



# **Impact of EU ETS on the structure and profitability of the cement industry**

# Impact of EU ETS on the cement industry

---

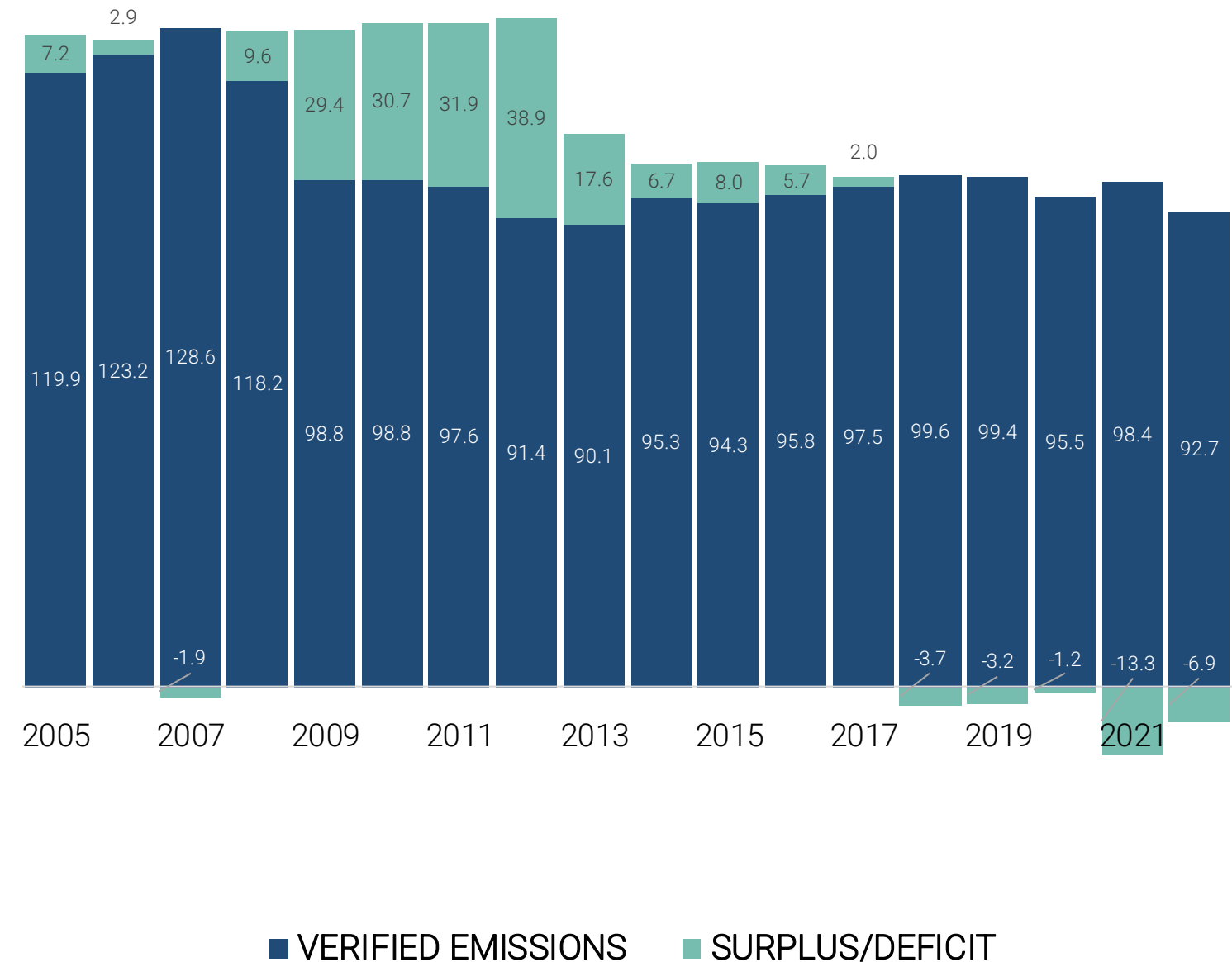
## CONTENTS

- What is the EU ETS?
- What has it achieved?
- Impact of ETS on profitability
- CBAM
- Key issues facing the industry

# EU Emissions Trading System (EU ETS)

- The EU ETS was launched in 2005 as the world's first major carbon market.
- Phase I (2005-2007): Energy-intensive industries
  - Pricing started at 20-30 per ton but collapsed in 2007
- Phase II (2008-2013):
  - Free allocations > needs
  - Selling excess allocations (about €5bn in profits in Phase II and III).
- Phase III (2013-2020): Market Stability Reserve to address oversupply and stabilize prices
  - Free allocation gradually reduced. By the end of the period, need > free allocations
- Phase IV (2021 on): covers additional sectors, CBAM to take over from free allocations

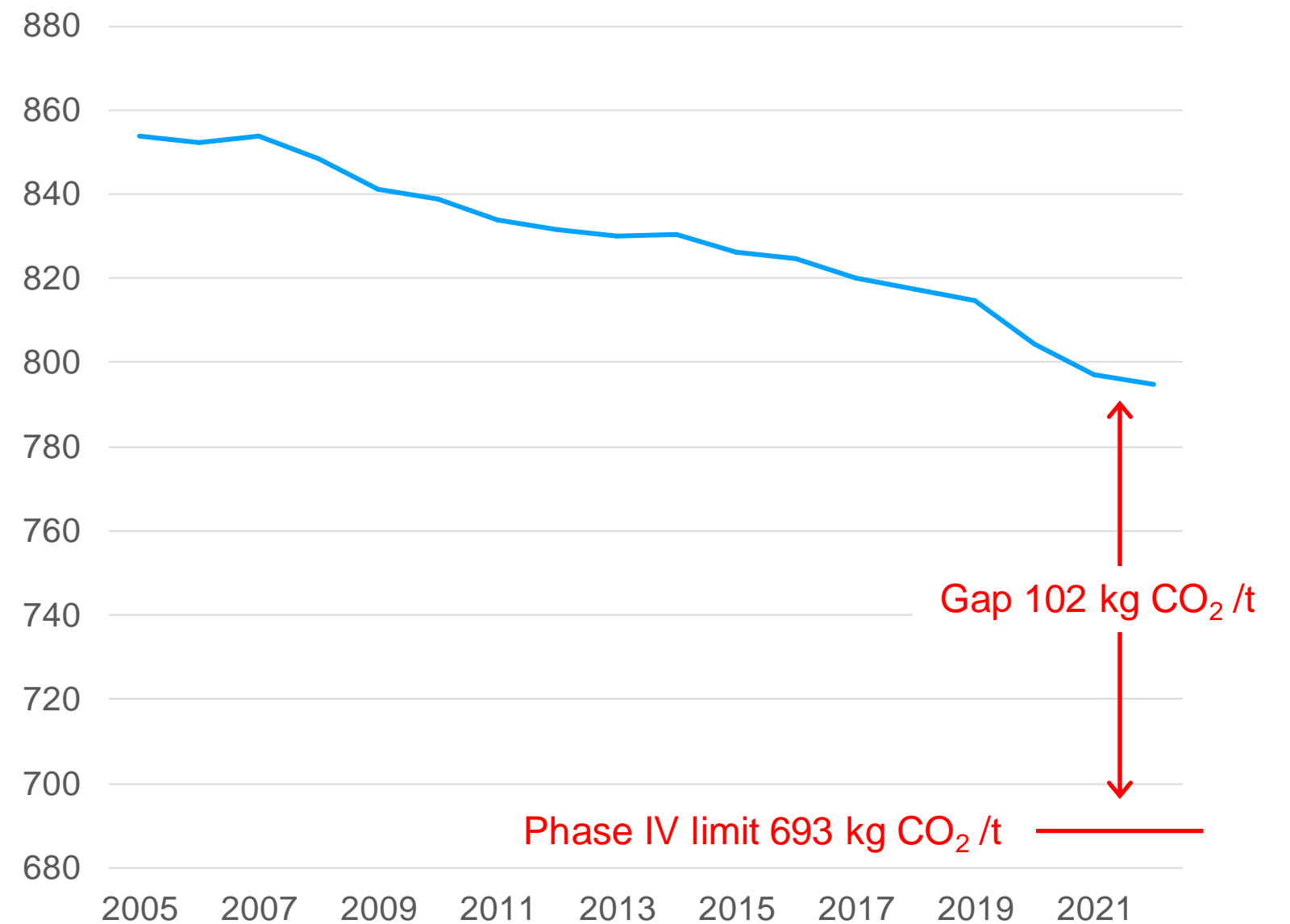
## Cement Industry: Emissions vs Free Allocations



# EU ETS So Far: What has it Achieved?

- Phase III factor at 766 kg CO<sub>2</sub> /t for grey clinker, Part 1 of Phase IV at 693 kg CO<sub>2</sub> /t
  - Based on prior 2 years production
- European cement companies setting ambitious 2030 targets for scope 1 emissions per ton of cementitious:
  - Holcim 420 Kg/t (2023 590 Kg/t)
  - Heidelberg 400 Kg/t (2023 534 Kg/t)
  - Buzzi 500 Kg/t (2023 570 Kg/t)
- ETS is not the only lever. There are increasingly strict requirements in public procurement and planning rules on:
  - Embodied carbon per m<sup>2</sup>
  - Reuse of materials

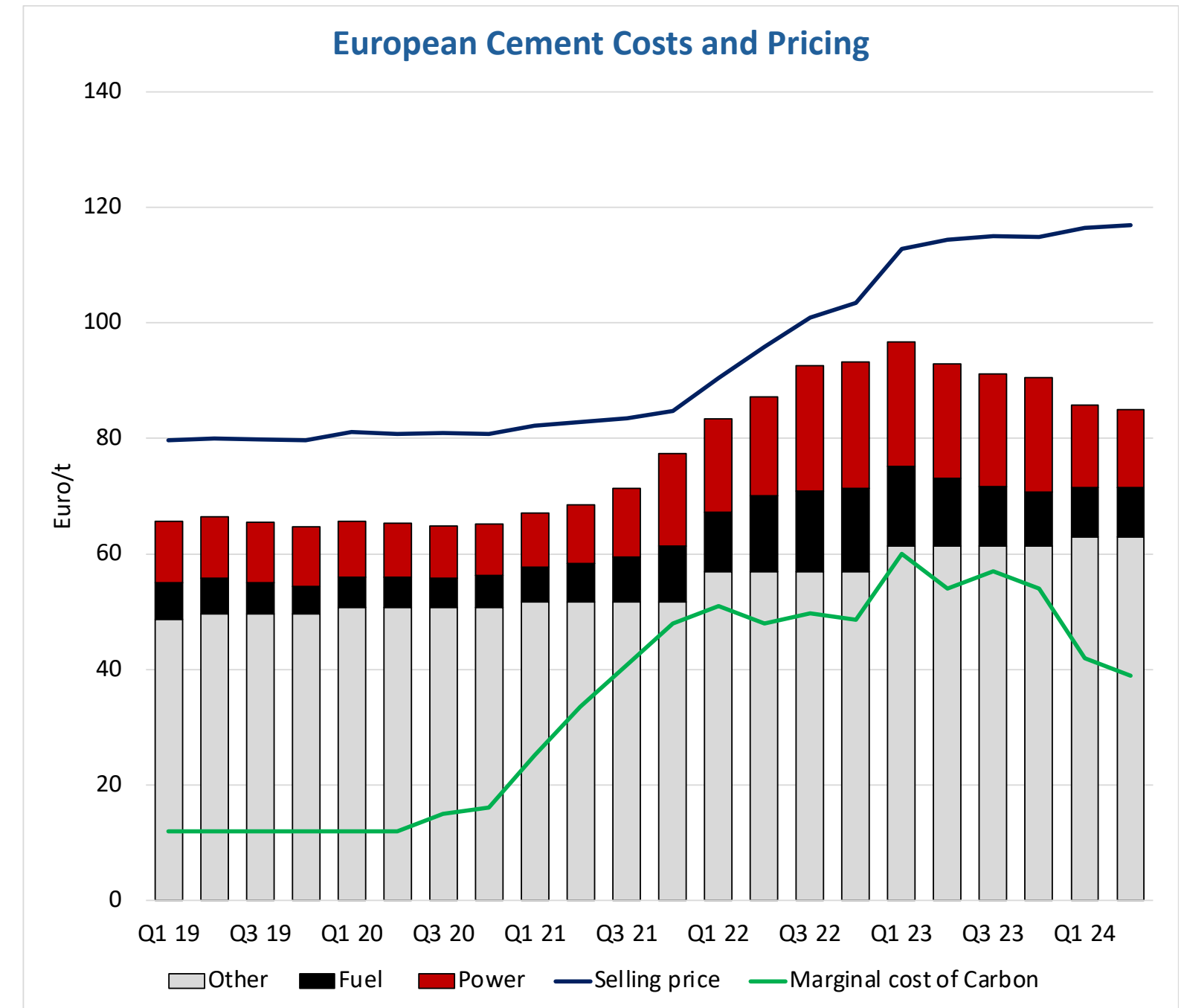
Long Term Evolution of kg CO<sub>2</sub> /t of clinker (EU ETS)



Source:  CemBR

# Impact of ETS on Cement Pricing and Profitability

- Cement prices increased rapidly in 2022 due to the increased energy costs and have held those gains
- In Northern Europe:
  - Less exposed to import price competition
  - Prices started to rise in 2021 and have risen in line with marginal costs to over €150 per ton and £160 per ton in UK
  - Europe focussed companies (e.g. Breedon, Vicat) saw big increases in profits in 2022
- The effect of the free allocation is similar to the kiln operation limits in China during 2016-2021.



Source: On Field Research

# CBAM will replace Free Allocations

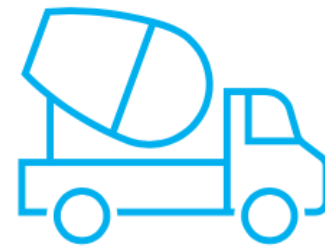
Carbon pricing mechanism designed to prevent carbon leakage replacing free allocations

CBAM is scheduled to begin operation in 2026 with a transitional period from 2023 to 2025

CBAM will require importers to pay a carbon levy on goods that are subject to the EU ETS

The CBAM is intended to be WTO-compatible

Cement



Fertilizers



Iron and Steel



Aluminium



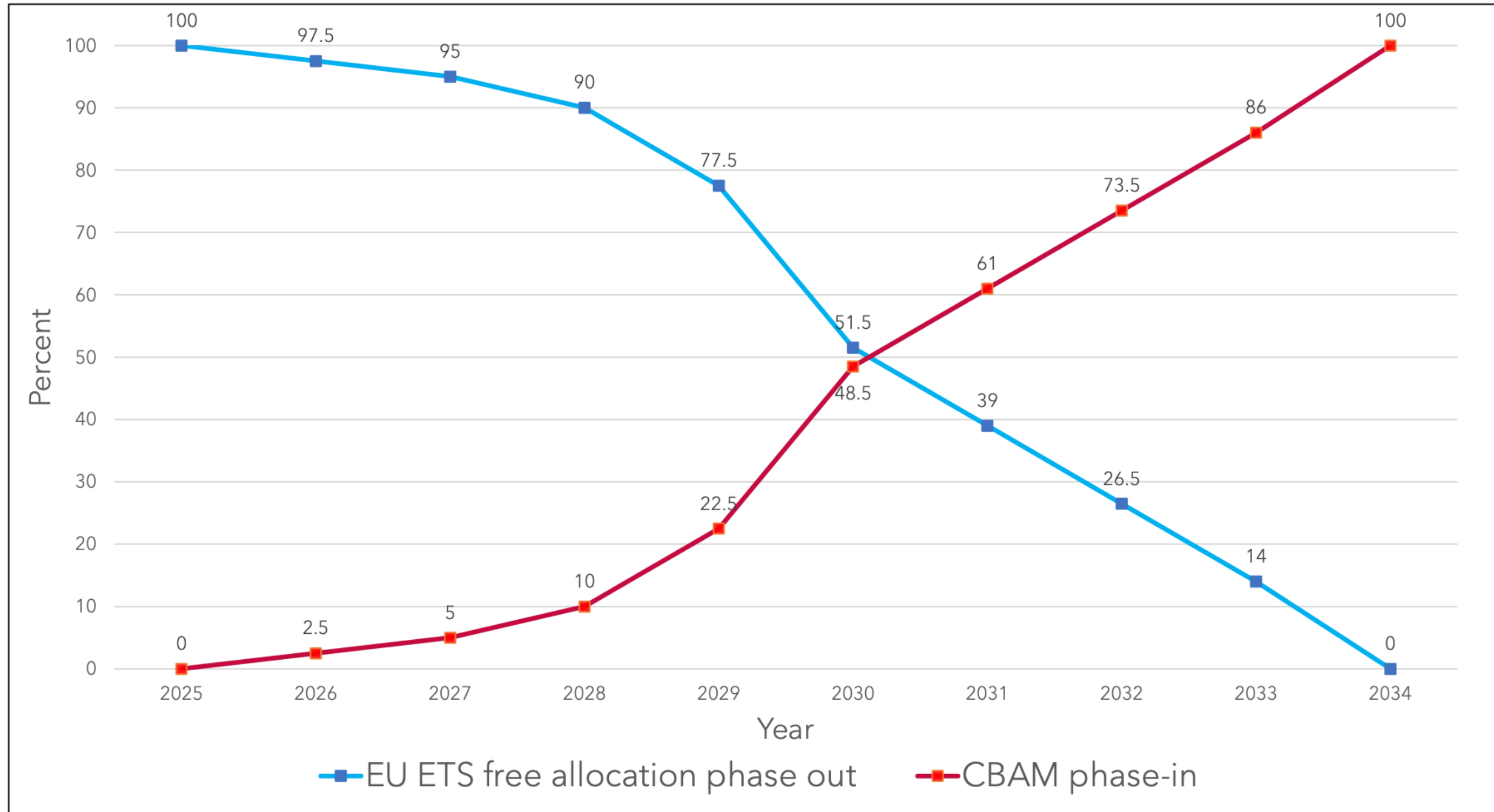
Electricity



Hydrogen

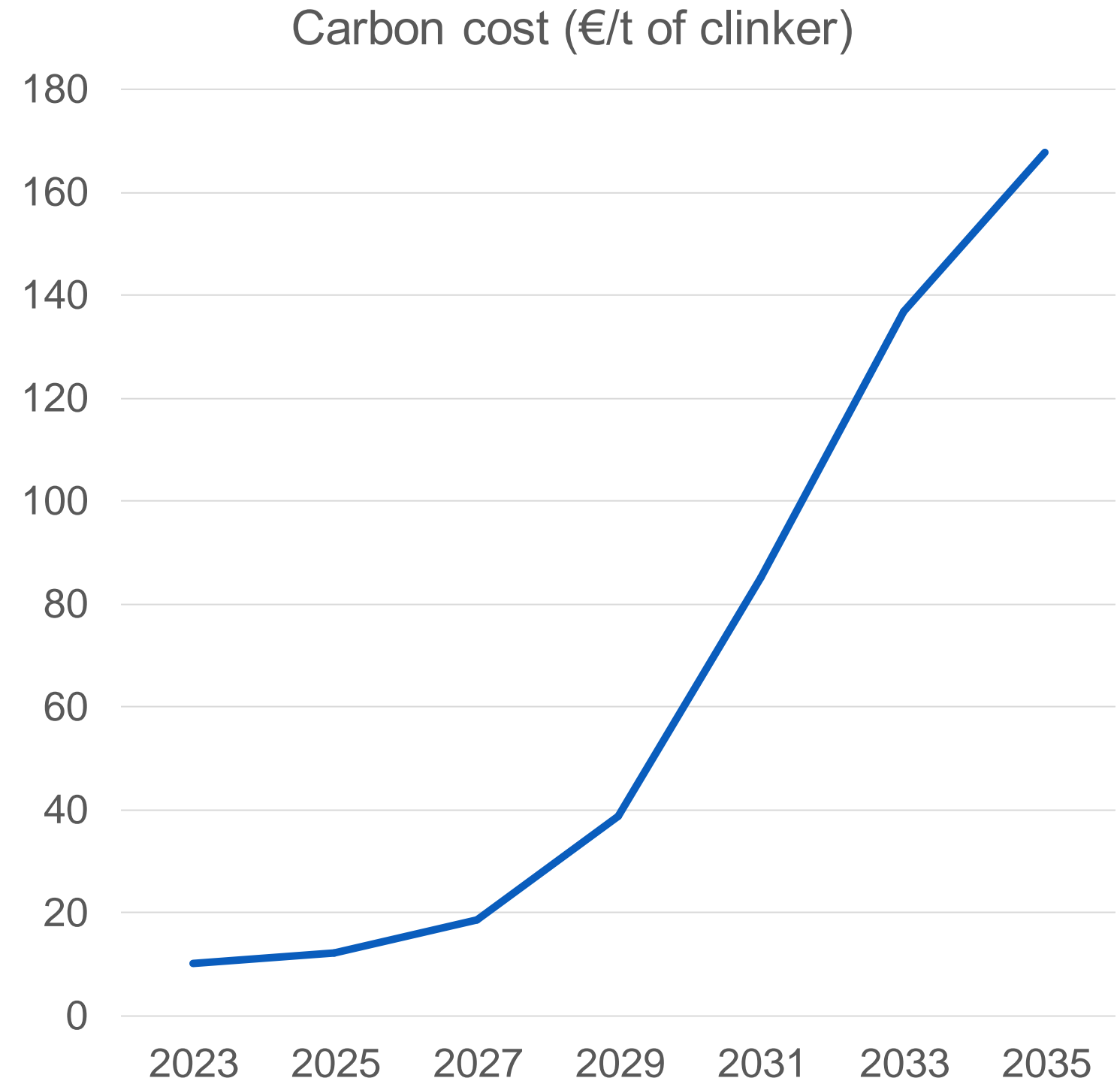


# CBAM Phase-in



# What changes will CBAM bring

- CBAM will replace free allocation
- The **average** carbon cost for cement **sold** in Europe will increase to about €170/t of clinker vs <€10/t today
- Potential impact of carbon price on the European industry:
  - Closures of plants: highest carbon intensity and most expensive to abate
  - Huge CAPEX required for pre-calciners, CCUS and other projects
  - Clinker factor is still high at 77% will see much more LC3 and use of other SCMs
  - Greater substitution of cement with geopolymers, concrete, CLT
- **Leading to ... higher prices, lower demand**





# Key Issues for the European Cement Industry

The industry is in transition and faces big **challenges** :

- Impact of carbon pricing on replacement of clinker by other materials
- Supply chain efficiency and digitalisation
- Changes in competitive position of plants, based on proximity to carbon storage hubs
- Massive Capex required to stay in business

**Customers** are frustrated by lack of low carbon alternatives from the industry

- Contractors are increasingly willing to enter the materials business
- Developers are more willing to optimise design and material selection early in projects
- The pressure to increase circularity will change the way that developers execute projects

We must **engage with government** to promote good policies

- Public procurement is a major lever to create a market for green products
- Carbon pricing can help the industry remain profitable
- We should aim to incentivise a profitable transition to a low carbon future

