

EU climate legislation on the rise. Impact on the European ceramic industry.

Magdalena Vallebona

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Acceleration of the EU climate framework

55 by 2030

As surprising as it may seem, the EU climate framework has already been set in stone until the year 2030, even though we are “only” in 2024...With the adoption of the *Fit for 55* package, the EU ambition has been increased and the implementing legislation to achieve it is in full roll out. We have established a new aim to reach **55% reduction of CO2 emissions by 2030** compared to 1990 levels in the EU. Following that, a series of revisions and proposals was necessary to adapt the EU legislation.

The EU ceramic industry is at the heart of these reforms, as the ceramic sectors are impacted by the EU climate law. The European ceramics has already reduced its total CO2 emissions by around 33% since 1990, and by more than 45% since its emissions peak in the years 2000. A lot has been achieved since then and we have re-instated our commitment to the net zero future in **the new 2050 Ceramic Roadmap**¹, published soon after the publication of the *Fit for 55* package in Fall 2021.

Emission Trading in the EU

The EU Emission Trading System (EU ETS) has always been the cornerstone of the EU climate policy. For the ceramic industry, it is also a key legislation in place, as our sectors represent the most numerous industry in terms of the number of installations covered by the EU ETS (ca. 10% of all industrial installations in the EU ETS belong to ceramics), despite emitting less than 1% of total CO2 industrial emissions in the EU ETS. Large majority of ceramic installations are the small emitters (below 25 000 tCO2/year).

There are many novelties with regards to the implementation of the EU ETS following the revision of the EU ETS Directive², approved in 2023. Apart from the impact of such new provisions as: the increased linear reduction factor, additional requirements and conditionality of the free allocations (based on the energy efficiency audits and the Climate Neutrality Plans), the forthcoming review of the ETS benchmark values, etc., the ceramic industry is strongly impacted by the raising CO2 price.

¹ Ceramic Roadmap to 2050 can be found here: <https://www.ceramicroadmap2050.eu/>

² EU ETS Directive, consolidated version is available here: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02003L0087-20230605>

The carbon price reached ca. 100 EUR/t CO₂ for the first time in early 2022 and is currently oscillating around 70 EUR/t CO₂. It is a significant jump, comparing to the 20-30 EUR/t CO₂ level it held since 2018 until 2021, and a 20-fold increase when looking at 5 EUR/tCO₂ that we had just before that period. According to our estimations the total compliance costs, stemming from the purchase of CO₂ certificates, for the ceramic industry in the period 2021-2030 will add up to: ca. 8,5 bn EUR.³

Moreover, a new parallel system – ETS 2 – for buildings, transport and additional industry sectors has been created. It will also have an impact on the ceramic industry. Over 400 additional installations from the sectors such as: tableware (over 117 installations), sanitaryware, technical ceramics, abrasives, bricks and roof tiles, ceramic tiles and refractories, will be impacted by the ETS 2 from 2027. It will concern the smaller ceramic installations, which are currently not in the ETS 1⁴. These companies will be subjected to the carbon price developed under the ETS 2. As predictions are difficult to make on the ETS 2 price, we estimate that at least 37 mln EUR of additional costs will be added in 2027 due to compliance with the ETS 2⁵. In case the ETS 2 price grows until 200 EUR/t CO₂ in 2030, as predicted by analysts⁶, these compliance costs will increase up to 148 mln EUR per year.

The EU ETS compliance is a significant factor for the competitiveness of the ceramic companies, especially for the sectors exposed to the carbon leakage and at risk of investment, jobs and emissions relocation out of the EU. These sectors, such as bricks and roof tiles, ceramic tiles, refractories, sanitaryware and tableware currently face extremely high competition on the EU markets (with numerous product substitutes) and abroad, including existence of the EU anti-dumping duties on few ceramic products for China, India, Turkey.

Taxing CO₂ at the border

Carbon Border Adjustment Mechanism (CBAM) is another “baby” of the *Fit for 55* package. The Regulation to tax imported carbon in the EU comes at an important geo-political moment and is seen as a new way to protect from the carbon leakage risks.⁷ The sectors covered by the legislation are: iron and steel, cement, fertilizers, aluminium, hydrogen and electricity. The CBAM will fully apply from 2026, while the current transitional phase lasts between 2023 and 2025. The gradual introduction of the CBAM is aligned with the phase-out of the allocation of free allowances under the EU ETS. Moreover, the European Commission will prepare a report and a legislative proposal assessing a potential extension of the CBAM scope to other EU ETS sectors in 2025/2026.

Currently, the ceramic industry is not under the scope of EU CBAM. We have observed that there are numerous challenges in potential implementation of CBAM for the ceramic sectors. First of all, as ceramic industry is highly export-oriented (up to 40% of ceramic production being exported every year) it is necessary, to introduce a solution that would ensure the competitiveness of the EU products abroad, where they do not face comparable carbon costs. Secondly, ceramic industry is highly heterogenous, with numerous and diversified products and an introduction of CBAM would create high administrative complexity (also due to the lack of embedded emissions data from abroad and the

³ Assuming the carbon price growing linearly up to 140 EUR/tCO₂ in 2030.

⁴ According to the EU ETS Directive Annex 1 definition, the threshold for the inclusion in ETS 1 for ceramics is 75 t/day of production capacity.

⁵ Assuming the ETS 2 carbon price of ca. 50 EUR/t CO₂.

⁶ “EU ETS2 prices seen hitting €200 mark by 2030 -analysts”, Carbon Pulse, 22 March 2024, <https://carbon-pulse.com/271109/#:~:text=unveiled%20this%20week-,Prices%20in%20the%20EU's%20ETS%20for%20transport%20and%20heating%20fuels,required%20to%20read%20this%20content>

⁷ More information on CBAM can be found on DG Taxud website: https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

difficulty to establish the default values). Among others, high circumvention risk can also be mentioned, including due to the high level of substitutability of ceramic products. For example: different types and raw materials for brick or tile products make it difficult to differentiate them from each other.

All the above described regulatory changes, related mainly to the EU ETS review and the CBAM introduction, indicate a substantial acceleration of the EU climate framework in the current period until 2030.

What will future hold?

Fit for 90? 2040 target discussions

In February 2024 the European Commission published a Communication on the 2040 climate target⁸, which launches a discussion on the future EU objective in terms of CO2 emissions reductions. The Commission recommended reducing the EU's net greenhouse gas emissions by 90% by 2040 relative to 1990. The necessary review of the EU legislation will have to follow suit.

The EU ceramic industry underlines in its press release⁹ that without increased investment capacity, any acceleration of the achievement of net zero target is not realistic. The difficulties of the current market situation in the EU, including the consequences of the recent energy crisis of 2022, put the required decarbonisation investments into question.

Moreover, as outlined in the Ceramic Manifesto for 2024-2029¹⁰, we recommend policy makers to consider the challenges that the industry faces and to introduce essential changes to the current policy framework. Therefore, we would welcome the EU ETS aimed more at incentivizing growth in manufacturing while promoting decarbonisation, a secure access to green energy sources at competitive prices and a better protection for industrial energy customers in the EU in case of energy crisis.

“More carrots less sticks” necessary...

The necessary increase in the decarbonisation investments and the added to it increase of the compliance costs are already constituting a challenge for the ceramic companies, and in particular for the multiple SMEs. The SMEs constitute over 80% of the ceramic industry players.

The Ceramic Roadmap to 2050 outlines the decarbonisation pathways available for the industry (green hydrogen, green electricity and bio-fuels) and enumerates the needed technologies, some mature, some still in R&D phase¹¹.

Currently, the lack of enabling conditions, such as green energy supply at competitive prices or access to local energy infrastructure in rural areas (such as electricity grids or hydrogen backbone), makes full switch to renewable energy sources a distant concept. It certainly requires continuing maintaining the technological neutrality and openness for the ceramic industry decarbonisation process. Moreover, access to the relevant specific innovation funding for SMEs is needed. Further simplification of rules

⁸ https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en

⁹ CU Press release of 13 Feb 2024, available here: <https://cerameunie.eu/media/stpdayhi/24-02-12-cu-press-release-2040-target.pdf>

¹⁰ Ceramic Manifesto for 2024-2029 is available here: https://cerameunie.eu/media/li4nqrx/final-digital-long-version-for-website-ceramunie-manifesto_6ptrytych_v11-blueurllink-17112023-_pbp.pdf

¹¹ Please see chapter: “Continuing our path towards climate neutrality”, available here: <https://www.ceramicroadmap2050.eu/chapters/continuing-our-path-towards-climate-neutrality/>

for small emitting installations under EU ETS and extended application of small emitter schemes (EU ETS Directive, Art. 27) should be looked into. The more creative instruments must urgently be put in place at the EU level to incentivise electrification as well as the overall green transition, starting with the indispensable indirect costs compensations for the ceramic industry, until the development of the new Carbon Contracts for Difference opportunities. Ensuring a continued carbon leakage protection must be guaranteed as well, for both ETS 1 and ETS 2, at the EU level. For this purpose, the better, more targeted use of ETS 1 and ETS 2 revenues is necessary...

One could summarize, that simply “more carrots and less sticks” are needed for the ceramic industry to progress on its decarbonisation strategy towards the net zero emissions in 2050.