementation of a carbon border mechanism (WTO compatibility, trade retaliations…);
- It minimises distortions of competition between different sectors which are covered by the EU ETS.

Furthermore, it is important to underline that the existing system of free allowances was adopted in order to address one specific type of carbon leakage, namely the offshoring of a number of sensitive industries from the EU to countries with less stringent carbon costs. Addressing emissions in imports, which is also essential to prevent carbon leakage, is not tackled by the current ETS carbon leakage measures. This is why the two carbon leakage

policies – ETS designed with free allowances on the one hand, and a carbon border adjustment to reduce third countries' emissions on the other hand – should be viewed as separate and evolve independently of each other, as opposed to being seen as "alternatives" to each other.

CEMBUREAU believes it is perfectly possible to design a mechanism that takes into account the free allowances received by the European industry to determine a fair adjustment charge for importers. The adjustment paid by importers would simply be reduced to take into account free allocation, including the fact that free allocation would reduce over time (e.g. through a cross-sectoral reduction factor or to meet the new 2030 target).

Principle 2: A carbon border mechanism must be based on verified emissions from importers to the EU, not 'average emissions'. It should include indirect emissions.

For any mechanism to be successful and fair, it is important that it is based on actual and verified emissions. This is particularly crucial in the case of cement, where various types of cement with different carbon intensity can be produced.

Third country producers' emissions could be determined in a two-step mechanism:

- Third country producers would use an EU-accredited certification body to determine the CO_2 content of their product;
- If a third country producer fails to produce such certified document, the CO_2 content of their product would be based on a corrected average CO_2 emission value for the clinker/cement produced in the exporting country, for instance taking the worst 20^{th} percentile. This would incentivise third country producers to be transparent on their emissions. Recognition would be made for third country CO_2 emissions schemes and these would be factored in when determining the CO_2 charge for imports from the third country.

In addition, the adjustment mechanism should also include costs associated with indirect emissions. The European cement industry is indeed exposed to significant indirect costs, which are foreseen to rise in the future (e.g. following the electrification of production processes and introduction of CCS). It is therefore fair that importers face the same costs.

Principle 3: A carbon border mechanism must follow a very transparent methodology and be fully WTO-compatible

To create a predictable framework for low-carbon investments (new technologies, equipment and infrastructures), it is essential to have sufficient guarantees that the mechanism would not be retracted at an unexpected moment, for instance following a WTO ruling.

There is abundant literature available on the issue of carbon border mechanisms, which seems to indicate that it is perfectly possible to design a WTO-compatible instrument. As explained above, it is however important to keep free allowances during an initial phase, to ensure that the industry is not left unprotected should legal (or political) disputes arise.

In assessing WTO compatibility, specific attention needs to be paid to respecting the non-discrimination rule which is most likely to be respected when a "mirror-image" system to the EU ETS is designed for third country producers. In such case, however, it is important to determine from which source third country importers would buy allowances, i.e. from the EU ETS allowances volume or, as suggested in the discussions with the French Government, from a virtual volume of allowances.

CEMBUREAU would also encourage the EU to discuss the design of a mechanism that would encourage third countries to adopt similar carbon reduction measures as to those applied to European producers. For such an approach, a recourse to the environment exception provided for under Article XX GATT may be required.

Principle 4: An EU carbon border mechanism must be applicable to all sectors alike

We understand that the cement sector is considered as a potential 'pilot sector' for carbon border mechanisms. We think it is however important that as many sectors as possible are included – the principle should be that the carbon border mechanism will be applicable in the widest sense and should not seek to differentiate between sectors.

If a mechanism is limited to only a few sectors or sub-sectors, it will inevitably create distortions of competition on the EU internal market. These market distortions would have a significant impact on downstream markets such as the construction sector. We therefore believe that a carbon border mechanism should apply to all the sectors covered by the EU ETS.

Principle 5: A carbon border mechanism should provide for an CO_2 charge exemption for EU exporters

Finally, a carbon border mechanism should provide for a CO_2 charge exemption for EU exporters to third countries, if the third country in question is not covered by a carbon pricing mechanism.

As the climate ambition of the EU increases, leading to an overall increase of CO_2 costs, European cement plants will face increasing competitive disadvantage in relation to producers in third countries. This will result in lower access to export markets for the European industry, with a negative impact on global CO_2 performance.

The carbon border mechanism should therefore include a CO_2 charge exemption for exports of EU plants. This would act as a further incentive to ensure third countries set up carbon pricing schemes, with an international Monitoring, Reporting and Verification (MRV) in place. Such export rebate can be designed as compatible with WTO rules under the so-called destination principle which requires that operators exporting to a third country should be treated the same way as the domestic operators in that country.

In the long-term, other forms of mechanisms could be envisaged

The above principles focus on the creation of a carbon border adjustment mechanism running in parallel to the EU ETS in the coming years. We believe that such model would be the most practical and realistic, at least until the end of phase IV of the EU ETS in 2030.

However, after this date, different forms of carbon border mechanisms could be envisaged. The mechanism could continue to run in parallel to the EU ETS, as described above. Alternatively, the creation of a CO_2 consumption charge applied indistinctly to EU and non-EU products could also be envisaged. Such form of mechanism would present opportunities, but also has complex ramifications and impacts which should be analysed. CEMBUREAU stands ready to support this work in due course.

*The **European Cement Association** based in Brussels is the representative organisation of the cement industry in Europe. Currently, its Full Members are the national cement industry associations and cement companies of the European Union (except for Malta and Slovakia) plus the UK, Norway, Switzerland and Turkey. Croatia and Serbia are Associate Members of CEMBUREAU. A cooperation agreement has been concluded with Vassiliko Cement in Cyprus.*

The Association acts as spokesperson for the cement industry before the EU institutions and other public authorities, and communicates the industry's views on all issues and policy developments regarding technical, environmental, energy, employee health and safety and sustainability issues. In addition to the EU, permanent dialogue is maintained with other international organisations (e.g. OECD, IEA), the Cement Sustainability Initiative (CSI) and sister associations in other parts of the world.

The cement sector's efforts to reduce its environmental footprint and support a carbon neutral economy are further explained on our Low-carbon economy website.

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Appendix – statistics on cement production and trade

PRODUCTION OF CEMENT IN THE EU28 (Mt)

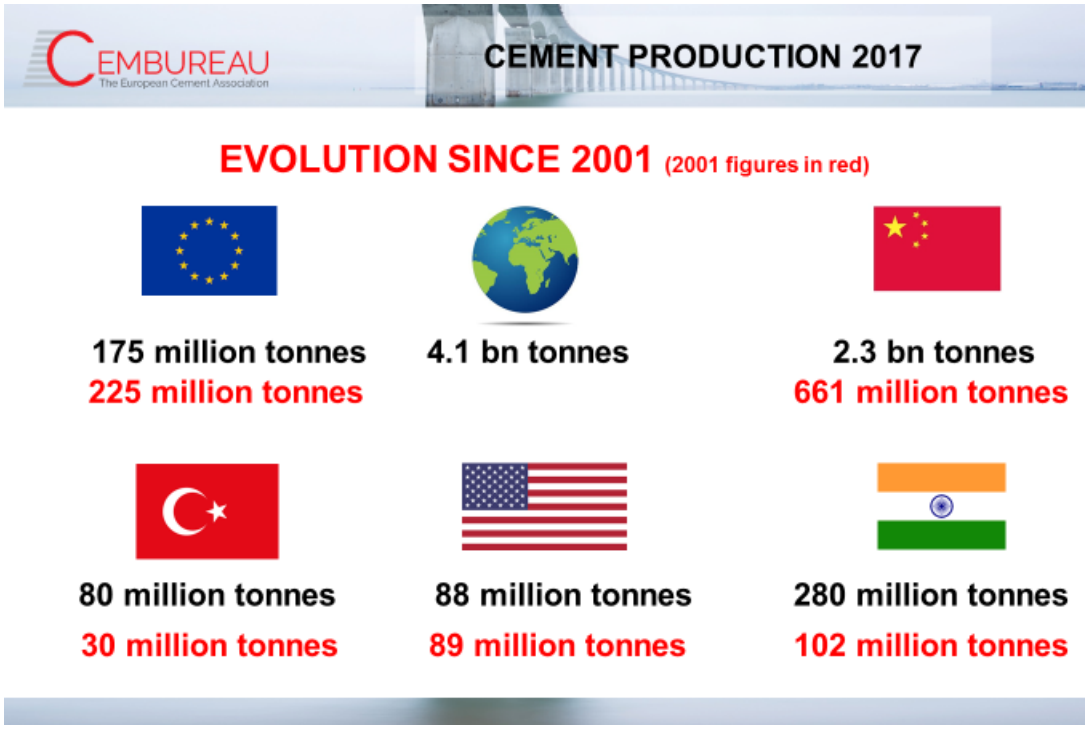
EU 28 Production 2007 and 2013-2018 (showing drop in production during crisis period (2007-2013)

2007	2013	2014	2015	2016	2017	2018
274	165	166	167	169	175	180

CONSUMPTION OF CEMENT IN THE EU 28 (Mt)

2007	2013	2014	2015	2016	2017	2018
267	152	151	152	154	159	167

EVOLUTION CEMENT PRODUCTION 2001-2017



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