Setting a vision for a meaningful low-carbon concrete quota

Scenario modelling of quotas against different low-carbon definitions

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Project name
Setting a vision for a meaningful low-carbon concrete quota – Scenario modelling of quotas against different low-carbon definitions

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Executive summary

The EU market can deliver a substantially higher low-carbon concrete and mortar quota in public procurement than the 5% currently proposed under the Industrial Accelerator Act. This study finds that available supply can support a credible quota between 32% and 79%, depending on the definition of low-carbon concrete.

The proposed 5% quota understates what the EU market can deliver. The figure was derived from a narrow supply base: the pipeline of CCS-equipped cement plants at Final Investment Decision, estimated at 2.3 Mt by 2029, or roughly 1% of EU production. CCS remains an important route for deep decarbonisation, but it is one among several technologies available to reduce the carbon footprint of concrete. The routes that dominate deployable supply this decade, such as supplementary cementitious materials (SCMs), clinker alternatives, novel binders, and recycled fines, were not considered.

When the broader supply base is considered, the market picture changes materially. This study maps the available low-carbon concrete supply from different routes against the public procurement demand falling within the scope of the IAA. It then constructs three quota scenarios of increasing ambition, each defined by a concrete-level carbon-performance threshold already used by market actors: ConcreteZero for the **conservative** scenario, the First Movers Coalition for the **ambitious** scenario, and a midpoint for the **moderate** scenario. The scenarios are verified against national standards and industry benchmarks used in the top five European concrete markets (covering 70% of EU concrete production), and are further triangulated with ten targeted interviews across cement producers, innovators, contractors, recyclers, and buyers.

Table 0-1. Defined low-carbon scenarios used in the analysis.

Low-carbon definition scenario	GWP threshold (kg CO_2e /m^3), set for C30/37 concrete	Calibration anchor	Composition characteristics		
			Clinker ratio (%)	SCM share (%)	GWP reduction vs. baseline: 250 kg CO_2e /m^3
Conservative	213	**ConcreteZero's** concrete threshold.	74%	23%	15%
Moderate	175	Midpoint between two outer anchors.	57%	40%	30%
Ambitious	124	**First Movers Coalition's** (FMC) concrete threshold.	40%	57%	50%

The results show that under all three definitions, the existing pipeline supports a materially higher quota than 5%. Eligible supply reaches 46.3 Mt of cement under the conservative scenario, 43.2 Mt under the moderate scenario, and 18.6 Mt under the ambitious scenario. Each case is above the 2.3 Mt CCS-only pipeline used to inform the 5% figure. Compared against public procurement demand within the scope of the IAA, it **yields a credible quota level of 79% (conservative), 74% (moderate) and 32% (ambitious)**.

Table 0-2. Proposed quota range per low-carbon definition scenario, following application of the 50% policy-adjustment factor, simplified

Low-carbon definition scenario	GWP threshold (kg CO_2e/m^3)	Credible quota
Conservative	213	79%
Moderate	175	74%
Ambitious	124	32%

Cost is not the binding constraint. The main argument against a more ambitious quota, that low-carbon concrete carries an unavoidable green premium, is not supported by the evidence. Analyses indicate that clinker-substitution and SCM routes deliver up to 50% GWP reduction at negligible additional cost, and the Commission's own IAA Impact Assessment estimates the 5% target adds only around 0.10% to the price of a construction project.

The quota should be decided jointly with the definition it references. The credibility of any quota depends on the timely operationalisation of the low-carbon definition, currently deferred to delegated acts under the Construction Products Regulation and the Ecodesign for Sustainable Products Regulation. Legislators should therefore couple the revised quota with a clear mandate that these definitions be operational ahead of the 2029 entry into force, and with a review clause enabling upward revision as the pipeline materialises.

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Glossary

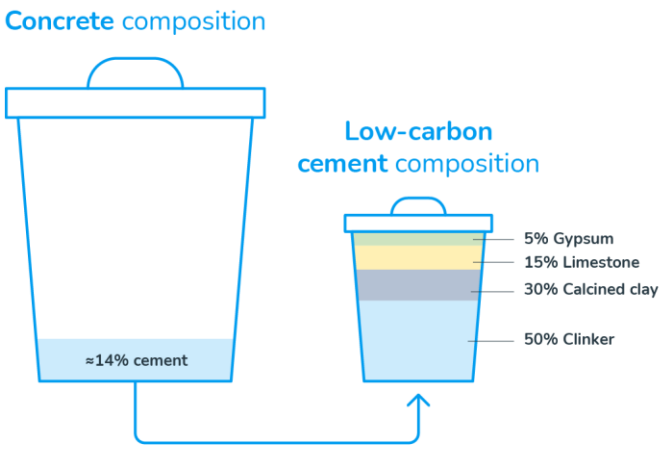
Abbreviations	
CCS	Carbon Capture and Storage
CO_2e	Carbon Dioxide Equivalent
CPR	Construction Products Regulation
EII	Energy-Intensive Industry
EPD	Environmental Product Declaration
ESPR	Ecodesign for Sustainable Products Regulation
EU	European Union
FID	Final Investment Decision
GDP	Gross Domestic Product
GGBS	Ground Granulated Blast-furnace Slag
GPP	Green Public Procurement
GWP	Global Warming Potential
IAA	Industrial Accelerator Act
MPa	Megapascal
Mt	Million metric tons or megatonnes
SCM	Supplementary Cementitious Material
TRL	Technology Readiness Level

1. Introduction

1.1 The IAA: a lead-market instrument for low-carbon concrete

The Industrial Accelerator Act (IAA), proposed on 4 March 2026, is a policy package designed to accelerate the production and uptake of clean industrial products within the EU single market, with a particular focus on energy-intensive industries (EIIs). Specifically, it establishes mandatory minimum shares for low-carbon materials in public procurement, including a **quota for low-carbon concrete and mortar set at 5% of total volume** from 1 January 2029 [1].

Figure 1-1. Typical composition of concrete [2] and low-carbon cement [3] (% of the weight)



Public procurement is considered a decisive lever: at roughly 15% of EU GDP, it enables the public sector to shape demand, de-risk investment in first-of-a-kind installations, and help bridge the "green premium" that currently constrains uptake of low-carbon construction materials [4].Anchoring the requirement at the concrete level, rather than at the cement level, reflects the fact that public authorities procure the final product and preserves technology neutrality, allowing different technologies, including supplementary cementitious materials (SCMs), clinker alternatives, novel binders, and carbon capture and storage (CCS), to compete on outcome rather than route [5]. Performance-based limits expressed in kg CO_2e/m^3 further give designers, specifiers and suppliers the flexibility to optimise mix designs against a common environmental benchmark [6]. In this regard, the IAA quota is not merely a procurement rule but the EU's principal lead-market instrument for concrete decarbonisation.

[1] European Commission, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110, 2026 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52026PC0100> [accessed 10 August 2026].

[2] EEB, *Cement It Better: Unlocking Low-Carbon Concrete in Europe*.

[3] Please note that the shown composition is only one of the alternatives for low-carbon cement, based on LC3 cement composition. See also UNIDO, *LC3: A Guide to Best Practices for Scalable, Affordable, and Sustainable Low-Carbon Building* (2026) <https://lc3.ch/wp-content/uploads/2026/05/LC3-brochure_supported-by-UNIDO.pdf>.

[4] Jacob Steinmann and others, *Green Public Procurement in Construction - Driving Public Purchase towards Truly Green Construction Products and Materials*, published online 7 November 2024, doi:10.5281/zenodo.14000359; Bellona, *Green Public Procurement of Cement and Steel in the EU: An Overview of the State of Play* (2024) <https://eu.bellona.org/publication/gpp-of-cement-and-steel-in-the-eu/>.

[5] ECOS, *Towards a Meaningful Quota for Low-Carbon Concrete in the Industrial Accelerator Act* (2026) <https://ecostandard.org/publications/towards-a-meaningful-quota-for-low-carbon-concrete-in-the-industrial-accelerator-act/>.

[6] EEB, *Cement It Better: Unlocking Low-Carbon Concrete in Europe* (2026) <https://eeb.org/en_gb/library/cement-it-better-unlocking-low-carbon-concrete-in-europe/>.

1.2 The Commission's 5% proposal: a narrow evidence base

Notwithstanding the strategic role of the IAA quota, market actors have broadly regarded the proposed 5% threshold as insufficient to generate a meaningful demand signal. According to the Commission's Impact Assessment [7], the figure was primarily informed by the pipeline of CCS-equipped cement plants that had reached FID, with an **estimated 2.3 Mt by 2029**, equivalent to roughly 1% of EU cement production. This methodology did not explicitly account for the production capacity of other decarbonisation routes, such as SCMs and novel binders, recycled concrete fines, industrial by-products, and alkali-activated cements, risking both an underestimation of available low-carbon supply and the design of a quota that fails to stimulate innovation. Stakeholder responses to the proposal converge around two lines of critique:

- **Under-ambition relative to perceived available capacity**. Industry actors along the cement and concrete value chain have signalled that the 5% threshold understates what the market can deliver. The cement association Cement Europe, formerly Cembureau, has indicated that the 5% threshold "could be higher" if applied to near-zero and lower-carbon products, suggesting that the industry itself anticipates more stringent targets than those currently proposed [8]. The Alliance for Low Carbon Cement & Concrete (ALCCC) [9] has similarly argued that proven, scalable, and cost-effective clinker-substitution technologies, such as SCMs, alkali-activated cements, electric recycling of clinker, and novel low-carbon cement chemistries, are already available on the market and can deliver cost-effective emissions reductions before 2030. From the materials-recovery side, Recycling Europe calls for the IAA low-carbon target for concrete in public procurement to be raised from 5% to 30%, with a minimum of 15% sourced from recycled content [10], further underlining that SCM and recycled-fines feedstocks are not the binding constraint assumed by the Commission's pipeline.
These industry positions are consistent with recent JRC work on the design of mandatory Green Public Procurement (GPP) criteria [11], which finds that meaningful market transformation requires GPP uptake to reach a critical mass across contracts, with minimum quotas up to 50%. Other analyses converge on the feasibility of setting a higher quota, with proposals ranging from a step change to 50% as early as 2029 [12], to a phased trajectory rising from 10% in 2029 to 25% by 2040 [13].

[7] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110* (2026) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52026SC0071> [accessed 10 August 2026].

[8] Cement Europe, *Press Release - CEMENT SECTOR SIGNALS URGENCY AND CALLS FOR CONDITIONS TO UNLOCK INVESTMENT IN EUROPE* (2026) <https://cementeurope.eu/media/zggmmqoe/260326-press-release_cement-sector-signals-urgency-and-calls-for-conditions-to-unlock-investment-in-europe.pdf>.

[9] Alliance for Low-Carbon Cement and Concrete, 'Joint Letter – Clinker Substitution Technologies Should Be Front and Centre in the Industrial Accelerator Act', 2025 <https://alliancelccc.com/policy/clinker-substitution-technologies-should-be-front-and-centre-in-the-industrial-accelerator-act/>.

[10] Recycling Europe, 'Recycling Europe's Position on the Industrial Accelerator Act (IAA)', 2026 <https://recyclingeurope.org/publication/recycling-europes-position-on-the-industrial-accelerator-act-iaa/>.

[11] Magrini, Chiara and Gama Caldas, Miguel, *Method for the Definition of Mandatory Green Public Procurement Requirements*, EUR (Publications Office of the European Union, 2026) <https://data.europa.eu/doi/10.2760/8476275> [accessed 11 August 2026].

[12] ECOS, *Towards a Meaningful Quota for Low-Carbon Concrete in the Industrial Accelerator Act*; BBBB, *Position on the Industrial Accelerator Act Proposal Strengthening the Union's Strategic Industrial Value Chains* (2026) <https://www.ecostandard.org/wp-content/uploads/2026/06/20260626-Position-on-the-Industrial-Accelerator-Act-proposal.pdf>.

[13] Carbon Management Europe, *Recommendations for the Industrial Accelerator Act* (2026) <https://carbonmanagementeurope.org/publication/recommendations-industrial-accelerator-act/>.

- **Definitional gap:** The IAA mandates a quota for "low-carbon" concrete without providing a technical definition of the term, which has led to ambiguity, since emissions calculation methodologies and performance classes are deferred to future delegated acts under the Construction Products Regulation (CPR) and the Ecodesign for Sustainable Products Regulation (ESPR). Both Carbon Gap and Mission Possible Partnership note that this uncertainty raises the risk profile of FIDs, since investors cannot yet determine which production routes (e.g., CCUS-based, SCM-based, or novel binders) will qualify [14].

As such, these positions call for the 5% figure to be re-examined against a fuller reading of available supply and a workable definition of what qualifies, which this paper provides.

No systemic green premium for low-carbon concrete

The main argument against a more ambitious quota, that low-carbon concrete carries an unavoidable green premium, is not supported by the available evidence, particularly for the routes that dominate near-term deployable supply. Both UNIDO and ALCCC, drawing on IPCC assessment [15], find that clinker substitution and SCM blending can cut concrete's carbon footprint by up to 50% at negligible additional cost, and that widely available SCMs such as limestone, fly ash, and slag are not expected to translate into an additional premium in current market conditions. Mission Possible Partnership [16] similarly distinguishes deep CCS-based decarbonisation, which carries material premiums, from partial decarbonisation via material efficiency, clinker substitution, and fuel switching. It finds that CCS-based routes carry material premiums, while partial decarbonisation routes are considerably cheaper and, in some segments, cost-reducing, with a green premium of well under 1% at end-product level.

A previous Ramboll study reaches a similar conclusion, stating that introducing low-carbon requirements, such as CEM III/B, based on higher clinker substitution and recycled content adds only around 2% at concrete-material level and translates into an approximately 1.6% increase in total EU public procurement spending on concrete and steel [17]. The Commission's IAA Impact Assessment reaches a compatible conclusion at the downstream level: the 5% low-carbon cement target is estimated to add only around 0.10% to the price of a construction project, and even in combination with parallel low-carbon steel and aluminium targets the total price impact remains below 0.45% [18]. Taken together, the cost objection frequently raised against a more ambitious quota does not hold up against the evidence. Cost is therefore not the binding constraint on the ambition of the IAA concrete quota.

[14] Carbon Gap, 'EU Industrial Accelerator Act (IAA)', Industrial Accelerator Act (IAA), n.d. <https://tracker.carbongap.org/policy/industrial-accelerator-act/> [accessed 10 August 2026]; Mission Possible Partnership, *Strengthening Europe's Lead Markets for Clean Industry: Opportunities to Enhance the Industrial Accelerator Act* (2026) <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14505-Industrial-Accelerator-Act-speeding-up-decarbonisation/F33502294_en>.

[15] Alliance for Low-Carbon Cement and Concrete, *FAST-TRACKING CEMENT DECARBONISATION: From Underperforming to Performance-Based Standards* (2023) <https://alliancelccc.com/policy/report-fast-tracking-cement-decarbonisation/>; UNIDO, *LC3: A Guide to Best Practices for Scalable, Affordable, and Sustainable Low-Carbon Building*.

[16] Mission Possible Partnership, Industrial Transition Accelerator, and E3G, *Building the EU's Clean Industrial Future: Unlocking Investment through Lead Markets* (2025) <https://www.e3g.org/wp-content/uploads/Building-Europes-Clean-Industrial-Future-Unlocking-Investment-through-Lead-Markets.pdf>.

[17] Jacob Steinmann and others, *Green Public Procurement in Construction - Driving Public Purchase towards Truly Green Construction Products and Materials*, published online 7 November 2024, doi:10.5281/zenodo.14000359.

[18] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110*.

1.3 Purpose and scope of this brief

This policy brief addresses an empirical gap in the evidence base underpinning the low-carbon concrete quota proposal. It maps available supply capacity and validating assumptions with industry stakeholders, to support EU decision-makers in setting a meaningful quota under the IAA.

The analysis develops three scenarios of increasing ambition. Each is defined by a distinct Global Warming Potential (GWP) threshold for concrete, expressed in kg CO_2e/m^3, and matched against the EU pipeline of low-carbon cement and SCMs expected by 2030.

For each scenario, the brief defines a credible quota range by mapping scenario-eligible supply against public procurement demand above the IAA thresholds. It grounds the scenario definitions in GWP thresholds derived from national concrete-industry references from the top five EU concrete producers, which together cover 70% of EU production. It then maps supply by project, including technology type and expected 2030 capacity, drawing on both direct pipeline data and EU-wide SCM aggregates.

2. Methodology

2.1 Overall study design

The analysis presented in this brief consists of **three parallel strands of work**, developed concurrently and iteratively, to produce a set of low-carbon concrete quotas that are both empirically grounded and industry-validated.

- **The first strand is a supply-side mapping of the EU low-carbon cement production capacity expected to be operational by 2030**. This mapping consolidates the existing evidence base on the IAA concrete quota [19], extends it with a bottom-up review of publicly announced projects across the main EU producer countries, and complements it with the EU-wide aggregates for SCMs. The output is a dataset covering, per project, the technology type, expected annual production capacity by 2030.
- **The second strand is a scenario-modelling exercise that maps this supply against the projected EU public procurement demand falling within the scope of the IAA**. Three ambition scenarios – conservative, moderate, and ambitious – are constructed, each defined by a distinct GWP threshold for concrete, calibrated against established voluntary industry commitments. For each scenario, the modelling derives a raw market coverage ratio and, from it, a credible quota range using the methodology detailed in the subsequent sections. The scenario modelling tests whether the market can supply the volumes implied by each candidate low-carbon definition and identifies the most ambitious quota that supply can realistically meet.
- **The third strand is a structured validation with industry stakeholders**. In parallel with the modelling, ten targeted interviews were conducted with market actors spanning low-carbon cement producers, contractors, recyclers, and buyers. The purpose of these interviews was twofold: (i) to consolidate the underlying evidence base on technology type, production capacity and TRL by 2030, and (ii) to validate the assumptions used in the scenario modelling, in particular the classification of technologies against the scenario thresholds and the credibility of different quotas. The findings of this consultation are reflected throughout the paper.

Together, these three strands ensure that the quota proposals developed in this brief rest on a triangulation of published evidence, quantitative modelling and industry validation, rather than on any single source or analytical route.

2.2 Scenario logic and baseline construction

The modelling frames three scenarios, referred to throughout this brief as conservative, moderate and ambitious. Each scenario is defined by a distinct GWP threshold for concrete (expressed in kg CO_2e/m^3) and by a corresponding cement composition consistent with that threshold. The two outer scenarios are anchored on existing industry commitments: the conservative scenario is based on **ConcreteZero's** Low Embodied Carbon Concrete Threshold [20], which provides a broadly adoptable market floor, while the ambitious scenario is calibrated on the First Movers Coalition (FMC) concrete thresholds, which are designed to reflect breakthrough-technology ambition [21]. The moderate scenario is positioned as the

[19] ECOS, *Towards a Meaningful Quota for Low-Carbon Concrete in the Industrial Accelerator Act*.

[20] ConcreteZero, *ConcreteZero Commitment Framework and Campaign Overview* (2024) <https://www.theclimategroup.org/hubfs/ConcreteZero%20Commitment%20Framework%20and%20Campaign%20Overview_Dec%202024.pdf?hsLang=en>.

[21] First Movers Coalition and World Economic Forum, 'Cement and Concrete Commitment', 2022 <https://www3.weforum.org/docs/WEF_FMC_Cement_Concrete_Commitment.pdf>.

midpoint between the two outer anchors. The specific GWP thresholds, composition ratios and quantitative reasoning applied to each scenario are presented in further detail in Chapter 3.

The scenarios are anchored against a common baseline representing conventional concrete for the reference strength class C30/37, exposure classes X0 and XC1, derived from industry-published benchmarks across the EU's top cement-producing countries: Spain, Italy, Poland, France, and Germany. This baseline is conservative relative to alternative reference points, such as the EC3 European Environmental Product Declaration (EPD) market average for concrete[22]). The reduction percentages associated with each scenario should therefore be read as an upper bound of GWP reduction. The specific baseline value and its derivation are set out in Chapter 3.

The composition ratios used to represent each scenario at cement level, such as clinker share, SCM share, and gypsum, are treated as the operational representation of the concrete-level GWP thresholds within the modelling. Because cement accounts for around 95% of concrete's embodied emissions [23], variations in cement composition translate closely into variations in concrete-level GWP. This allows the concrete-level thresholds and the cement-level composition ratios to be treated as coherent expressions of the same scenario.

2.3 Supply and demand mapping approach

The supply side draws on a mapping of the EU low-carbon cement and SCM project pipeline expected to be operational by 2030. It combines three sources: (i) announced projects by cement producers and technology developers; (ii) EU-wide aggregates for SCMs; and (iii) the EU-wide CCS-clinker pipeline compiled by other studies [24].

Eligibility for each scenario is classified using technology type as a proxy for concrete GWP performance. This follows the logic that near-zero cement technologies, including CCS-clinker, alkali-activated cements, geopolymers, and clinker recycling, fall within the top approximately 20% of concrete performance for GWP. The classification rules are nested, so that supply eligible under a more demanding scenario is also eligible under the less demanding scenarios below it. This nested logic ensures internal consistency between scenarios and prevents double-counting when eligible supply is aggregated.

The demand side of the model is anchored on the volume of cement expected to be procured by public authorities in the EU by 2030 for construction contracts falling above the minimum EU public procurement thresholds. The anchor is derived by combining three inputs: (i) the total EU cement demand across all construction in 2030 [25]; (ii) the share of that demand attributable to public construction, [26] and (iii) the share of public construction falling above the EU procurement thresholds, derived from the ratio between above-threshold public construction contracts and total public construction value. The specific inputs, derived anchor value and the concrete-equivalent expression are presented in Chapter 3.

[22] EEB, *Cement It Better: Unlocking Low-Carbon Concrete in Europe*.

[23] Agora Industry, *Mobilising the Circular Economy for Energy-Intensive Materials (Study)* (2022) <https://www.agora-industry.org/publications/mobilising-the-circular-economy-for-energy-intensive-materials-study> [accessed 12 August 2026].

[24] Clean Air Task Force, *Strengthening Lead Markets in the Industrial Accelerator Act* (2026) <https://www.catf.us/resource/strengthening-lead-markets-in-the-industrial-accelerator-act/> [accessed 12 August 2026].

[25] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110*.

[26] Tomas Wyns, Harri Kalimo, and Gauri Amarsinh Khandekar, *Public Procurement of Steel and Cement for Construction. Assessing the Potential of Lead Markets for Green Steel and Cement.*, (Brussels), July 2024 <https://hdl.handle.net/20.500.14017/d3db9a3c-2112-4e12-b38c-165f7d44cd3c>.

3. Scenario design and market anchors

3.1 Scenario definitions and baseline

The three scenarios framed in Chapter 2 are specified in terms of their concrete-level GWP thresholds, cement composition ratios, reductions against the baseline, and calibration anchors.

Table 3-1. Defined low-carbon definition scenarios as part of the analysis.

Low-carbon definition scenario	GWP threshold (kg CO_2e /m^3), set for C30/37 concrete	Calibration anchor	Composition characteristics		
			Clinker ratio (%)	SCM share (%)	GWP reduction vs. baseline: 250 kg CO_2e /m^3
Conservative	213	**ConcreteZero's** concrete threshold.	74%	23%	15%
Moderate	175	Midpoint between two outer anchors.	57%	40%	30%
Ambitious	124	**First Movers Coalition's** (FMC) concrete threshold.	40%	57%	50%

Anchoring of the scenarios

The three scenarios are anchored in external reference frameworks to ensure that their thresholds are calibrated against national benchmarks already used by market actors.

For the conservative scenario, the GWP threshold is set at 213 kg CO_2e /m^3, slightly stricter than ConcreteZero's Low Embodied Carbon Concrete Threshold, which is defined at 231 kg CO_2e/m^3 for C30/37 concrete [27]. Under the ConcreteZero commitment framework, members, such as major contractors, developers, and engineers, commit to procuring and specifying 50% of their total concrete consumption by volume below this threshold by 2030, en route to 100% net-zero concrete by 2050. As of 2025, 55% of the concrete used by member organisations already met the ConcreteZero threshold for 2030, above the 30% interim target set for 2025 [28]. Setting the conservative scenario slightly stricter than the ConcreteZero threshold therefore reflects both the fact that market delivery across members is already outperforming the benchmark and the fact that ConcreteZero's own framing positions its threshold as a minimum rather than a stretch target. The **74% clinker ratio** applied to the conservative scenario corresponds directly to Cement Europe's 2030 clinker-to-cement target, which envisages the EU average moving from 77% clinker in 2017 to 74% by 2030 and 65% by 2050 [29]. This anchor was chosen because it represents the composition trajectory that the EU cement industry itself has publicly committed to deliver at sector average by the end of the decade, and is therefore an appropriate composition floor for a "conservative" definition of low-carbon concrete.

[27] ConcreteZero, *ConcreteZero Commitment Framework and Campaign Overview*.

[28] ConcreteZero, '55% of Concrete Used by Major Corporates Meets Low-Carbon Standard - ConcreteZero Analysis', 2026 <https://www.theclimategroup.org/our-work/press/55-of-concrete-used-by-major-corporates-meets-low-carbon-standard-concretezero-analysis>.

[29] Cement Europe, 'USE OF SECONDARY RAW MATERIALS IN THE EU CEMENT INDUSTRY QUESTIONS & ANSWERS', 2023 <https://www.cementeurope.eu/media/mw1lpkq4/230123-cembureau-qa-secondary-materials.pdf>.

The ambitious scenario is calibrated on the FMC concrete thresholds, set at 124kg CO_2e /m³ for C30/37 concrete. FMC members commit to purchasing at least 10% of their cement or concrete (by volume) as low-emissions material, against thresholds defined by strength class, including 124 kg CO_2e/m^3 for concrete in the 27.59–41.37 MPa range, broadly equivalent to C30/37. The FMC framework is designed to advance the technologies required for deep decarbonisation, with thresholds set for breakthrough technologies, such as carbon capture and alternative cement chemistries [30]. The **40% clinker ratio** used for this scenario is anchored on the trajectory pursued by the Horizon Europe MSCA project **DETOCS** [31] (Data to Enable Transformation and Optimisation for Concrete Sustainability), coordinated by Fuller Technologies Denmark A/S and running from 2023 to 2027. This anchor was chosen because it reflects an ambition level explicitly framed around near-term (2030) breakthrough deployment, and is therefore an appropriate composition anchor for an "ambitious" definition of low-carbon concrete.

The moderate scenario is positioned as the midpoint between the two outer anchors. Its GWP threshold, 175 kg CO_2e/m^3, is set halfway between the conservative threshold of 213 kg CO_2e/m^3 and the ambitious threshold of 124 kg CO_2e/m^3. Its cement composition, 57% clinker and 40% SCM, is likewise the midpoint between the Cement Europe 2030 sector-average target of 74% clinker and the DETOCS 2030 breakthrough target of 40% clinker.

Baseline construction

The scenarios are anchored against a baseline of 250 kg CO_2e/m^3, derived as 90% of the average of 278.5 kg CO_2e/m^3 across the EU's top concrete-producing countries: Spain, Italy, Poland, France, and Germany, which together account for around 70% of total EU production.

The national benchmarks were sourced from national industry references and are considered rather conservative in terms of GWP threshold, likely due to an overestimation of share of CEMI-based mixes across the industry. Appendix 2 provides further details.

The resulting baseline sits above other publicly available reference points, including the EC3 European EPD market average of 188 kg CO_2e/m^3 [32]. Verifiability and alignment with national industry benchmarks was prioritised over stringency, in line with the policy-brief function of the analysis. A stricter baseline would produce smaller reduction of GWP relative to the baseline. The GWP reductions reported in Table 3-1 should therefore be read as an upper bound of GWP reduction in the context of this baseline choice.

Composition ratios as scenario representation

The clinker, SCM, and gypsum shares in Table 3-1 are the operational representation of each scenario's compositions within the modelling. As set out in Chapter 2, cement accounts for a large majority of concrete's embodied emissions [33], so variations in cement composition translate closely into variations in concrete-level GWP. The concrete-level thresholds and the cement-level composition ratios can therefore be treated as coherent expressions of the same scenario. The composition ratios were validated for credibility and technical feasibility against the corresponding GWP thresholds through the industry interviews carried out as part of the study. he two composition anchors used – the Cement Europe 2030 clinker-to-cement target of 74% and the DETOCS 2030 clinker-factor target of 40% – bracket the range of clinker reductions currently on the EU pathway, from sector-wide industry commitment at the conservative end to breakthrough-technology deployment at the ambitious end.

[30] ConcreteZero, *ConcreteZero Commitment Framework and Campaign Overview*.

[31] Fuller Technologies Denmark A/S, 'Data to Enable Transformation and Optimisation for Concrete Sustainability', 2026, doi:https://doi.org/10.3030/101119929.

[32] EEB, *Cement It Better: Unlocking Low-Carbon Concrete in Europe*.

[33] Agora Industry, *Mobilising the Circular Economy for Energy-Intensive Materials (Study)*.

3.2 Public procurement demand

The demand anchor used here is the volume of cement expected to be procured by public authorities in the EU by 2030 for construction contracts **above the EU public procurement thresholds (€5,404.000)**, which is the scope to which the IAA quota will apply. Contracts below the thresholds fall outside the IAA's legal reach and are therefore excluded from the primary demand estimation,

Including them would inflate the demand base beyond what the quota will apply to and thereby understate coverage. The total public procurement market is nonetheless retained as a secondary, lower-bound denominator in the Results. Three inputs are combined:

- **Total EU cement demand across all construction in 2030**: projected at 160.7 Mt [34].
- **Share of that demand attributable to public construction**: 31%, in line with the VUB study on public procurement of construction, steel and cement in the EU [35], which estimated public construction at 47 Mt of the roughly 152 Mt of EU cement consumption in 2019 – a proportion subsequently adopted by the Commission's Impact Assessment on the IAA [36].
- **Share of EU cement demand covered by public construction above the EU procurement thresholds**: 13%, derived from the ratio between €189 billion in above-threshold public construction contracts in 2023 and €453 billion in total public construction value [37].

Combining these three inputs yields a **2030 above-threshold public cement demand of 20.8 Mt**. Expressed at concrete level using the ERMCO reference cement content of 272 kg per m³ of concrete, this corresponds to **76.4 million m³ of concrete**, or **176–191 Mt** depending on the assumed concrete density (2,300–2,500 kg/m³).

[34] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110*.

[35] Wyns, Kalimo, and Khandekar, *Public Procurement of Steel and Cement for Construction. Assessing the Potential of Lead Markets for Green Steel and Cement.*

[36] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110*.

[37] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110*; Wyns, Kalimo, and Khandekar, *Public Procurement of Steel and Cement for Construction. Assessing the Potential of Lead Markets for Green Steel and Cement.*

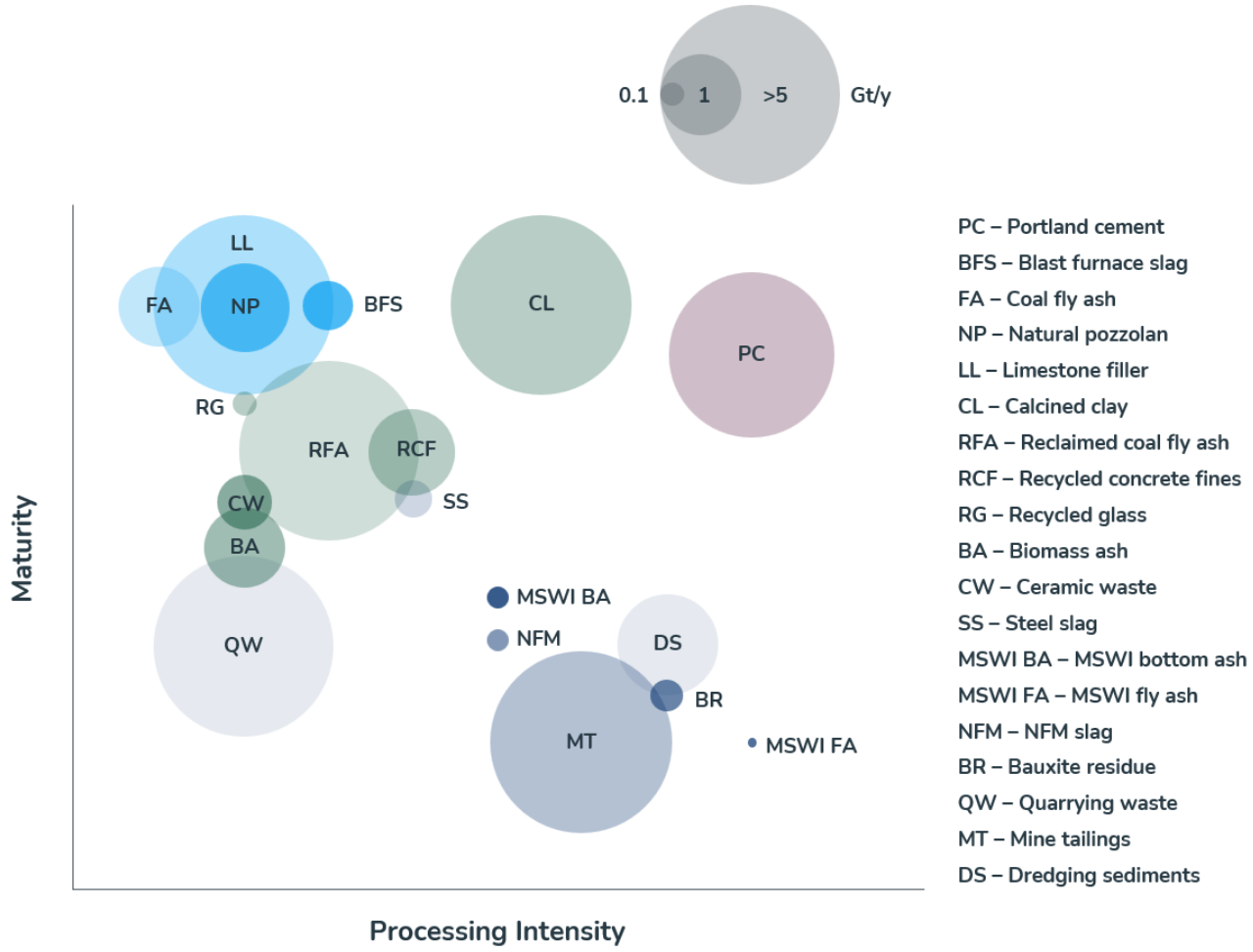
3.3 Supply mapping and eligibility classification

The supply side of the model draws on a bottom-up mapping of the EU low-carbon cement project pipeline expected to be operational by 2030. The pipeline combines three sources: individually named projects announced by cement producers and technology developers; EU-wide aggregates for SCMs, covering GGBS, fly ash, natural pozzolans, recycled concrete fines, and LC3; and the EU-wide CCS-clinker pipeline compiled by previous studies [38].

Because project-level Environmental Product Declarations (EPDs) are not publicly available for the majority of pipeline projects, eligibility for each scenario is classified using technology type as a proxy for concrete GWP performance. This follows the logic that near-zero cement technologies fall within the highest-performing categories for concrete GWP. The classification rules are nested, so that supply eligible under a more demanding scenario is also eligible under the less demanding scenarios below it:

- **Ambitious (≤124 kg CO_2e/m^3)**: CCS-clinker, alkali-activated cements, and geopolymers, and clinker recycling only.
- **Moderate (≤175 kg CO_2e/m^3)**: the above, plus LC3 cements and high-substitution SCM-blended cements with at least 40% SCM.
- **Conservative (≤213 kg CO_2e/m^3)**: the above, plus any other SCM-blended Portland cement.

Figure 3-1. Overview on current, emerging and future SCMs [39].



[38] Clean Air Task Force, *Strengthening Lead Markets in the Industrial Accelerator Act*.

[39] Ruben Snellings, Prannoy Suraneni, and Jørgen Skibsted, 'Future and Emerging Supplementary Cementitious Materials', *Cement and Concrete Research*, 171 (2023), p. 107199, doi:10.1016/j.cemconres.2023.107199.

4. Results

4.1 Available low-carbon supply by 2030

Applying the classification rules set out in Section 3.3 to the pipeline yields, the following volumes of scenario-eligible cement supply expected to be operational in the EU by 2030:

Table 4-1. Scenario-eligible supply expected to be operational in the EU by 2030.

Low-carbon definition scenario	Eligible supply by 2030 (Mt)
Conservative	46.3
Moderate	43.2
Ambitious	18.6

For the conservative scenario, the 46.3 Mt breaks down into 11.6 Mt of directly named projects and 34.7 Mt from EU-wide aggregates. The moderate and ambitious totals, 43.2 Mt and 18.6 Mt respectively, reflect progressively tighter filtering of the same pipeline against the scenario classification rules. The composition of the total is detailed in Appendix 2.

The step-down from conservative to moderate, from 46.3 Mt to 43.2 Mt, reflects the exclusion of the residual EU-wide LC3 and recycled concrete fines aggregates that do not meet the moderate GWP threshold. The more substantial step-down from moderate to ambitious, from 43.2 Mt to 18.6 Mt, reflects the restriction to near-zero technologies, CCS-clinker, alkali-activated cements and geopolymers, and clinker recycling. **Even under the ambitious scenario, the eligible pipeline of 18.6 Mt is materially larger than the 2.3 Mt CCS-clinker pipeline used to inform the Commission's 5% quota proposal.**

4.2 Coverage against public procurement demand

The scenario-eligible supply figures are expressed as raw market coverage ratios against the 2030 public procurement demand for cement, using the two denominators established in Section 3.2: (i) the 20.77 Mt of public cement demand falling above the EU procurement thresholds; and (ii) the total 2030 public cement demand across all contracts, above and below the thresholds, estimated at approximately 49.8 Mt of cement, equivalent to approximately 183 million m³ or 440 Mt of concrete at central density. The two denominators are used deliberately: they set the upper and lower bounds, respectively, of the quota range derived in Section 4.3.

Table 4-2. Raw market coverage of scenario-eligible cement supply against 2030 public procurement demand.

Low-carbon definition scenario	Coverage against public procurement above threshold	Coverage against total public procurement
Conservative	223%	93%
Moderate	208%	87%
Ambitious	89%	37%

Under the conservative and moderate scenarios, scenario-eligible supply exceeds above-threshold public demand by more than a factor of two, at 223% and 208%, respectively. When calculated against the total public procurement market, it still covers a substantial share, at 93% and 87%, respectively. Under the **ambitious** scenario, supply is sufficient to cover approximately nine-tenths of above-threshold demand, at 89%, but only around one-third of the entire public procurement market, at 37%. This reflects the fact that the pipeline of near-zero technologies, including CCS-clinker, alkali-activated cements, geopolymers, and clinker recycling, is materially smaller than the pipeline of SCM-based routes eligible under the less stringent scenarios.

4.3 Proposed quota range per scenario

Translating raw market coverage into a policy-relevant quota requires the application of a policy-adjustment factor, as set out in Chapter 2. This factor is set at 50% and reflects two considerations: (i) the risk that not all announced pipeline projects will materialise on schedule; and (ii) the need to avoid a market dynamic in which the entirety of low-carbon supply is reoriented towards public procurement at the expense of private demand. Such a dynamic would undermine the lead-market function that the quota is intended to fulfil. Applying this factor to the two coverage denominators yields, for each scenario, a quota range bounded by coverage against all public procurement, which provides the lower and more prudent bound, and coverage against above-threshold public procurement only, which provides the upper bound aligned with the IAA scope. The midpoint of the two bounds is presented as the credible quota for each scenario.

Table 4-3. Proposed quota range per low-carbon definition scenario, following application of the 50% policy-adjustment factor

Low-carbon definition scenario	Lower bound	Midpoint (credible quota)	Upper bound
Conservative	47%	79%	112%
Moderate	43%	74%	104%
Ambitious	19%	32%	45%

The upper bounds of the conservative and moderate scenarios still exceed 100%, even after the policy adjustment, indicating that scenario-eligible supply remains higher than the 20.77 Mt above-threshold anchor after applying the 50% adjustment factor. These values are retained in the table for transparency, while the midpoint provides the reference for a quota that must remain operationally deliverable.

5. Conclusions

The evidence assembled in this brief indicates that a credible low-carbon concrete quota can be set between 32% and 79%, based on the low-carbon concrete supply expected to be operational in the EU by 2030. Even under the ambitious scenario, which is limited to CCS-clinker, alkali-activated cements, geopolymers and clinker recycling, the eligible pipeline reaches **18.6 Mt of cement.** This is materially above the 2.3 Mt CCS-only pipeline that underpinned the Commission's 5% proposal. Under the conservative and moderate scenarios, eligible supply exceeds public procurement demand above the EU thresholds by more than a factor of two.

Each of the three suggested quotas is materially above the Commission's 5% and is anchored on a low-carbon definition already used by market actors: ConcreteZero for the conservative scenario and the First Movers Coalition for the ambitious scenario, with the moderate scenario as the midpoint between the two. The analysis therefore supports raising the IAA quota well beyond 5%, with the specific level depending on the ambition of the underlying definition of low-carbon concrete.

Market and policy implications for setting a credible quota

Depending on the level of ambition pursued, the quota can be calibrated to obtain different market outcomes. A less stringent definition would permit a higher quota and accelerate the mainstream adoption of already deployable low-carbon concrete technologies. This would broaden the market for low-carbon concrete but provide a weaker demand signal for the technologies needed for deeper decarbonisation. Conversely, a more ambitious definition reduces the volume currently able to qualify but creates a stronger lead market for near-zero and breakthrough technologies. Each scenario therefore represents a coherent policy design: the **conservative** scenario prioitises the first function, accelerating deployment of already deployable low-carbon technologies, while the **ambitious** scenario weights the second, stimulating demand for near-zero and breakthrough technologies. For the IAA to perform both functions – accelerating deployment today while stimulating demand for deeper industrial innovation – the **moderate** scenario can be considered as the appropriate policy starting point.

When it comes to the green premium, the available cost evidence does not justify retaining the quota at 5%. Several technology pathways can deliver substantial emissions reductions with limited or negligible additional production costs, as illustrated by various studies and the Commission's own Impact Assessment.

Lastly, setting the quota should be set jointly with the low-carbon definition it references, rather than in isolation. A higher quota cannot provide a predictable investment signal unless producers and procurers know sufficiently early which products will qualify. The deferral of emissions calculation methodologies and performance classes to future delegated acts under the Construction Products Regulation and the Ecodesign for Sustainable Products Regulation should be done with a clear mandate for these definitions to be operational ahead of the 2029, ensuring that the quota can be implemented effectively.

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Appendix 1.

Modelling logic and limitations

This appendix sets out the technical detail underpinning the scenario modelling presented in the main report, complementing the summarised methodological account in Chapter 2. It covers the analytical logic linking scenario-eligible supply to a credible quota for each scenario, and the three principal limitations that frame the interpretation of the results.

Modelling logic

The analytical approach maps the expected 2030 supply of low-carbon cement and SCMs in the EU against the projected public procurement demand falling within the scope of the IAA, and derives from this comparison a credible quota for each of three ambition scenarios. The modelling operates at **cement level**, even though the IAA quota itself is set at concrete and mortar volume. This choice reflects three considerations: (i) both relevant data and the project pipeline compiled for this study are primarily expressed in tonnes of cement rather than cubic metres of concrete; (ii) cement is by far the dominant driver of concrete's embodied emissions, accounting for approximately 95% of concrete's GWP [40]; and (iii) cement and concrete markets are assumed to evolve in parallel, so that shifts in low-carbon cement availability translate proportionally into low-carbon concrete availability.

The derivation proceeds in two steps. In the first step, a raw-market coverage ratio is calculated for each scenario as the volume of scenario-eligible cement supply divided by the volume of public cement demand above the public procurement IAA thresholds. In the second step, the raw market coverage is translated into a credible quota range per scenario by applying a policy-adjustment factor that reflects two considerations: the risk that not all announced projects will materialise on schedule, and the need to avoid a market dynamic in which the entirety of low-carbon supply is reoriented towards public procurement at the expense of private demand. This methodology adapts the industry-commitment logic, which based supply on FID project pipelines used by the Commission in its Impact Assessment [41] to derive the 5% low-carbon concrete target. It applies that logic specifically to the public procurement volume to determine feasible coverage.

Methodological limitations

Three principal limitations should be borne in mind when interpreting the results:

- **First, SCM feedstock is counted on a cement-equivalent basis**: one tonne of SCM entering the pool is treated as one tonne of enabled cement, whereas a more rigorous approach would apply the scenario SCM ratios to convert feedstock into the blended cement volume it can support.
- **Second, the pipeline is not exhaustive**: several announced projects lack a stated production volume and have been conservatively excluded from the totals, so that the eligible supply figures reported here should be read as a lower bound rather than a ceiling.
- **Third, eligibility is classified by technology type rather than by project-specific EPDs**. Each pipeline project is assigned to a scenario band based on its technology type, such as CCS-clinker, alkali-activated cement, LC3, or SCM-blended Portland cement. The mapping between technology category and scenario band follows a qualitative logic that classifies near-zero cement technologies, including CCS-clinker, alkali-activated cements, geopolymers, and clinker recycling, within the top approximately 20% of concrete performance [42]. Project-level variation around the class average is therefore expected: optimised LC3 or high-SCM mixes may meet stricter thresholds, while poorly optimised near-zero deployments may underperform. Eligible supply figures should accordingly be read as an order-of-magnitude range.

[40] EEB, *Cement It Better: Unlocking Low-Carbon Concrete in Europe*.

[41] European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110*.

[42] ECOS, *Towards a Meaningful Quota for Low-Carbon Concrete in the Industrial Accelerator Act*.

Appendix 2.
Scenario Modelling Overview

This appendix summarises the model used to map expected 2030 EU supply of low-carbon cement and SCMs against public procurement demand, and to derive three credible low-carbon concrete quotas for the IAA public procurement scope: conservative, moderate, and ambitious.

Scenario definition

The model operates at cement level because the pipeline is expressed in Mt of cement and cement is the dominant driver of concrete GWP. Quotas are nevertheless expressed as concrete and mortar volumes, assuming that cement and concrete markets evolve in parallel.

Clinker ratios are anchored in the Cement Europe 2030 target for the conservative scenario, DETOCS for the ambitious scenario, and the midpoint between them for the moderate scenario.

Table A2-1. Low-carbon definition scenario definitions

Low-carbon definition scenario	GWP threshold (kg CO_2e/m^3)	Reduction vs. baseline	Clinker	SCM	Gypsum	Eligible supply
Conservative	≤ 213	14.8%	74.0%	23.0%	3.0%	Any SCM-blended Portland cement + all Moderate/Ambitious supply
Moderate	≤ 175	30.0%	57.0%	40.0%	3.0%	LC3 + high-substitution SCM-blended (≥ 40% SCM) + Ambitious supply
Ambitious	≤ 124	50.4%	40.0%	57.0%	3.0%	CCS-clinker + AAC/geopolymer + clinker recycling only

Key input data

The model draws on a small set of anchoring parameters covering baseline concrete GWP, cement content, clinker ratio and the volume of public construction and its cement demand in 2030.

Table A2-2. Key input data

Variable	Value	Source
Baseline GWP concrete (C30/37, X0–X1)	250 kg CO_2e/m^3	90% of average across national industry benchmarks across EU top producers (various sources)
Cement content	272 kg/m^3 concrete	ERMCO, *Ready-Mixed Concrete Industry Statistics Year 2023* (2024)
Value of public construction above EU threshold	€189 bn	European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110* (2026)
Value of public construction (above + below threshold)	€453 bn	Wyns, Tomas, Harri Kalimo, and Gauri Amarsinh Khandekar, *Public Procurement of Steel and Cement for Construction. Assessing the Potential of Lead Markets for Green Steel and Cement.*, (Brussels), July 2024
Share of public construction above threshold	41.7%	Calculated with figures above.
Share of cement used for public construction	31.0%	Wyns, Tomas, Harri Kalimo, and Gauri Amarsinh Khandekar, *Public Procurement of Steel and Cement for Construction. Assessing the Potential of Lead Markets for Green Steel and Cement.*, (Brussels), July 2024

Variable	Value	Source
Cement used for public construction (2019)	47 Mt	Wyns, Tomas, Harri Kalimo, and Gauri Amarsinh Khandekar, *Public Procurement of Steel and Cement for Construction. Assessing the Potential of Lead Markets for Green Steel and Cement.*, (Brussels), July 2024
Total EU cement demand (all construction), 2030	160.7 Mt	European Commission, *COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT REPORT Accompanying the Document Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Establishing a Framework of Measures for the Acceleration of Industrial Capacity and Decarbonisation in Strategic Sectors and Amending Regulations (EU) 2018/1724, (EU) 2024/1735 and (EU) 2024/3110* (2026)
Public-sector cement demand 2030, above threshold	20.8 Mt	Calculated with figures above.
Corresponding public concrete demand above threshold	76.4 M m³ (≈ 183 Mt at 2,400 kg/m³)	Calculated with figures above.
Total public concrete demand (above + below threshold)	439.6 Mt	Calculated with figures above.

Supply pipeline

The eligible 2030 supply combines a bottom-up mapping of named EU low-carbon cement projects with EU-wide SCM aggregates and other publicly announced pipelines.

Table A2-3. Eligible 2030 supply (Mt cement)

Category	Ready by 2030 (Mt)
Conservative-eligible	46.3
Moderate-eligible	43.2
Ambitious-eligible	18.6

Market coverage of eligible supply

The eligible supply is tested against three progressively narrower reference markets: total EU cement demand, all EU public-procurement cement demand, both above and below the EU threshold, and the IAA scope of above-threshold public procurement only. Ratios above 100% mean that the pipeline exceeds the relevant market and leaves surplus for the private sector.

Under the conservative and moderate definitions, the pipeline is more than double the IAA above-threshold market and would still cover 87–93% of the entire EU public-procurement cement market. Only the ambitious scenario, covering CCS-clinker, alkali-activated cements and geopolymers, and clinker recycling, falls short of the above-threshold market on its own.

Table A2-4. Coverage of eligible 2030 supply against reference markets (cement basis)

Reference market (2030)	Volume (Mt cement)	Conservative (46.34 Mt)	Moderate (43.19 Mt)	Ambitious (18.55 Mt)
Total EU cement demand, all construction	160.7	28.8%	26.9%	11.5%
All EU public-procurement cement (above + below threshold)	49.8	93.0%	86.7%	37.2%
EU public-procurement cement, above threshold only (IAA scope)	20.8	223.1%	207.9%	89.3%

Quota calculation

Quotas apply a 50% correction factor to raw coverage, reflecting expected pipeline attrition and the need to avoid redirecting all low-carbon supply to public projects. The IAA is intended to create a lead market, not to prevent the private sector from accessing low-carbon supply.

Table A2-5. Credible low-carbon concrete quotas (2030, IAA scope)

Low-carbon definition scenario	Lower bound[a]	Average quota	Upper bound[b]
Conservative	46.5%	79.0%	111.5%
Moderate	43.4%	73.7%	104.0%
Ambitious	18.6%	31.6%	44.7%

[a] Coverage against all EU public procurement (above + below threshold).
[b] Coverage against above-threshold public procurement only (the IAA scope).