Cem'In'Eu
Cement Innovation in Europe

Cem'In'Eu comments on the inception impact assessment of a carbon border adjustment mechanism

Cem'In'Eu supports the long-term objective of climate neutrality in the EU and its Member States by 2050. The EU's 2030 climate target should be in line with the objectives of the Paris agreement. In this perspective, we welcome the development of an **effective carbon border adjustment as a tool for the transition to carbon neutrality**. We appreciate the opportunity to provide comment on the design of a *Carbon Border Adjustment Mechanism* and thus participate in the building of a successful measure to **foster innovation in the cement industry**, as cement is responsible for 5% of global CO_2 emissions.

Executive summary

Cem'In'Eu would be pleased to share its expertise with the European Commission and thrive the positive outcomes that such a mechanism could bring. In our view, the carbon adjustment mechanism should:
- Be designed on the basis of the EU ETS, to apply same constraints to both EU and external players.

- Be compliant with WTO rules and thus ensure a level playing field among importers and EU industries and so replace the system of free CO2 allowances handed to energy-intensive industries under the EU ETS.

Who we are ?

Industrial start-up, Cem'In'Eu developed a new concept for the production and sale of cement in Europe. Our approach to the market is based on the principle of « small is beautiful» with small, compact and standardised production units located as close as possible to regional economic areas. Following the opening of its first milling plant Aliénor Ciments in Tonneins, South West of France in July 2018, Cem'In'Eu foresees the setting-up of 4 new sites in France and 2 in Europe.
Cem'In'Eu built a completely new and fully optimised business model to reduce the environmental impact of each activity along the entire value chain (see the concrete example at the end of the document). Carbone4 (http://www.carbone4.com/) calculated the carbon footprint of our company and of our products. **In one year, we decrease our carbon footprint by 25% thanks to the optimisation of all levers** (Clinker selection, logistics, cement recipes and packaging).

We are convinced that the new carbon border adjustment mechanism would be a powerful tool to thrive for greener products.

Cem'In'Eu's contribution

To contribute to the in-depth analysis Cem'In'Eu presents the following elements for consideration:

- The EU should continue to work with global partners in applying **ambitious carbon pricing**, that will drive changes. It is thus crucial to ensure that the future mechanism will **comply with World Trade Organization rules**. This requires a thorough analysis of the legal and practical feasibility of introducing such a mechanism. Importers and European actors must be treated equally in order to avoid any distortion of competition or unfair protection for old and polluting European cement industries.

- This mechanism is particularly relevant for the construction sector with the renovation wave announced by the Green Deal. Indeed, cement is the essential binder for the manufacture of concrete, which is involved in more than 80% of constructions. All initiatives must be carried out in a comprehensive approach to foster innovation and move from a *status quo* that was misused by cement industries for years. The EU should set the carbon border adjustment mechanism in a way that will **incentivize investments made to innovate for low carbon solutions**.
  Cem'In'Eu sees this mechanism as a way to **massively scale up the cement industry's contributions to the carbon neutral transition**, by incentivizing the most efficient ways to lower emissions thanks to:
  a. innovation that improves the energy performance of installations
  b. a complete shake up of the supply chain taking into account the whole industrial process (upstream and downstream)

As a consequence we recommend that a CBAM should be introduce following the necessary prerequisites and design elements:

1. The commission has to ensure that the **CBAM and the suppression of free allowance are introduced simultaneously.** Cem'In'Eu fully supports the idea of CBAM designed as an external transposition of the EU ETS with a cornerstone tool to safeguard the level playing field : stop to deliver free allowances for both producers and importer. The Carbon Border Adjustment mechanism would prevent innovation if it acts like a **protectionist duty** and would be consider as **subsidies under WTO rules**. This solution is the only way to bring drastic changes, by incentivizing cement producers to reduce in a sustainable way the clinker ratio in the cement production.
2. The carbon border adjustment mechanism should **avoid complexity in design and administration**, the alignment of cost on the carbon price would simplify the CBAM launch. It would allow to **implement the same carbon price to the external producers as the one fixed by the EU ETS within the EU** and would be a compliant tool with the WTO rules. To avoid the high price volatility of the European carbon price, no free allowances has to be delivered as it is an important factor of price volatility.
3. **The carbon content per ton at the EU border will be set by the EU**, using ETS calculation and data collection methodology to measure the carbon intensity of EU imports. If and external producer (importer) consider to have a more virtuous supply chain (clinker production or cement production and transport) he should have the choice of using this reference for its imports, and pay the duty on it, or could choose **to declare its actual emissions with an external audit of the figures declared**. Regarding carbon content calculation one last point is important is the fact that EU emission factors as to include **indirect emissions** such as the emissions caused by the thermal energy used for the calcination of the clinker.
4. We believe that a CBAM must first covered few "pilot" sectors to test the implementation of a such mechanism, this pilot phase would allow the EU to test and simplify the tool and ensure a successful launch. We believe that **the cement industry should be one of the targeted pilot sectors** indeed the cement industry is one of the most carbon-intensive industry, it is also an industry which failed to reduced its emissions during the last phase of ETS (ETS III). Finally, cement as the advantage to have a relatively simple value chain and so a well-identified carbon content following the "*GNR - Get the number right*" initiative.
5. Finally it is important that the CBAM includes also the EU exporters. The commission should consider a specific compensation for the EU exporters outside the EU. The volume is rather small regarding the EU production, but is concentrated on a few number of countries (Greece and Portugal), and mainly from independent producers, the simplest method to maintain their competitiveness and to avoid carbon leakage will be to give free allowance only for clinker or cement exported outside the EU.

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Cem'In'Eu is convinced that the carbon border adjustment mechanism in the EU is the right tool to foster innovation in the cement industry. It could create a momentum for a behavioural change that was missing in the cement industry for years.

What can be done to reduce now CO2 emissions?

Cem'In'Eu developed a new conception of the cement industry to effectively reduce the carbon footprint of the product. We act on different elements to leverage our action:

• **Clinker selection**: Our clinker producer operates with a new plant from 2015 whereas the last kiln built in France for example was in 1978. On average only 51% of the European producer used the most advanced technologies being dry process with preaheater and precalciner (https://gccassociation.org/gnr/). We know that modern plants use up to 40% less fuels than old "wet" process (https://gccassociation.org/gnr/). We also choose our clinker producer for logistics reason. The plant is based on a port, this avoids additional upstream logistics CO_2 emissions.

• **Supply Chain optimization**: We import our clinker by big vessels from Turkey to the port of Sète. The plant is located on the main Toulouse-Bordeaux railway line with existing branches leading to vacant sidings, one of which is exclusively for use by Aliénor Ciments. Clinker arrives at the site by train from Sète. To support its clinker logistics, Cem'In'Eu built a 60,000t clinker storage yard at the port of Sète, Cem'In'Log, allowing clinker to be transported directly to the plant by rail, the most efficient means of transport in terms of CO_2 per t/km.

We use a unique process, a bespoke container-based transport system, thus the clinker can be moved without any dust. Upon arrival each container is lifted individually by an automated overhead crane and loaded into the discharging position at an angle over the discharge bin, enabling a full train of 26 cars, loaded with 52 containers of 32 t of clinker each, allowing 1.680 t to be unloaded and reloaded in less than five hours. Every single journey of this train, with almost no CO_2 per t/km, avoids 60 truck on the road and the huge CO_2 emissions linked.

- By stopping the use of trucks to transport clinker from the port to plant, we reduced our CO_2 emissions by -10 kg of CO_2/tonne of equivalent cement (calculation based on the Carbone 4 audit method)
- Thanks to an optimized supply chain, our upstream logistics emissions are equivalent to our downstream logistics emissions. The vessels emissions between Turkey and Sète and the rail between Sète and Tonneins, produce the same level of emissions (about 28kg of Co_2) as the deliveries by trucks to our customers in our catchment areas of 200kms.

• **Plant optimisation**: Aliénor Ciments is a 0.24Mta cement grinding plant located in Tonneins. Its modular design enables it to be constructed quickly, efficiently and environmentally friendly. The mill uses around 105t of Vega grinding balls to grind the clinker. To reduce the nuisance of the grinding process, the mill building is covered in a special cladding to lower noise pollution by 32dB to 82dB when the mill is in operation. In terms of emissions control, air compressors are used to move material and any dust is contained. The plant is equipped with a Scheuch baghouse with 6.5m-long bags for dust capture. There is also a stack which only emits waste air from the process and dust is kept below 20mg/Nm3.

- **The plant** – using Carbone 4 methodology with fixed assets & immobilization, energy consumption, company cars & vehicles, staff travel - **produces only 5kg of CO2/tonne of equivalent cement**

• **Cement recipes:** As a cement producer we can change blends and reduce the proportion of clinker used.

- Cem'in'Eu reduces the clinker factor and we reduce by -15kg of CO_2/tonne of equivalent cement

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We are on the EU transparency register under to number: 506912037725-23

Find out more at: www.cemineu.com