



UK Government

# A policy framework to grow the market for low carbon industrial products

Summary of consultation responses and  
government response



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# Introduction

## About the consultation

**The Department for Energy Security and Net Zero (DESNZ) consulted on a framework of policies to grow the market for low carbon industrial products:**

- **An embodied emissions reporting framework (EERF):** Aims to help producers and buyers of industrial products measure, report and verify emissions for eligible products. Initial proposals include: 1) carbon accounting guidance and 2) an IT system with a centralised database to streamline, standardise and reduce the cost of reporting.
- **Product classifications:** Aims to define what counts as low carbon steel, cement, and concrete by categorising products according to their embodied emissions (e.g. A-G ratings). This would enable clearer comparisons of climate impact and could support green procurement such as organisation-level commitments to purchase specific tiers of low carbon products (e.g., Class D steel by 2030). All classifications rely on robust embodied emissions data.
- **Green procurement for low carbon industrial products:** Aims to encourage organisations to consider the embodied emissions of products purchased in their procurement processes. This is proposed through government-led guidance, which could initially outline best practice recommendations. Best practice guidance could be expanded to help organisations determine which products should (and should not) be procured.
- **Longer term policy options:** Explores other policies that could be introduced in the longer term to support or complement those above, including product ecolabelling and mandatory product standards (MPS). The government is also considering whether the policy framework could be expanded to other sectors beyond steel, cement, and concrete, and whether any other policies should be explored, such as buyers' alliances.

This consultation built on previous government publications exploring how to grow the market for low carbon industrial products, notably the 2023 consultation 'Addressing carbon leakage risk to support decarbonisation'<sup>1</sup> ('the previous consultation') published by DESNZ and His Majesty's Treasury.

It also built on wider HMG strategies and publications including the 2021 Industrial Decarbonisation Strategy<sup>2</sup>, which focuses on creating a competitive, low carbon industrial base, and the 2025 consultation on the Steel Strategy<sup>3</sup> which aims to secure a greener future for steelmaking. Additionally, the consultation considered alignment with policies including the EU Construction Products Regulations (EU CPR 2024), the UK Construction Products Reform

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<sup>1</sup> UK Government, 2023, '[Addressing carbon leakage risk to support decarbonisation](#)'.

<sup>2</sup> UK Government, 2021, '[Industrial decarbonisation strategy](#)'

<sup>3</sup> UK Government, 2025, '[The steel strategy: the plan for steel](#)'

(CPR) proposals<sup>4</sup> and the Industrial Deep Decarbonisation Initiative (IDDI)<sup>5</sup> to help the UK meet the commitments to the IDDI's Green Procurement Pledge it made at COP28.

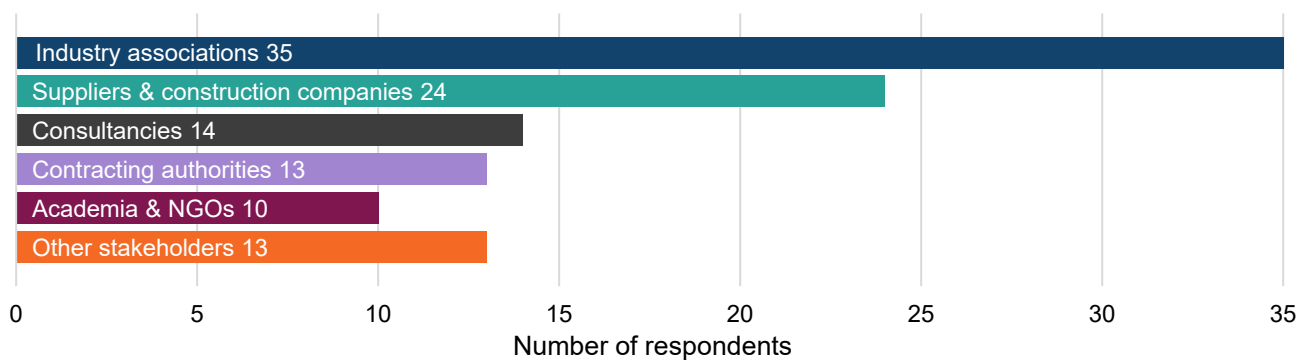
## Responses to the consultation

**The consultation ran for 14 weeks from 23 June to 29 September 2025 and received 109 valid responses<sup>6</sup> over email and through Citizen Space, an online response tool.**

The government is grateful to stakeholders for taking the time to engage with the consultation. Respondents were from a wide range of sectors, from both the UK and internationally, and were grouped into categories to support analysis by sector and by role.<sup>7</sup> These groupings were used to analyse data by respondent group where useful.

The largest group of respondents by role were industry associations with 35 respondents, followed by suppliers and construction companies with 24 respondents. The most common respondent sector was construction, with 34 respondents. Figure 1 and Figure 2 show the full breakdown of respondents by role and sector.

**Figure 1. Number of consultation respondents by role.**



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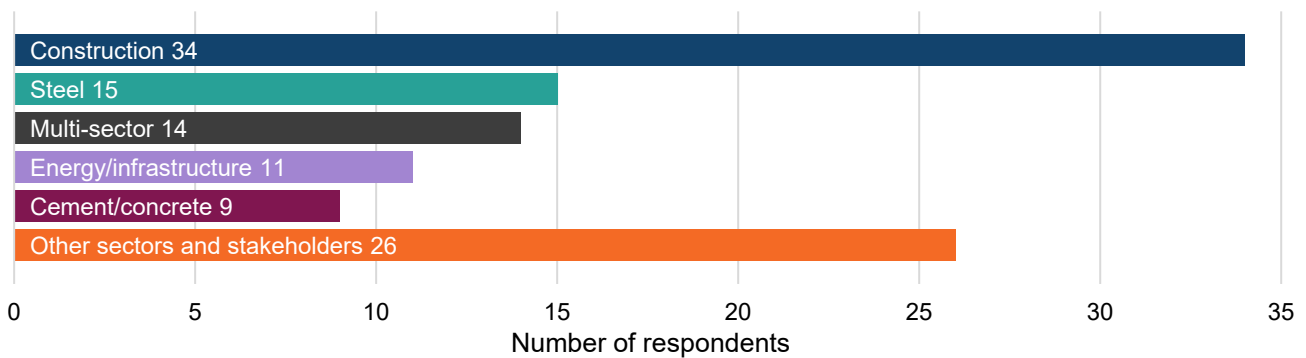
<sup>4</sup> UK Government, 2026, [‘Construction Products Reform White Paper’](#)

<sup>5</sup> The United Nations Industrial Development Organisation, [‘IDDI’](#)

<sup>6</sup> In total, 111 responses were received. Two duplicate submissions were excluded following confirmation with respondents, resulting in 109 valid responses included in the analysis.

<sup>7</sup> Sectors: Cement/Concrete; Construction; Energy/Infrastructure; Steel; Multi-sector; Other sectors and stakeholders. Roles: Academia and non-governmental organisations (NGOs); Consultancies; Contracting authorities; Industry associations; Suppliers and construction companies; Other stakeholders.

**Figure 2. Number of consultation respondents by sector.**



The consultation contained 231 questions (including sub-questions): 140 closed questions and 91 open-ended questions. Not all respondents answered every question. As such, the number of respondents for each policy topic is indicated in each chapter. Submissions from respondents identified as having a conflict of interest were removed from the final database.<sup>8</sup>

Closed-ended questions included single choice, multiple choice, and Likert scales questions.<sup>9</sup> Responses were analysed using descriptive analysis and, where helpful, graphs were used to present these results visually. Where “I don’t know” was offered as a response option, these responses were excluded from the analysis unless they accounted for more than 10% of responses to a question, in which case they were reported separately.

The responses to open-ended questions were analysed to identify key themes and to understand the reasoning behind respondent views. Qualitative analysis was conducted using thematic analysis and an inductive approach, with themes generated from the data rather than pre-defined in advance. When referring to more than one theme, and to ensure consistency in how qualitative findings are presented, the frequency with which each theme appeared in responses to a question is reported using defined banded ranges rather than exact percentages.<sup>10</sup>

<sup>8</sup> This was applied to owners of “product classifications” and their answers to the questions on the most suitable “product classifications” (i.e., questions 5.7, 5.16, 5.17, 5.24 and 5.25). This approach was taken to avoid disproportionate influence from classification owners, as levels of engagement varied, with some organisations submitting multiple responses while others did not respond.

<sup>9</sup> A *Likert* scale question is a closed-ended question that asks respondents to indicate the strength of their agreement, opinion, or attitude using an ordered response scale (for example, from “strongly agree” to “strongly disagree”).

<sup>10</sup> When reporting the qualitative analysis of the open-ended responses, where 81–100% of respondents to a question expressed a similar view, this is described as ‘most respondents’. Where 61–80% shared a view, this is referred to as ‘majority of respondents’, and 53–60% as ‘just over half of respondents’. Response levels within 48–52% are described as ‘around half of respondents’, while 41–47% are reported as ‘just under half of respondents’. Where 21–40% of respondents raised a point, this is described as ‘a minority of respondents’, and where 1–20% did so, this is referred to as ‘a small proportion of respondents’.

## Summary of decisions, broader considerations and next steps

### Summary of decisions

The government has carefully considered stakeholder responses and decided the below:

- Policy options for the framework will be assessed against three primary assessment criteria: 1) “ensures measurement is robust and comprehensive”, 2) “incentivises decarbonisation” and 3) “enables product comparison”. We will use 4) “operationally ready” and 5) “minimises costs” as secondary criteria, to differentiate between policy options that perform similarly against the primary criteria (Chapter 1).
- Regarding environmental impacts, government will proceed with focusing initially on Global Warming Potential (GWP) (expressed in carbon dioxide equivalent), with a clear commitment to expand the scope to additional environmental impacts over time (Chapter 1).
- In the Construction Products Reform (CPR) White Paper<sup>11</sup> published in February 2026, the government reaffirmed its commitment to system wide reform of the construction products regime and its approach to seeking consistency with revised EU Construction Products Reform (EU-CPR) where it meets government’s objectives for safety, innovation and growth.
- The government will continue to explore development of digital solutions to enable producers to report product-level data and buyers to compare products and make informed purchasing decisions. Government will not build a database from scratch but will continue to explore solutions that build on existing databases (Chapter 4).
- The government will not pursue a cement product classification (Chapter 5).
- The government will not explore additional concrete product classifications (Chapter 5).
- Regarding steel product classifications, the government will no longer consider the U.S. Environmental Protection Agency’s (EPA) approach due to minimal support for the model. However, we will consider whether the CARES Sustainable Constructional Steels (SCS) certification scheme is suitable, in addition to any steel classifications established under the EU’s Ecodesign for Sustainable Products Regulation (ESPR) (Chapter 5).
- The government intends to publish guidance as two separate documents: one for buyers and one for producers. Both guidance documents will incorporate the EERF considerations outlined in Chapters 2 and 3 including a focus on life cycle assessment (LCA) based approaches to reporting, confirmation of product classification models for steel and concrete (Chapter 5), and the procurement considerations discussed in Chapter 6. Guidance will initially be introduced on a voluntary basis (Chapter 6).
- Since publication of the consultation, DESNZ has worked with the Department for Environment, Food and Rural Affairs (Defra) to incorporate voluntary good practice low

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<sup>11</sup> UK Government 2026 [Construction Products Reform White Paper - GOV.UK](#)

carbon procurement requirements into planned updates to the Government Buying Standards for Buildings (Chapter 6).

- The government will prioritise the development of the initial policy framework, and in the future may continue to explore the longer term policies (Chapter 7).

## Broader considerations

The government has carefully considered the views submitted through this consultation, noting several cross-cutting themes, alongside emerging evidence and analysis developed since publication, which together provide important context for future policy decisions. These insights, set against wider policy developments, will inform the next stages of policy design, with particular attention given to issues raised by respondents and their implications for delivery and impact.

## Key cross-cutting themes and considerations to inform next steps

**Unintended consequences:** While the government sees clear benefits in the proposed low carbon products policy framework, it recognises the risk of unintended consequences, including potential impacts on domestic producers, administrative burden for businesses and disincentivising wider decarbonisation considerations such as resource efficiency. The decisions taken at this stage reflect a proportionate approach, with measures designed to minimise adverse impacts where possible. A voluntary approach supports a balanced and gradual transition, helping to manage risks while enabling progress towards decarbonisation and resource efficiency goals. This will allow monitoring and evaluation to be planned and implemented as the policy is delivered and iterated over time, where evidence will be used to assess effectiveness and inform continuous improvement. More complex policy decisions, which may carry a greater risk of unintended consequences, have therefore not been taken forward at this stage and will be subject to further policy design and stakeholder input to ensure that potential risks can be appropriately managed.

**Domestic competitiveness:** The government recognises that existing green procurement requirements for steel, cement and concrete products, some of which are based on product classifications, are already being applied across the construction sector. Responses to the consultation suggest that due to the lack of consistency and clarity in the market on which classification(s) are most suitable, there is an increasing risk that current practices, where requirements are too stringent or inconsistent, could disadvantage domestic supply chains. This includes encouraging increased imports and not adequately supporting the decarbonisation of these sectors. The government understands its role in providing clear and consistent market signals to address these issues. We will therefore look to endorse consistent and appropriate definitions of low carbon steel and concrete in forthcoming guidance that will both incentivise decarbonisation and avoid unintended negative impacts for domestic supply chains.

**The relationship between the EERF and product classifications:** The EERF (Chapters 2 and 3) and product classifications (Chapter 5) are designed to function as complementary, foundational policies. Both require consistent emissions measurement approaches, and some product classification options rely on Environmental Product Declarations (EPDs) or product carbon footprints (PCFs) which will form the initial focus of the EERF elements of the guidance. These policies are being designed to ensure they complement each other and avoid duplication or contradiction. Together, the EERF and product classifications will support transparent and robust purchasing decisions by improving the consistency of emissions reporting and establishing clear definitions of low carbon products in forthcoming guidance for buyers and producers. This guidance will be the primary mechanism through which these policies will translate improved data and product classifications into credible demand signals to grow the market for low carbon industrial products.

**Minimising administrative burden:** The government recognises that the administrative burden of emissions reporting is a concern held by many businesses. DESNZ is working closely with other government departments and monitoring incoming EU regulations which impact exporters of construction products to ensure coordination between our policies on emissions reporting and will continue to explore opportunities for streamlining and interoperability.

Businesses have said they want clarity, compatibility and consistency so that whole life carbon (WLC) assessments are based on harmonised embodied emissions data. WLC assessments support decision making during the design, procurement, construction and use phases of a product, allowing for the reduction of carbon impacts across all life cycle stages. The EERF can help improve the standardisation, robustness and interoperability of product-level emissions data that is required for WLC, and DESNZ work on resource efficiency.

**Rigorous monitoring and evaluation (M&E):** As this framework is brand new policy, proportionate M&E will be planned and implemented to assess its effectiveness as it is delivered and iterated over time, with findings used to inform continuous improvement and future refinements. As part of this, a theory of change will be developed to clarify how the policy is expected to deliver its intended outcomes and to guide evaluation activity over time. As policy evolves and potentially becomes more stringent, process evaluation can help to assess delivery and implementation, including administrative and reporting burdens, usability for different stakeholders, and alignment with international standards and approaches. Impact evaluation helps understand the extent to which the policy contributes to improving the quality, consistency and availability of data to support low carbon product markets, and how it enhances comparability between products and supports lower carbon purchasing decisions.

## Alignment with wider policies and strategies

### Carbon leakage and the UK CBAM

Carbon leakage is the movement of production and the associated greenhouse gas emissions from one country to another because of differences in climate policy ambition or carbon pricing.

The UK ETS, the UK's main carbon pricing policy instrument, addresses carbon leakage by allocating free allowances. Starting in 2027, the UK CBAM will introduce a carbon price on certain imported goods. This will ensure that overseas carbon intensive products face a carbon price comparable to that applied to UK produced goods, preventing possible carbon leakage and supporting global emissions reductions.

The government remains committed to keeping under review how to maximise alignment and explore opportunities to streamline reporting between the EERF and other monitoring, reporting, and verification (MRV) systems, including UK CBAM, where possible and desirable in the future. To avoid double reporting, the government believes a mandatory EERF should only be explored once further work has been done on the interoperability between the CBAM and EERF. Efforts are ongoing across the government to align these frameworks.

### **Research project on data quality of life cycle assessments of steel, cement and concrete products**

To build the evidence base to inform the design of the EERF, a research project was commissioned from Frazer Nash Consultancy Ltd on the data quality of LCAs of steel, cement and concrete products (the 'data quality research project')<sup>12</sup>. A key question this project was intended to help answer is whether the EERF elements of the guidance should focus on the LCA methodological approach or installation-level data, such as from the UK Emissions Trading Scheme (UK ETS) and therefore seek to align with the Carbon Border Adjustment Mechanism (CBAM) approach to calculating product-level emissions. Responses to the previous consultation<sup>13</sup> had been evenly split between these options, prompting refinement of the proposal through stakeholder engagement and this research.

This research compared EU CBAM<sup>14</sup> and EPD methodologies and found that the EU CBAM methodology generates results typically 8-15% lower than EPD for the same product. This is because EU CBAM focuses on manufacturing emissions and key raw material supply precursors, whilst EPD cover additional emissions relating to a product's production, distribution and storage, use and end of life providing a broader assessment. The research concluded that:

*'The narrower scope of EU CBAM makes it effective for regulatory compliance and trade, where the priority is to capture the largest emissions sources and establish a carbon price signal. EPD, in contrast, provide a more comprehensive life cycle perspective, which is valuable for product-level benchmarking, procurement decisions, and tracking decarbonisation over time.'*<sup>15</sup>

Government has taken this research into account alongside the responses received to Questions 2.9 and 2.10 and will focus on LCA-based reporting approaches to develop the guidance.

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<sup>12</sup> UK Government, 2026, [Data quality of life cycle assessments of steel, cement and concrete products](#)

<sup>13</sup> UK Government, 2023, [Addressing carbon leakage risk to support decarbonisation](#)

<sup>14</sup> At the time of the fieldwork for this research, the UK CBAM methodology had not yet been published

<sup>15</sup> UK Government, 2026, [Data quality of life cycle assessments of steel, cement and concrete products](#)

The research was also used to inform policy decisions on the possibility and desirability of streamlining between the EERF and other monitoring, reporting, and verification (MRV) systems, including UK and EU CBAM, to help reduce administrative burden. The research found that:

*‘Both EPDs and EU CBAM draw on similar datasets, with some repeating data points. Due to this overlap, if a producer has already prepared an EU CBAM declaration, a large proportion of emissions data needed for the EPD is already covered and available. This can reduce the time and cost for producing an EPD by avoiding any duplication in data collection and repurposing EU CBAM data.’<sup>16</sup>*

The report suggested that further efficiency gains could be achieved by an EERF that harmonises data structures and methodological expectations. It also noted that additional data is required for EPDs and these extra data points can be relatively resource intensive to collect. Future low carbon product market policy development will continue to explore possible alignment and opportunities to reduce administrative burden for manufacturers preparing, or considering, CBAM declarations and EPDs. This work will take account of the range of views received in response to Question 2.10 on maximising the use of existing data.

### **EERF digital discovery project**

To explore further the case for the EERF IT system proposals outlined in the consultation, a digital discovery project was commissioned from Triad Group Plc. This project proposed to explore, define, and validate the user needs, technical options, and delivery models for a digital platform that enables the publication, access and use of product level embodied emissions data in line with proposed EERF elements of the guidance.

The discovery project gathered evidence from structured user interviews across multiple sectors and roles, including manufacturers, designers, academics, and buyers, mostly in industries related to construction. It also included a technical and market analysis of existing tools and platforms, alongside an exploration of ancillary tools that could encourage data submission and support wider system adoption.

Findings from the project align with the feedback received via the consultation, and include that:

- The desire to reduce embodied carbon is there, but the process is too complicated, time consuming and expensive.
- Embodied emission data is scattered across multiple platforms with inconsistent formats and limited comparability. Data collection is one of the biggest pain points for users, often taking two to six months, with significant concerns around quality and verification. This illustrates the need for a trusted, consistent and quality-controlled dataset with clear provenance.

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<sup>16</sup> Ibid.

- Although current digital solutions do not fully meet UK user needs and policy objectives stakeholders consider that enhancing or working with established solutions would be more impactful and feasible than creating a new EPD database or tools from scratch.
- The importance of addressing administrative burden, particularly for SMEs, and interoperability with systems used in other jurisdictions was also emphasised.

The report made several recommendations, including:

- Government should provide clear, UK wide guidance that aims to build consistency in how EPDs are created, interpreted and used, whilst supporting manufacturers and users.
- Government should commission and oversee the development of a UK focused background life cycle inventory (LCI) dataset, likely derived from existing sources, to create a consistent, trusted dataset that eliminates fragmentation across industry carbon-factor sources
- Government should establish a comprehensive understanding of the UK's current and future capacity to deliver high quality EPD verification, understand the capacity problems faced by industry, and provide support to wider industry with guidance and consistency in verification.

Following the aforementioned steps, the government can then consider building an EERF portal or integration layer that can act as a secure, high-performance entry point to discover, access, and manage EPD data aggregated from multiple sources and formats.

### **Digital Product Passports, Construction Products Regulations and Reforms and ESPR**

The government has acknowledged the revised EU CPR 2024, the Ecodesign for Sustainable Products Regulation (ESPR) and the introduction of Digital Product Passports (DPPs) by the EU. The revised EU-CPR introduces new environmental reporting requirements for construction products including steel, cement and concrete exported to the EU. Under the revised EU CPR, harmonised standards for construction products will gradually cover 19 environmental essential characteristics, such as climate change effects and land-use impacts, across a product's whole life cycle. The overall legislative framework has been adopted and requirements will come into force as technical standards are then developed, before expanding further in 2030 and 2032 (see Annex II of the revised EU-CPR for more details).

Following MHCLG's Construction Products Reform Green Paper in February 2025<sup>17</sup>, which reaffirmed the government's commitment to system wide reform of the construction products regime, the Construction Products Reform White Paper<sup>18</sup> was published in February 2026 (the consultation ran until 20 May 2026). The white paper confirms consistency with the revised EU Construction Product Regulations where this meets reform objectives. This will aid compliance and reduce administrative burdens on those exporting to the EU, whilst also supporting the sector in enhancing sustainability practices. The proposed best practice procurement guidance will be designed to align with these developments. The EERF aspects of the planned guidance

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<sup>17</sup> UK Government, [Construction Products Reform Green Paper](#), 2025

<sup>18</sup> UK Government, [Construction Products Reform White Paper](#), 2026

could help producers meet EU CPR requirements and make the resulting information more useful for buyers, subject to further policy development.

DESNZ and MHCLG will continue to work together to ensure that the EERF and the MHCLG's CPR proposals are complementary.

### **Resource efficiency and circular economy**

Circular economy and resource efficiency approaches can reduce emissions linked to primary material production by extending product lifetimes and keeping materials and components in use, supporting industrial decarbonisation. A WLC perspective ensures these benefits are reflected in purchasing, design and delivery decisions. The policies set out in this response, including the EERF and product classifications, will provide consistent and comparable product-level data that enables buyers and producers to assess options on a like-for-like basis and factor durability, lifetime and circular routes (such as reuse, repair, repurposing and remanufacturing) into procurement and design choices. Together, these foundational policies will help ensure that circular decision making aligns with net zero objectives. Resource efficiency considerations will also be factored into the development of the green procurement guidance.

### **Advance Market Commitments (AMCs)**

AMCs are agreements in which procurers commit in advance to buy innovative products that meet specified technical, commercial and verification criteria, creating a credible demand signal that accelerates development and scale up. The UK AMC for next generation low carbon concrete is now underway, launched by Innovate UK (UKRI) in November 2025. The programme provides a platform for innovators, investors and buyers to form strategic partnerships, helping to generate early demand, unlock investment and shorten the time to market for lower carbon concretes.

The AMC programme complements the policy framework set out in this response. It can use concrete product classifications to set clear emissions thresholds and be integrated into product-level green procurement, increasing buyer confidence and giving producers a clearer route to scale. In doing so, AMCs reinforce our objective to overcome information failures and grow demand for lower carbon materials, and support delivery of the UK's IDDI Green Public Procurement (GPP) pledge levels, including purchasing low emission cement and concrete from 2030.

### **Industrial Decarbonisation**

The government will bring forward a clear plan for industrial decarbonisation in due course. This plan will set the strategic direction for our approach to working with industry towards a competitive and low carbon industrial base in the UK, ensuring growth opportunities are captured in tandem with emissions reductions. The plan will set out the latest evidence for industrial decarbonisation, including the significantly increased role for electrification.

### **Steel Strategy**

The Steel Strategy<sup>19</sup> was published on 19 March 2026 and sets out a clear vision for the future of the steel sector in the UK. The strategy aims to stabilise and rebuild our existing sector, ensuring the competitiveness and viability of UK steelmaking to sustain 40-50% of domestic demand being met by domestic production. The government will work to ensure alignment between the strategy and the endorsed steel product classification model(s) in the green procurement guidance.

### **EU Industrial Accelerator Act**

The government is aware of the proposed EU Industrial Accelerator Act and will continue to monitor international developments relevant to the low carbon products policy framework.

### **Carbon Capture Use and Storage (CCUS) and hydrogen**

These are priority sectors for the government and development of CCUS and hydrogen projects provides opportunities for decarbonising the supply of low carbon construction materials such as steel, cement and concrete in the UK. We will continue to keep under review how to ensure alignment with the development of CCUS and hydrogen policies while we develop and publish procurement and reporting guidance.

### **Timber in Construction Roadmap**

Decarbonising construction is a complex challenge, and reaching the UK's net zero goals will require innovation and collaboration across all material sectors. Timber is a sustainable, low carbon building material that locks away carbon long term and scaling timber use could deliver substantial carbon savings nationally. The Timber in Construction Roadmap<sup>20</sup> aims to increase the safe and sustainable use of timber in construction to support the UK's transition to a zero-waste, low carbon economy. The Roadmap was relaunched in February 2025 and sets out how we can increase the use of timber in construction by: prioritising the improvement of Environmental Product Declarations (EPDs), promoting best practice through research and guidance, and advancing a circular economy by encouraging the reuse and recovery of timber. It also focuses on developing sector-specific skills and careers, integrating timber into early-stage project design, and supporting productive planting and woodland management to meet rising demand. By aligning efforts across government and industry, the roadmap underpins the wider transition to sustainable construction as well as resilient forestry.

### **Next steps**

The government intends to publish buyer and producer guidance in 2027. For some policies, such as the EERF IT system, many of the EERF methodological issues discussed in Chapter 3 and final decisions on product classifications, additional internal analysis and stakeholder input is needed before a decision is reached.

Officials will continue to engage with a broad range of stakeholders, including industry, academia, think tanks and other interested parties, through targeted working groups, bilateral

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<sup>19</sup> UK Government, 2026, '[Steel strategy](#)'

<sup>20</sup> UK Government, 2025, '[Timber in Construction Roadmap](#)'

discussions and ongoing dialogue. The government will also maintain its engagement with international partners, drawing on global best practice and exploring alignment with international frameworks and initiatives, including through continued participation in relevant international fora.

The government will continue to explore development of digital solutions to enable producers to report product-level data and buyers to compare products and make informed purchasing decisions. We will not pursue building a database from scratch but will continue to explore solutions that build on existing databases.

# Chapter 1: Cross-cutting considerations

## Chapter overview

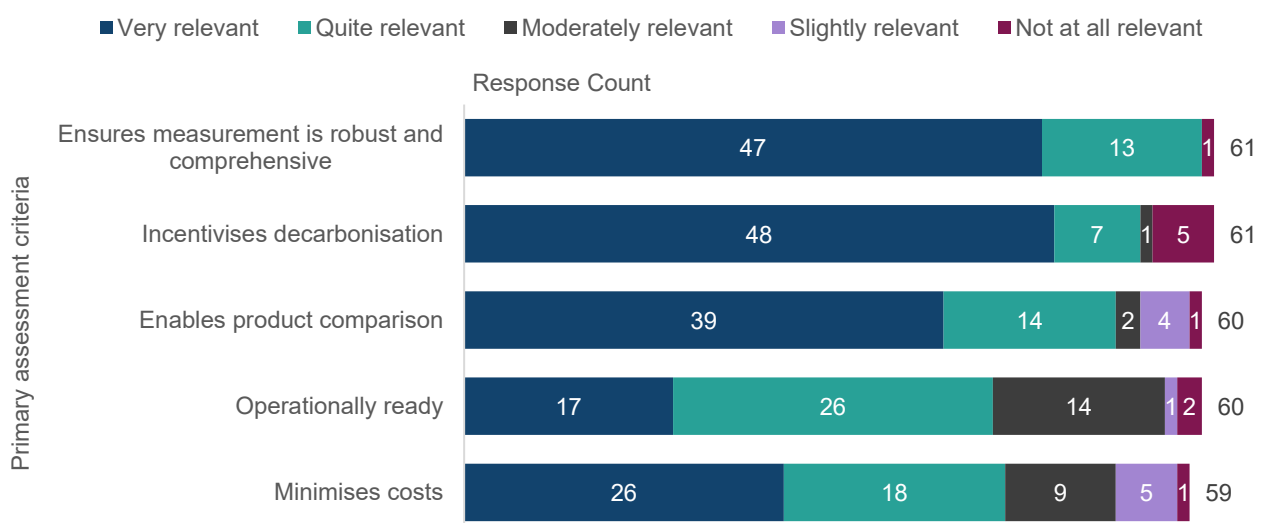
This chapter set out the rationale for selecting steel, cement and concrete as the initial sectors in scope for low carbon product market policies. It outlined proposed assessment criteria to serve as guiding principles for reviewing policy options, including incentivising decarbonisation, enabling product comparison, ensuring robust measurement, supporting operational readiness and minimising burdens. This chapter also sought views on whether government should consider wider environmental impacts beyond GWP, such as water use, and concluded by asking respondents about the likely effects of these policies and current industry practices.

### Policy assessment, environmental scope and market impacts (Questions 1.1 to 1.3)

**Question 1.1 Please indicate how relevant you think each primary assessment criterion is and explain your reasoning as well as any additional views, including whether there are other criteria not listed that should be included when considering policy options.**

There were between 59 and 61 responses to the Likert scale sub-questions. The 3 criteria most commonly identified as ‘very’ or ‘quite’ relevant were ‘Ensures measurement is robust and comprehensive’ (60 respondents), ‘Incentivises decarbonisation’ (55 respondents) and ‘Enables product comparison’ (53 respondents) (see Figure 3).

**Figure 3. Aggregated response count to Question 1.1, ‘How relevant you think each primary assessment criterion is?’ (select one for each criterion).**



There were 65 responses to the open-text question. Respondents noted that robust and comprehensive measurement is essential for credibility, consistency and trust in carbon accounting. Under the theme of incentivises decarbonisation, respondents highlighted that strong market signals, rewarding improvement and encouraging investment in low carbon

solutions can help drive emissions reductions across carbon intensive sectors. Product comparison was noted as key to helping buyers make informed low carbon choices by enabling clear, consistent and verifiable comparisons.

Respondents also highlighted additional important criteria. A small proportion of respondents emphasised the need to align with the wider low carbon industrial policy landscape, including international frameworks such as the EU CBAM. A similar proportion stressed the need to support innovation, noting that any framework should be proportionate and avoid unintentionally restricting novel low carbon products or technologies.

**Question 1.2 Which environmental impacts should the government consider at this stage in its policies? Please explain your reasoning.**

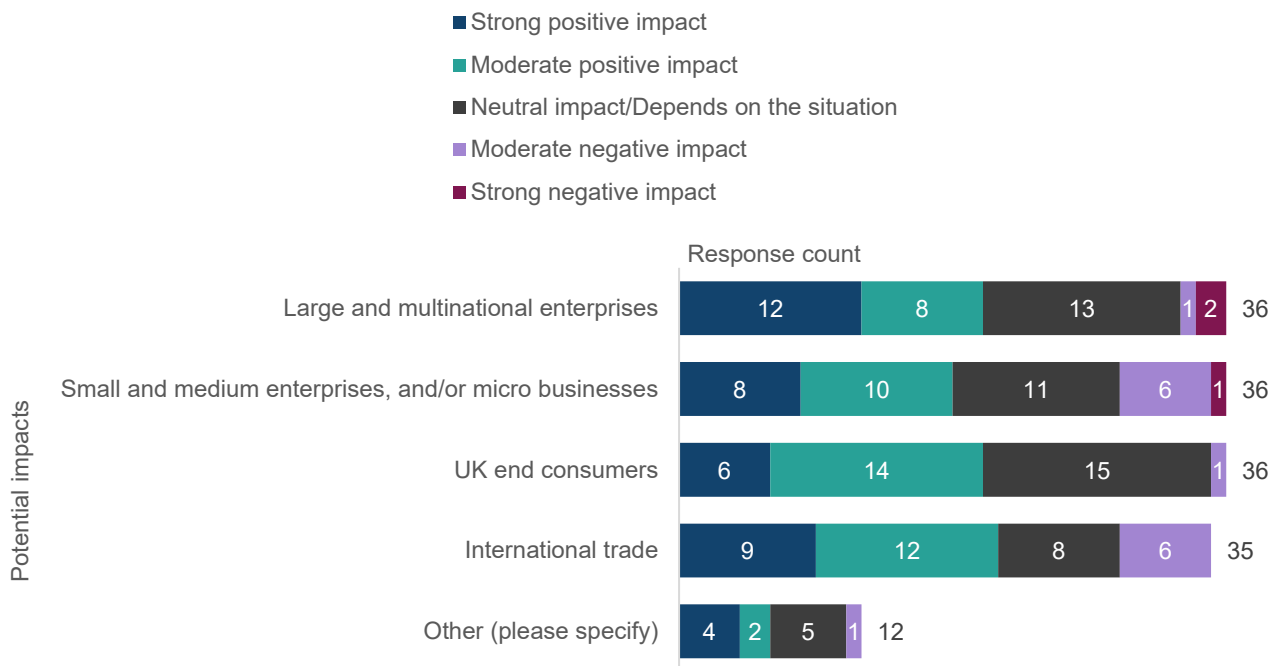
There were 66 responses to the single-choice question. The largest group of respondents (25 respondents) preferred the government to focus solely on GWP at this stage (Option 1). Seventeen respondents favoured combining GWP with all other core environmental impacts listed (Option 3), 12 respondents preferred including GWP alongside some of the listed impacts (Option 2) and a further 12 respondents selected 'Other' (Option 4).

There were 68 responses to the open-text question. Respondents noted that Option 1 would keep the approach practical while data collection and reporting systems are established. Others argued that Option 3 would offer a more balanced and comprehensive framework and help avoid unintended negative effects elsewhere. Arguments in favour of Option 2 suggested this could balance proportionality with robustness, whereas of those who selected 'other' (Option 4), some highlighted the need for longer term alignment with wider environmental goals.

**Question 1.3 Considering the objectives of this policy framework, to grow the market for low carbon products, which of the following do you think will be impacted? Please explain your reasoning with reference to specific policies.**

There were between 12 and 36 responses to the Likert scale sub-questions and 50 responses to the open-text question. Most respondents noted that the policy framework to grow the market for low carbon products would affect all major economic actors, largely in positive or neutral ways, though the scale of impact would differ (see Figure 4).

**Figure 4. Aggregated response count to Question 1.3, ‘Considering the objectives of this policy framework, to grow the market for low carbon products, which of the following do you think will be impacted?’ (select one for each criterion).**



Just over half of respondents considered that large and multinational enterprises (MNEs) would be strongly or moderately positively impacted (20 respondents). In explaining their views, a small proportion noted that the policy framework could provide MNEs with a competitive advantage, though a minority noted the potential for increased administrative burden. Views on small and medium-sized enterprises (SMEs) were more mixed. Around half of respondents indicated that SMEs could be positively impacted (18 respondents), with a minority citing potential improvements in competitiveness. However, a small proportion of respondents suggested that SMEs may be negatively impacted (seven respondents), with a minority noting concerns about increased administrative burden and costs.

Just over half of respondents felt that UK end consumers would be positively impacted (20 respondents), though in explaining their views, a small proportion noted possible higher upfront costs. A similar number of respondents (21 respondents) expected positive effects on international trade, particularly where UK policies align with international standards. When providing further detail, a minority warned that misalignment could create additional reporting burdens and competitive disadvantages for UK suppliers.

### Embodied emissions practices and barriers (Questions 1.4 to 1.7)

#### Question 1.4 Are you taking embodied emissions into account when making purchasing decisions?

There were 37 responses to this Likert scale question. Just over half of respondents (22 respondents) reported that they take embodied emissions into account when making purchasing decisions, either ‘Often’ (16 respondents) or ‘Always’ (6 respondents). A smaller

number of respondents (15 respondents) indicated that they ‘Sometimes’ consider embodied emissions (8 respondents), or that they ‘Rarely’ do so (7 respondents).

**Question 1.5 If response to Question 1.4 was not ‘Never’ or ‘Don’t know’ and you have accounted for embodied emissions at least sometimes, which of the products or product groups you buy does this apply to?**

There were 27 responses to this open-text question. Responses most frequently referenced steel and concrete as the product groups for which embodied emissions are considered, with a minority of respondents mentioning other materials linked to their specific sector.

**Question 1.6 If response to Question 1.4 was not ‘Always’ or ‘Don’t know’ which factors prevent you from taking embodied emissions into account when making purchasing decisions?**

There were 31 responses to this open-text question. Responses frequently highlighted data related issues as the principal factor preventing respondents from taking embodied emissions into account when making purchasing decisions. The majority of respondents noted that emissions data is often unavailable or inaccessible, or that available data is unreliable, inconsistent or not comparable due to differing methodologies. A small proportion of respondents expressed support for more standardised reporting frameworks to address these challenges.

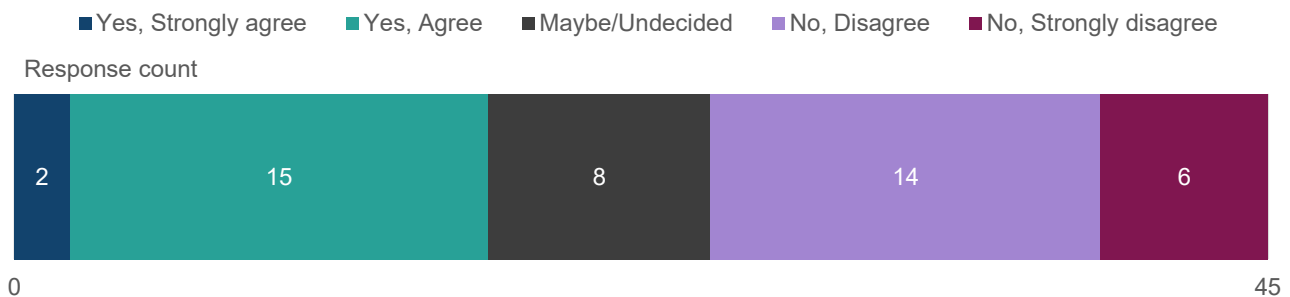
A minority of respondents indicated that cost constrains their ability to consider embodied emissions, while a small proportion noted limited availability of low carbon products as a preventative factor. Respondents referred both to the higher price of low carbon products and the time and resource required to identify suitable alternatives, particularly where familiarity is limited. Some noted that low carbon options meeting specific technical requirements are not always available.

A small proportion of respondents suggested that WLC assessments, rather than product-level data alone, may provide a more effective basis for decision making.

**Question 1.7 Do you agree or disagree that you have sufficient access to embodied emissions data to support your decision-making? Please explain your reasoning, including examples of existing sources for this data and additional data which you would find valuable.**

There were 45 responses to the Likert scale question. The largest group (20 respondents) ‘Disagreed’ (14 respondents) or ‘Strongly disagreed’ (6 respondents) that they have sufficient access to embodied emissions data, while 17 respondents ‘Agreed’ (15 ‘Agreed’ and 2 ‘Strongly agreed’) (See Figure 5).

**Figure 5. Aggregated response count to Question 1.7, ‘Do you agree or disagree that you have sufficient access to embodied emissions data to support your decision-making?’ (select one).**



There were 43 responses to the open-text question. A minority highlighted fragmented and inconsistent datasets and errors in EPDs as key barriers, while a similar proportion felt that the availability of EPDs for major product groups was sufficient for their needs.

Respondents referenced several existing data sources, with the Inventory of Carbon and Energy (ICE) database cited most often, though only by a minority of respondents. WLC data beyond A1-A3, and a standardised, centralised, machine-readable EPD database, were suggested as additional resources that a small proportion would find valuable.

### Willingness to pay and future uptake of low carbon products (Questions 1.8 to 1.11)

#### **Question 1.8 Would you consider paying more for products with a lower embodied carbon content? Please explain your reasoning.**

There were 38 responses to the Likert scale question. Just over half of respondents (21 respondents) indicated that they would ‘Probably’ (17 respondents) or ‘Definitely’ (4 respondents) consider paying more for products with a lower embodied carbon content. In their justification, a small proportion noted that this aligns with their organisational objectives, such as net zero commitments and wider sustainability strategies. Ten respondents were ‘Unsure’ and 7 indicated ‘Probably not’.

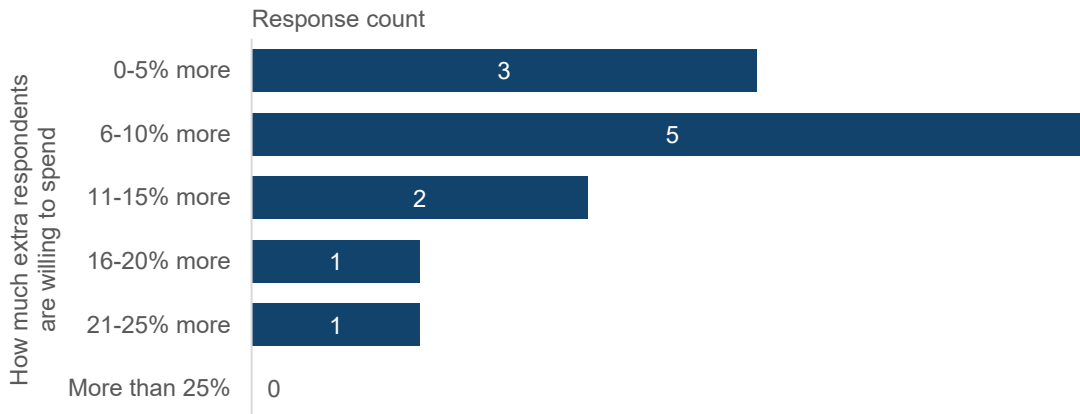
There were 39 responses to the open-text question. In elaborating on their views, a small proportion indicated that they would be willing to pay more in the near term to stimulate demand and reduce costs over time, particularly where carbon savings are significant and where sector or project context supports it. Those respondents who were unsure, or indicated they would probably not be willing to pay more cited cost barriers, limited customer appetite to absorb higher prices and perceived tension with their wider economic objectives.

#### **Question 1.9 If yes to Question 1.8, on average, how much extra would you be willing to spend?**

There were 30 responses to this single-choice question. Just over half of respondents (18 respondents) were unsure how much extra they would be willing to spend on products with a lower embodied carbon content. Of the remaining 12 respondents, 5 respondents indicated

they would be willing to pay ‘6-10%’ more, 3 stated ‘0-5%’ more, 2 indicated ‘11-15%’ more and 2 respondents said they would be willing to pay ‘16-25%’ more (See Figure 6).

**Figure 6. Aggregated response count to Question 1.9, ‘If you answered yes to question 1.8, on average, how much extra would you be willing to spend?’ (select one).**



**Question 1.10 How likely are you to increase the proportion of low carbon products in your purchases in the future? Please explain your reasoning including what factors would support the increased proportion of low carbon products you purchase.**

There were 34 responses to the Likert scale question and 37 responses to the open-text question. Most respondents reported that they are ‘Likely’ (12 respondents) or ‘Very likely’ (19 respondents) to increase the proportion of low carbon products they purchase in the future (31 respondents). Only 3 respondents were ‘Unsure’.

Respondents who were ‘Likely’ or ‘Very likely’ attributed this to decarbonisation commitments and to increased customer demand, while others emphasised that progress depends on market availability, robust data and competitive pricing. Those who were ‘unsure’ stated that purchasing decisions are made on a case-by-case basis and would depend on government support and consumers’ willingness to share costs.

**Question 1.11 To what extent would a future of increased consumer demand for low carbon products would have the below impacts? Please explain your reasoning.**

There were between 32 and 33 responses to the Likert scale sub-questions. The largest group of respondents (25 respondents) suggested that increased consumer demand for low carbon products is ‘Likely’ (15 respondents) or ‘Very likely’ (10 respondents) to drive a scale-up in production (Impact 1). Twenty-three respondents reported that it could ‘Likely’ (7 respondents) or ‘Very likely’ (16 respondents) reduce embodied emissions across the value chain (Impact 2), while 18 respondents indicated that it could ‘Likely’ (11 respondents) or ‘Very likely’ (7 respondents) affect their business model (Impact 3).

There were 42 responses to the open-text question. In their justification, just over half of respondents said that stronger demand could drive a scale-up in production as it would make it more viable for businesses to invest in, and procure, low carbon products. A small proportion cautioned that increased demand alone would have limited impact, given the significant

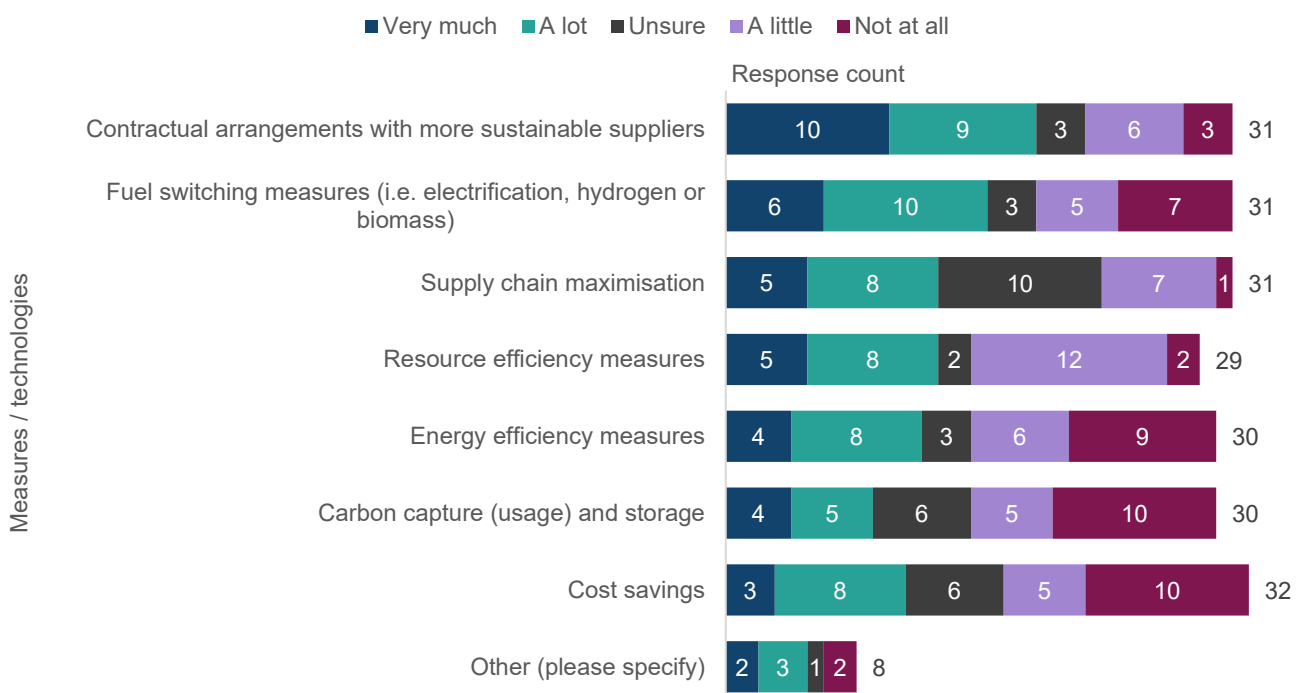
investment required to decarbonise, and emphasised that policy and financial support would also be essential. Just over half of respondents suggested that increased demand may reduce embodied emissions by sending a strong market signal to industry to invest in lower carbon products. A small proportion added that it could influence business models by encouraging more circular approaches. However, of the respondents who reported it was unlikely to affect business models, some stated that businesses have already switched to low carbon production.

### Data needs and supplier relationships (Questions 1.12 to 1.13)

**Question 1.12 To what extent would improved information on the embodied emissions throughout the value chain help you achieve your decarbonisation goals, and implement any of the below measures and/or technologies? Please explain your reasoning.**

There were between 29 and 32 responses to the Likert scale sub-questions. From the listed measures and technologies, ‘Contractual arrangements with more sustainable suppliers’ were identified as most helpful, with a majority of respondents (19 respondents) indicating that this would help them to a large extent in achieving their decarbonisation goals (10 selected ‘Very much’ and 9 ‘A lot’). Around half of respondents (16 respondents) selected ‘Fuel switching measures’, while just under half selected resource ‘Efficiency measures’ or ‘Supply chain maximisation’ (13 respondents each) (See Figure 7).

**Figure 7. Aggregated response count to Question 1.12, ‘To what extent would improved information on the embodied emissions throughout the value chain help you achieve your decarbonisation goals, and implement any of the below measures and/or technologies?’ (select one for each criterion).**



There were 40 responses to the open-text question. Respondents noted that better information would help organisations identify carbon hotspots, target priority interventions and strengthen procurement decisions. However, a minority felt improved information alone would not drive change, pointing to cost barriers. Around half of respondents suggested that data improvements must be supported by wider policy measures to be effective.

**Question 1.13 Do you have existing relationships with lower carbon steel/cement/concrete producers? If so, please provide details.**

There were 43 responses to the single choice question. The majority of respondents (33 respondents) reported having existing relationships with lower carbon steel, cement or concrete producers, while 10 respondents stated they do not.

There were 40 responses to the open-text question. Respondents described their rationale for selecting suppliers, either for their own business or when recommending products to clients. Respondents highlighted barriers such as supplier relationships being driven by cost, quality and availability, limited availability of certain lower carbon products, particularly cement, and inconsistent sustainability knowledge among suppliers and fabricators. A small proportion reported they are beginning to explore lower carbon alternatives, including trialling new products or engaging potential suppliers. Respondents sometimes named specific businesses they work with, primarily MNEs, though SMEs were also referenced.

## Policy decisions and next steps

The government thanks respondents for their views on cross-cutting considerations for selecting steel, cement, and concrete as the initial sectors in scope of the low carbon product policy framework, and current industry practices for procuring low carbon products.

A wide range of benefits of introducing a policy framework to grow the market for low carbon products were identified, including clearer market signals for low carbon products, improved comparability across suppliers, and greater confidence in decision-making where robust emissions information is available. Respondents also highlighted several barriers to buying low carbon products and to reporting emissions data, notably data availability and quality issues and administrative and compliance burdens, particularly for SMEs. There were also concerns around cost, capacity, and supply-chain readiness. Collectively, the benefits and barriers raised underline a strong case for government intervention to support consistent reporting, improve data accessibility, and enable fair participation across industry. The complexity of the current landscape, along with how this complexity disproportionately impacts smaller firms, were frequently cited as further reasons for government action.

The government confirms that assessments comparing policy options will be made against three primary criteria serving as guiding principles. In no particular order, these are: 1) 'Ensures measurement is robust and comprehensive', 2) 'Incentivises decarbonisation' and 3) 'Enables product comparison', as these were considered the most relevant criteria. The government will use 4) 'Operationally ready' and 5) 'Minimises costs' as secondary criteria.

These were seen as less relevant criteria and will be used to differentiate between policy options that perform similarly against the primary objectives. This allows the distinction between what a policy must deliver to be considered effective (primary objectives) and how efficiently, feasibly and proportionately it can be delivered (secondary criteria).

The government acknowledges respondents' preference for simplicity, proportionality and feasibility for initial environmental impact considerations, given limited non-carbon data availability and acknowledges the broad support for Option 1: Global Warming Potential (GWP) only (expressed in carbon dioxide equivalent) at this stage. The government will proceed with this option initially as evidence suggests it would best support early implementation, market uptake and alignment with the EU CPR while minimising unnecessary complexity. The government will keep this decision under review and consider potentially expanding scope to additional environmental impacts in the future, drawing on approaches taken in other policies. Any such expansion would be introduced on a phased basis if taken forward.

The government notes an overall willingness to increase purchases of low carbon industrial products, and that respondents' purchasing decisions for steel and concrete are already influenced by embodied carbon, primarily driven by internal sustainability commitments.

The government acknowledges that despite appetite to use low carbon industrial products, there are multiple barriers faced by industry. Specific issues were highlighted regarding the need for improved data quality and availability, clearer policy signals and proportionate business requirements to improve data, systems and conditions that underpin demand for low carbon products. The government intends that the introduction of the policy framework outlined in the consultation will start to address these barriers, with proportionate monitoring and evaluation arrangements put in place to enable ongoing assessment of effectiveness and inform future refinements.

# Chapter 2: The Embodied Emissions Reporting Framework: overview and cross-cutting considerations

## Chapter overview

This chapter sought views on the purpose of the EERF and the features that would best support producers and buyers of steel, cement and concrete. It outlined proposed guidance on embodied emissions reporting as the first phase of the framework and work to develop an IT system to simplify reporting and improve the accessibility and comparability of data. These measures were proposed on an initial voluntary basis and feedback was sought on a potential move to mandatory reporting in the future, subject to further consultation. The chapter also asked whether guidance should focus on best practice, minimum standards or a combination of both. It also proposed LCA based reporting and to explore maximising use of existing datasets.

### Intended users and scope (Question 2.1)

**Question 2.1 Do you agree or disagree that producers and buyers of in-scope products are the main intended end users of the EERF? Are there any additional end users that should be considered? Please explain your reasoning.**

There were 58 responses to the Likert scale question. The majority of respondents 'Agreed' (39 respondents) or 'Strongly agreed' (10 respondents) that producers and buyers of in-scope products would be the main intended end users of the EERF. Six respondents 'Disagreed', and 3 were 'Undecided'.

There were 49 responses to the open-text question, where respondents identified additional users who should be considered. A minority highlighted policymakers, noting their need for reliable data to support policy design, set regulations and standards, monitor decarbonisation progress and assess the impact of interventions. A similar proportion mentioned academics, noting their role in analysing decarbonisation strategies, refining methodologies and supporting innovation and best practice. A small proportion of respondents identified architects and designers, with some commenting that their influence on early design and material choices can shape embodied emissions outcomes.

### Benefits, barriers and current practices (Questions 2.2 to 2.5)

**Question 2.2 What do you consider are the benefits of measuring and reporting embodied emissions?**

There were 69 responses to this open-text question. The majority of respondents noted that measuring and reporting embodied emissions enables buyers, designers and decision makers

to identify and select lower carbon options. Around half said that reporting embodied emissions supports wider decarbonisation efforts and improves transparency.

A minority of respondents added that measuring and reporting embodied emissions strengthens market signals and helps users identify emissions hotspots and opportunities for reductions across supply chains. A similar proportion commented that consistent reporting strengthens accountability within supply chains and improves the reliability of emissions data, particularly where verification is used.

A small proportion suggested that reporting supports compliance with existing and future standards and policies, aligns with international schemes such as the CBAM, enhances comparability across products and sectors and enables more informed policy design. A similar proportion highlighted potential wider economic benefits, including improved competitiveness for UK manufacturers and wider sector digitisation.

### **Question 2.3 Do you believe that there are barriers to measuring and reporting embodied emissions?**

There were 72 responses to this open-text question. Just over half of respondents noted that limited access to reliable data, including from upstream sources, is a key barrier to measuring and reporting embodied emissions. Just under half reported concerns about data quality, with some noting that inconsistent methodologies and varied data sources undermine trust and limit comparability.

Just under half of respondents stated that technical complexity, combined with skills gaps across the supply chain, constrains uptake and consistency of reporting, while a minority highlighted costs, particularly in relation to EPDs. A small proportion of respondents identified additional obstacles, including system operability and integration challenges and the burden of evolving regulatory requirements. A similar proportion pointed to weak market demand, insufficient incentives, a lack of clear guidance and limited influence on project outcomes. A small proportion of respondents also noted sensitivities around commercially confidential information and intentional non-reporting or withholding of data to avoid perceived competitive disadvantage.

### **Question 2.4 If you are a producer or practitioner, do you currently measure embodied emissions? If so, please provide details of the processes, methodologies and standards that you follow, as well as any secondary data that you may use.**

There were 34 responses to the Likert scale question. Most respondents reported that they measure embodied emissions at least sometimes. The most selected option was 'Often' (14 respondents), followed by 'Always' (13 respondents), 'Sometimes' (6 respondents) and 'Rarely' (one respondent).

There were 43 responses to the open-text question. A small proportion of respondents noted they measure embodied emissions to support product or material comparisons and meet client or industry requirements. A similar proportion emphasised the importance of quantifying embodied CO<sub>2</sub> abatement and improving transparency across supply chains. Respondents

referenced a range of methodologies and data sources, including EPDs, LCAs, the Greenhouse Gas (GHG) Protocol scopes and the worldsteel LCI methodology. Respondents reported using both primary data and secondary datasets, including EcoInvent, the ICE database and OneClick LCA. More than half of respondents who mentioned secondary databases stated that they prioritise primary data and use secondary sources only when suitable primary data is unavailable.

**Question 2.5 If you currently measure embodied emissions, what are the costs of this activity? Please provide context.**

There were 40 responses to this open-text question. Respondents reported a wide range of absolute costs for measuring embodied emissions, from £1,500 to £12,000 for a single EPD (excluding verification), with higher costs for more complex products. A small proportion noted that total annual expenditure can reach tens of thousands of pounds.

A small proportion of respondents explained that third party verification adds substantial cost, up to £2,000 to £3,000 per product and over £15,000 for batches, with limited verifier availability, varying standards and extensive data requirements causing delays and further costs, particularly for SMEs. A small proportion raised concerns about restrictions on sector wide EPDs under the EU CPR 2024, which came into force from January 2026, and called for targeted SME support.

Respondents also described cost drivers including data gathering effort, specialist expertise, consultancy fees, software licensing costs and project delays. However, a small proportion of respondents noted that costs can be modest, absorbed within routine project work or represent less than 1% of total project costs. Respondents added that creating multiple EPDs for similar products can reduce costs.

### Voluntary versus mandatory approach (Questions 2.6 to 2.7)

**Question 2.6 Do you agree or disagree with the government's proposal to initially introduce the EERF on a voluntary basis? Please explain your reasoning.**

There were 68 responses to the Likert scale question. The majority of respondents 'Agreed' (39 respondents) or 'Strongly agreed' (11 respondents) with the proposal to initially introduce the EERF on a voluntary basis, while fewer respondents 'Disagreed' (11 respondents) or 'Strongly disagreed' (5 respondents). Two respondents were 'Undecided'.

There were 72 responses to the open-text question. Just under half of respondents felt that a voluntary phase would give industry time to adapt and build capacity before any mandatory requirements are introduced, with some emphasising that this phased approach enables learning, highlights practical challenges and supports the development of more effective future regulation. A minority noted that it could help reduce burdens, particularly for SMEs.

However, a minority of respondents stated that a voluntary approach would have little effect and risks inconsistent reporting, which could unintentionally give some businesses a

competitive advantage. A small proportion explained that they disagreed with the proposal as they felt that industry is already prepared for mandatory requirements.

**Question 2.7 Do you agree or disagree that a potential transition to a mandatory approach to reporting embodied emissions of products in the longer term could be beneficial? Please explain your reasoning and whether you see any risks or opportunities.**

There were 66 responses to the Likert scale question. Most respondents 'Agreed' (28 respondents) or 'Strongly agreed' (26 respondents) that transitioning to mandatory reporting of embodied emissions would be beneficial in the longer term. Fewer respondents 'Disagreed' (2 respondents) or 'Strongly disagreed' (5 respondents). Five respondents were 'Undecided'.

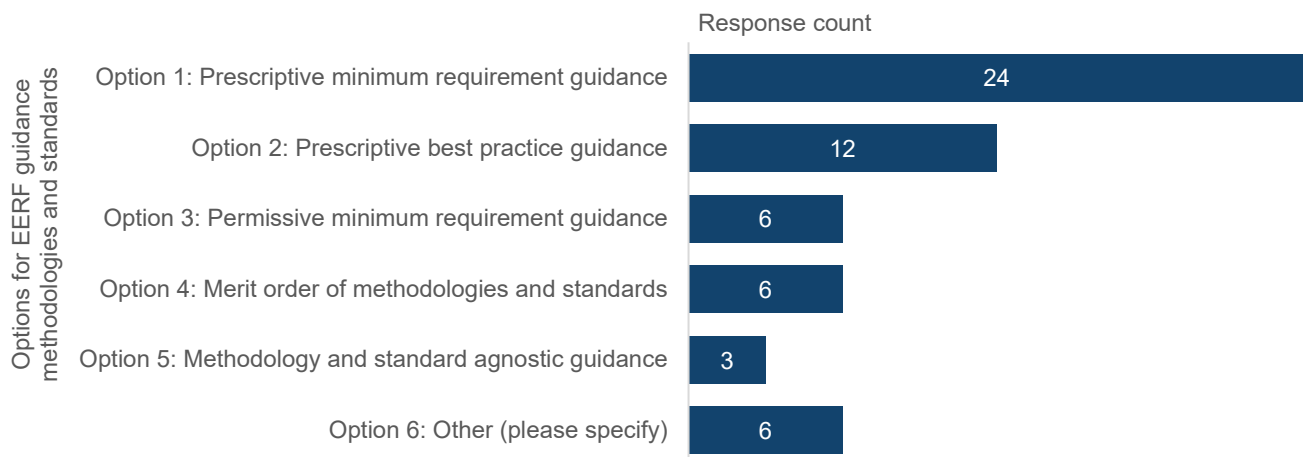
There were 65 responses to the open-text question. A minority of respondents noted that mandatory requirements would improve data quality and transparency and accelerate decarbonisation by ensuring comparability across the market and holding all producers to consistent standards. A small proportion added that it would support alignment with international approaches. Some respondents expressed concerns about transitioning to mandatory reporting, particularly increased administrative and compliance burdens for SMEs. These respondents emphasised the need for adequate government support, clear guidance and phased implementation to avoid unintended consequences. A small proportion warned that mandatory reporting could disadvantage domestic producers if requirements are not applied equally to imports, or if introduced before industry is ready.

## Methodology, guidance and data use (Questions 2.8 to 2.10)

**Question 2.8 Should there be a common methodology and standard for EERF guidance and should this represent best practice or minimum requirement? Please explain your reasoning.**

There were 57 responses to the single-choice question. Just under half of respondents (24 respondents) supported 'Prescriptive minimum requirement guidance' (Option 1) and 12 selected 'Prescriptive best practice guidance' (Option 2). Responses were evenly split between permissive 'Minimum requirement guidance' (Option 3), 'Merit order of methodologies and standards' (Option 4) and 'Other' (Option 6), with 6 respondents choosing each. Five respondents preferred 'Methodology and standard agnostic guidance' (Option 5) (Figure 8).

**Figure 8. Aggregated response count to Question 2.8, ‘Should there be a common methodology and standard for EERF guidance and should this represent best practice or minimum requirement?’ (select one).**



There were 63 responses to the open-text question. Some respondents stated that Option 1 would provide a common methodology and consistent baseline, improve comparability across the market and reduce the risk of businesses choosing favourable methodologies. Respondents provided similar arguments in favour of Option 2.

Respondents noted various benefits of Option 3 including flexibility for producers to use methods better suited to their operations, particularly where no single methodology is widely agreed within an industry. However, some respondents argued that Option 4 offers greater adaptability than strict prescriptive guidance while still providing more structure than fully permissive approaches.

**Question 2.9 Do you agree or disagree that the initial EERF guidance should focus on LCA based approaches to reporting? Please explain your reasoning.**

There were 64 responses to the Likert scale question. The majority of respondents ‘Agreed’ (25 respondents) or ‘Strongly agreed’ (30 respondents) that initial guidance should focus on LCA based approaches. Fewer respondents ‘Disagreed’ (4 respondents) or ‘Strongly disagreed’ (one respondent) and four respondents were ‘Undecided’.

There were 66 responses to the open-text question. Arguments in favour of an LCA based approach included that it is well established and scientifically robust, and that it captures all relevant stages and impacts across supply chains, providing a holistic understanding of embodied carbon. Arguments against an LCA approach included that an emphasis on detailed measurement could divert attention from the urgency of action and stressed the need to align with UK CPR developments when determining future methodologies.

**Question 2.10 Is there anything else that the government should consider regarding maximising use of existing data?**

There were 40 responses to this open-text question. Respondents highlighted the importance of maximising the value of existing data by improving data sharing and interoperability across systems. Better alignment with existing standards and relevant initiatives, such as the EU CPR and the related UK CPR plans, was emphasised as key to reducing duplication and minimising reporting burdens. There were mixed views on using CBAM or ETS data for product-level LCAs or EPDs, with a small proportion suggesting this data could be a useful starting point, while a similar proportion argued they are oversimplified.

A small proportion of respondents suggested that product data already held within WLC databases could be used more effectively, and that stronger quality assurance and independent verification would strengthen confidence in product-level information. Respondents also highlighted the value of greater openness and transparency, including clearer incentives to share data and better integration with digital tools and platforms. A small proportion proposed introducing sector specific, mandatory best practice specifications to provide greater clarity and consistency. A phased approach, starting with simple, core requirements and expanding over time was encouraged by a small proportion of respondents.

## Policy decisions and next steps

The government acknowledges respondents' views on the benefits of and barriers to measuring and reporting embodied emissions. A wide range of benefits were reported including supporting lower carbon design and purchasing decisions and pinpointing opportunities for emissions reductions for producers. Government also notes the range of barriers cited by respondents that undermine trust and comparability and increase administrative burden. The benefits and barriers expressed demonstrate a strong case for government intervention in this area. The complexity of this landscape as well as the existing costs, which are significant for SMEs, were also raised by some respondents as reasons for government to intervene.

The government welcomes the overall support for the proposal that producers and buyers of in-scope products should be the main intended end users of the EERF. Development of the EERF will proceed on this basis. The government notes responses flagging the importance of architects and designers as well and confirms they will be considered as sub-categories of buyers in this context. Insights from the EERF Digital Discovery project, discussed in the introduction, corroborate these findings. Other users will be accommodated where possible.

The government confirms that guidance on measurement, reporting and use of product-level embodied emissions data will be developed. There will be separate guidance for producers and for buyers each incorporating the EERF considerations outlined in Chapters 2 and 3 and the procurement considerations discussed in Chapter 6.

Given clear support from respondents that the EERF elements of the guidance should focus on life cycle assessment (LCA) based approaches to reporting, the government confirms that it will proceed with that option. Respondents told us that this will ensure reporting captures all relevant stages and impacts in a scientifically robust way as the LCA methodology is already

well established. The data quality research project also confirmed that the more comprehensive assessment offered by LCA is more appropriate for the objectives of the EERF, compared with the EU CBAM methodological approach. This is explained in more detail in the introduction.

The government will continue exploring ways to maximise the use of existing data, such as the UK and EU ETS data, and pursue interoperability between different product-level emissions reporting approaches. We welcome stakeholders' views on the importance of this but acknowledge the mixed views on the suitability of EU or UK CBAM or ETS data to support product-level life cycle assessments or EPDs. Findings from the data quality research project and stakeholder views will be used to inform future work on this.

The government will adopt a prescriptive, minimum standard approach for developing the EERF elements of the guidance. We note respondents' views that this approach will best support comparability.

The government will initially introduce the EERF on a voluntary basis and welcomes respondents' support for this approach. We acknowledge the range of stakeholder views about the desirability of moving to a mandatory basis in the future. This will be kept under review. The voluntary measures will be subject to the monitoring and evaluation plans outlined in the introduction.

Following MHCLG's Construction Products Reform Green Paper<sup>21</sup> published in February 2025, which reaffirmed the government's commitment to system wide reform of the construction products regime, the Construction Products Reform White Paper<sup>22</sup> was published in February 2026 (the consultation ran until 20 May 2026). The white paper confirms consistency with the revised EU Construction Product Regulations (EU-CPR) where this meets reform objectives. The white paper establishes that government will expect consistency with European product standards and will consider the designation of new standards on a case-by-case basis to ensure that objectives for safe products, safely used are met.

The revised EU regime introduces several new environment and sustainability requirements for those products covered by a designated standard. For the subset of products subject to EU-consistent, designated standards, this means that manufacturers will be required to provide details of their product's environmental sustainability performance over its life cycle within its Declaration of Performance and Conformity and this information will need to be digitally available. Subject to further collaboration and policy development, the proposed EERF framework could support compliance with the environmental aspects of the EU-CPR reforms for producers and help buyers to use this information.

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<sup>21</sup> UK Government 2025 [Construction Products Reform Green Paper](#)

<sup>22</sup> UK Government 2026 [Construction Products Reform White Paper](#)

# Chapter 3: Guidance in the embodied emissions reporting framework (EERF)

## Chapter overview

This chapter sought views on which PCF and EPD standards government should endorse and on suitable approaches for verifying embodied emissions. It set out the rationale for using established international standards rather than developing new ones. The chapter also invited feedback on key elements of the EERF, including reporting metrics, relevant life cycle stages, recommended measurement standards and verification requirements. It further asked for views on improving consistency in data use and cross-sector approaches for EPDs. To support methodological alignment, the consultation also sought feedback on four technical areas: the use of secondary data and default values, allocation of co-product emissions, accounting for alternative fuels and ensuring data quality.

### Reporting metrics and life-cycle scope (Questions 3.1 to 3.2)

**Question 3.1 Which option for the reporting metric do you think the guidance should recommend? Please explain your reasoning, and details of any alternative options.**

There were 63 responses to the single-choice question. Just under half of respondents (29 respondents) favoured the use of declared units (Option 1) as the most appropriate reporting metric to recommend in future guidance. Twenty-four respondents preferred functional units (Option 2) and only 5 respondents thought producers should record the metric they consider most appropriate (Option 3). Five respondents chose 'Other' (Option 4).

There were 51 responses to the open-text question. A minority commented that declared units are simple and practical to use. A small proportion noted that they support easier product comparison and are suitable for early-stage or intermediate products where the end use is unknown. A similar proportion highlighted that declared units align with existing PCF standards and current carbon accounting and procurement systems. However, several respondents argued that declared units may be too generic and fail to reflect real-world performance, limiting their usefulness.

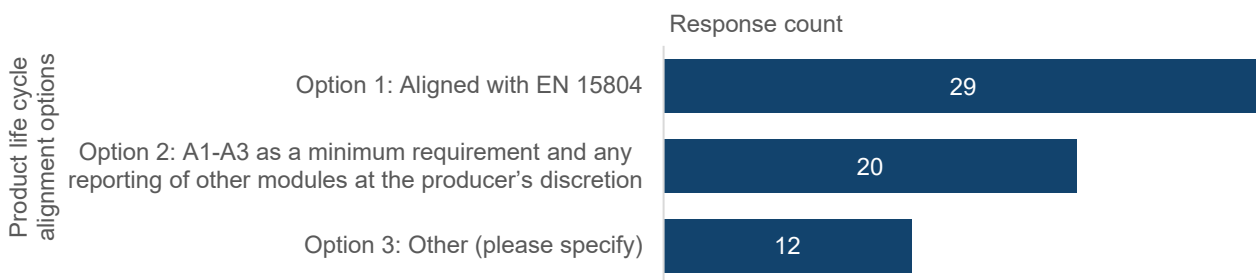
Arguments in favour of functional units (Option 2) suggested that these allow for fairer comparison between products and provide more accurate information by capturing product function, end use and lifespan. Respondents raised several arguments against the use of functional units including difficulties in standardising functional units across products and sectors, potential risks to commercial confidentiality and uncertainty in assumptions about end use. A small proportion noted that functional units may require full LCAs, which could make them too complex for initial guidance.

A small proportion of respondents stated that allowing producers to choose the most appropriate metric (Option 3) would be insufficiently transparent and unsuitable for meaningful product comparison. Among those selecting ‘Other’ (Option 4), suggestions included sector-specific approaches, hybrid models, or alignment with existing EPD and Product Category Rule (PCR) standards.

**Question 3.2 Which part of the product’s life cycle should the EERF guidance recommend reporting on? Please explain your reasoning.**

There were 61 responses to the single-choice question. The most commonly selected option was ‘Aligned with EN 15804’ (Option 1), chosen by 29 respondents. Twenty respondents selected Option 2, favouring ‘A1-A3 as a minimum requirement with reporting of other modules at the producer’s discretion’. Twelve respondents selected ‘Other’ (Option 3) (see Figure 9).

**Figure 9. Aggregated response count to Question 3.2, ‘Which part of the product’s life cycle should the EERF guidance recommend reporting on?’ (select one).**



Fifty-three responded to the open-text question. A small proportion highlighted EN 15804 as foundational for integration with EU regulations such as the EU CPR and DPPs, and for alignment with International Organisation for Standardisation (ISO) standards. A similar proportion of respondents viewed EN 15804 alignment as essential to ensure consistency and comparability across construction products, helping to prevent divergent practices and strengthen the credibility of embodied carbon reporting. Those supporting using A1-A3 as the minimum requirement argued that these modules are measurable, comparable, and well established within EPD practice. A small proportion welcomed the flexibility to report additional modules (A4-C and D) as a pragmatic starting point. A similar proportion raised concerns about reporting stages where end uses or destinations are unknown and therefore favoured a clear core requirement with voluntary expansion to support improvement without imposing premature burdens.

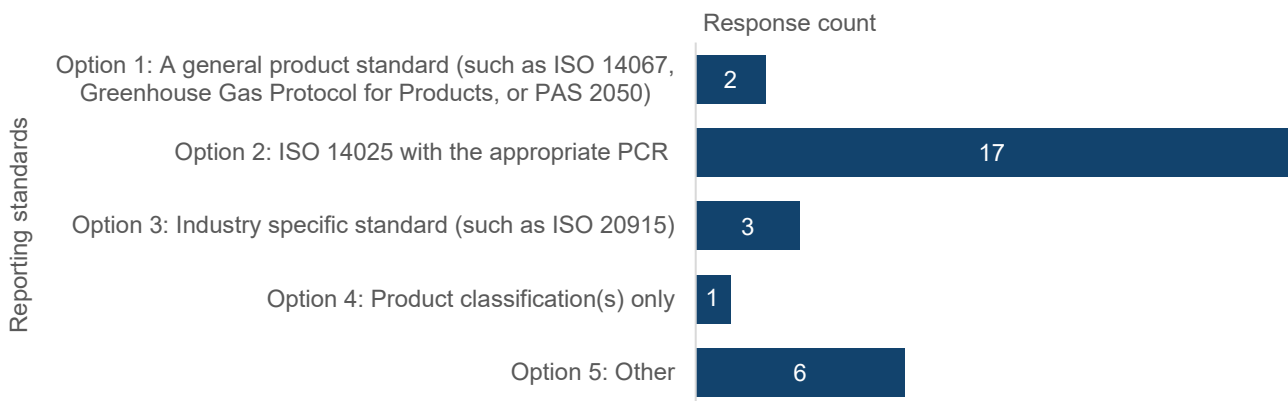
A small proportion of respondents advocated for eventual whole life reporting, particularly the inclusion of module D for steel products, arguing this would better capture steel’s recycling potential and support comparison between production routes.

**Sector specific guidance for steel and concrete (Questions 3.3 to 3.4)**

**Question 3.3 For steel producers, which of the options should the EERF guidance endorse? Please explain your reasoning.**

There were 29 responses to the single-choice question. The most commonly endorsed option was 'ISO 14025 with the appropriate PCR' (Option 2), selected by 17 respondents. Smaller numbers supported an 'Industry specific standard' (Option 3; 3 respondents) or 'A general product standard' (Option 1; 2 respondents), while one respondent selected 'Product classification(s) only' (Option 4). Six respondents selected 'other' (Option 5) (see Figure 10).

**Figure 10. Aggregated response count to Question 3.3, 'For steel producers, which of the options for reporting standards should the EERF guidance endorse?' (select one).**



Thirty responded to the open-text question. Those selecting Option 2 noted that ISO 14025 is credible, internationally recognised, and supports effective product comparison. A minority recommended aligning with BS EN 15804 for its relevance to construction products and broad environmental scope, while another small proportion suggested EN 17662, noting that it is not yet finalised.

Those supporting a general product standard (Option 1), suggested it could aid comparison and align with international standards, though it was noted that this may lack the product-specific detail needed for steel. Respondents who chose 'other' (Option 5) suggested alternatives such as the ResponsibleSteel International Production Standard, the Global Steel Climate Council's (GSCC) Steel Climate Standard, or additional requirements alongside ISO standards.

**Question 3.4 For cement and concrete producers which of the options should the EERF guidance endorse? Please explain your reasoning.**

There were 23 responses to the single-choice question. The majority of respondents (17 respondents) selected ISO 14025 with the appropriate PCR (Option 2) as the reporting standard that EERF guidance should endorse. Small numbers selected a general product standard (Option 1; 2 respondents), product classifications only (Option 4; 2 respondents), or Other (Option 5; 2 respondents). No respondents selected an industry-specific standard (Option 3).

There were 26 responses to the open-text question. Just under half stated that Option 2 best supports comparability, while a small proportion highlighted that it provides a robust, clear and harmonised framework for producing third-party verified EPDs. In addition, respondents noted that this approach supports circular economy practices as it captures a broad range of

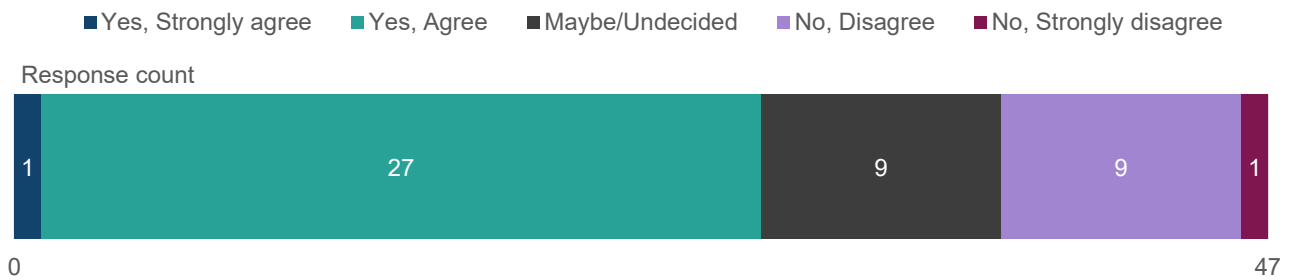
environmental impacts. A recurring theme across responses was the need for international consistency. A minority of respondents stressed that aligning UK guidance with EN 15804 would avoid duplication, support export markets, and prevent UK producers from being disadvantaged relative to EU and global competitors. A small proportion also emphasised the value of complementary, product-specific PCRs alongside EN 15804, provided these remain interoperable within a single, consistent reporting framework.

### EPD verification and possible improvements (Questions 3.5 to 3.7)

#### Question 3.5 Do you think the EPD verification system is sufficiently robust?

There were 47 responses to this Likert scale question. Most respondents agreed that the EPD verification system is sufficiently robust, with 27 respondents agreeing and one strongly agreeing. Nine respondents were 'Undecided', while 9 'Disagreed' and one 'Strongly disagreed' (see Figure 11).

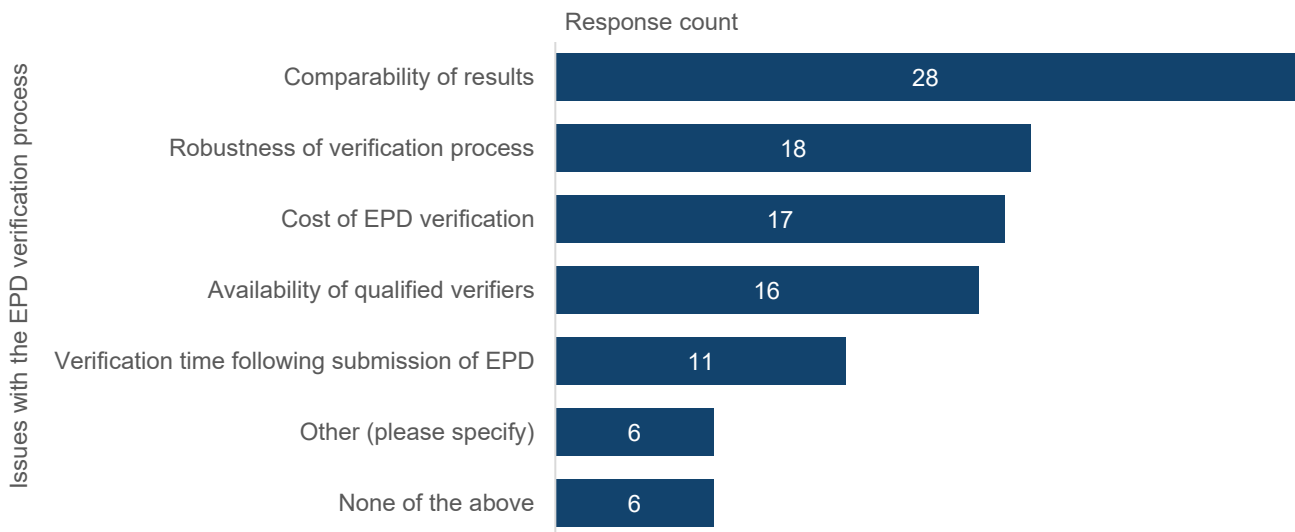
**Figure 11. Aggregated response count to Question 3.5, 'Do you think the EPD verification system is sufficiently robust?' (select one).**



#### Question 3.6 If you believe that there are issues with the EPD verification process, which of the below possible issues apply? Please explain your reasoning.

There were 42 responses to the multiple-choice question. Respondents who indicated that there are issues with the EPD verification process most commonly identified 'Comparability of results' as a concern (28 respondents). This was followed by concerns about the 'Robustness of the verification process' (18 respondents), the 'Cost of EPD verification' (17 respondents), and the 'Availability of qualified verifiers' (16 respondents). Fewer respondents highlighted 'Verification times following submission of an EPD' (11 respondents) (see Figure 12).

**Figure 12. Aggregated response count to Question 3.6, ‘If you believe that there are issues with the EPD verification process, which of the below possible issues apply?’ (Select all that apply)**



There were 34 responses to the open-text question. Respondents highlighted the importance of EPD verification but raised several issues in current practice, calling for clearer government guidance, harmonised rules, digitalisation and stronger oversight to improve reliability and comparability. Respondents who reported issues with comparing EPD results, noted inconsistencies in assumptions, data sources, system boundaries and interpretations of EN 15804 or relevant PCRs. This was reported to limit EPD comparability across both products and programme operators, therefore limiting their usefulness.

While verification was viewed as essential for ensuring credibility, respondents highlighted uneven application of standards, varying levels of scrutiny and differing interpretations across programme operators, which were seen to risk undermining trust and creating an uneven playing field.

Respondents also raised concerns about high verification costs, noting that these can be prohibitive for smaller manufacturers and may encourage reliance on self-certification, reducing confidence in reported data. A small proportion of respondents reported EPD verification periods of up to 18 months. Respondents attributed these delays to shortages of qualified verifiers and increasing demand.

**Question 3.7 Do you believe that any of the following possible government interventions could help improve the robustness and quality of the current EPD verification process and capacity in the market? Please explain your reasoning.**

There were 52 responses to the multiple-choice question. Views were relatively evenly distributed across the main options. The most frequently selected option was for government to ‘Work with or accredit programme operators’ (Option 3), selected by 30 respondents. This was followed by ‘Produce guidance’ (Option 1) and ‘Support the creation of verification tools’ (Option 2), each selected by 26 respondents. Fourteen respondents selected government to

‘Select or establish a particular programme operator’ (Option 4), while 8 respondents selected ‘Other’ interventions (Option 5).

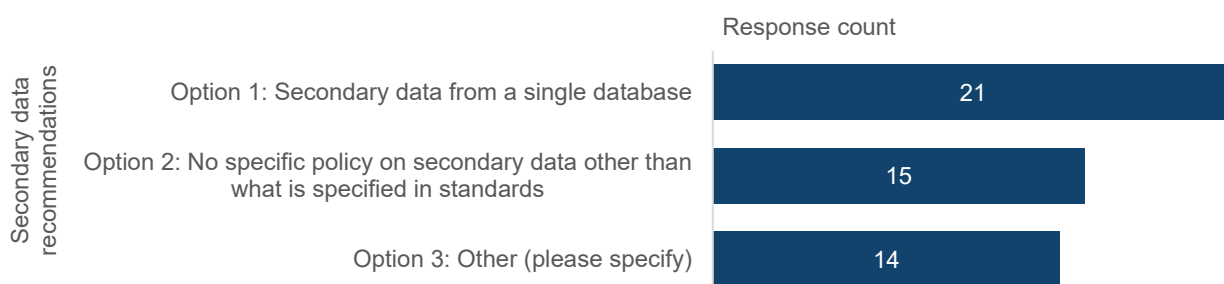
There were 45 responses to the open-text question. Respondents indicated that Option 3 would strengthen trust in EPDs, improve verification quality, and reduce variation between programme operators, facilitating greater market consistency. Those who supported government-produced guidance (Option 1), emphasised the need for clear, concise and prescriptive rules aligned with EN 15804 and ISO 14067 standards. Respondents viewed guidance as the essential first step to ensure comparability and reduce ambiguity, particularly as EPDs are produced more frequently. Respondents who expressed support for government supported verification tools (Option 2) noted such tools could improve consistency, reduce administrative effort, accelerate verification timelines, and lower costs, with particular benefits for SMEs. Suggested functions included automated data intake, checks against PCR requirements and increased transparency. Despite support for government intervention, respondents encouraged new requirements to build on existing systems. They warned that poorly aligned interventions could increase cost and burden, risk duplication, and fail to address concerns on inconsistent or poor-quality data unless verification tools are standardised to support comparability.

## Secondary data and database selection (Questions 3.8 to 3.10)

### Question 3.8 Which options should the EERF guidance recommend regarding secondary data? Please explain your reasoning.

There were 50 responses to the single-choice question. The most commonly selected option was using ‘Secondary data from a single database’ (Option 1), chosen by 21 respondents. This was followed by having ‘No specific policy beyond what is set out in standards’ (Option 2), selected by 15 respondents, and ‘Other’ (Option 3), selected by 14 respondents (Figure 13).

**Figure 13. Aggregated response count to Question 3.8, ‘Which options should the EERF guidance recommend regarding secondary data?’ (select one).**



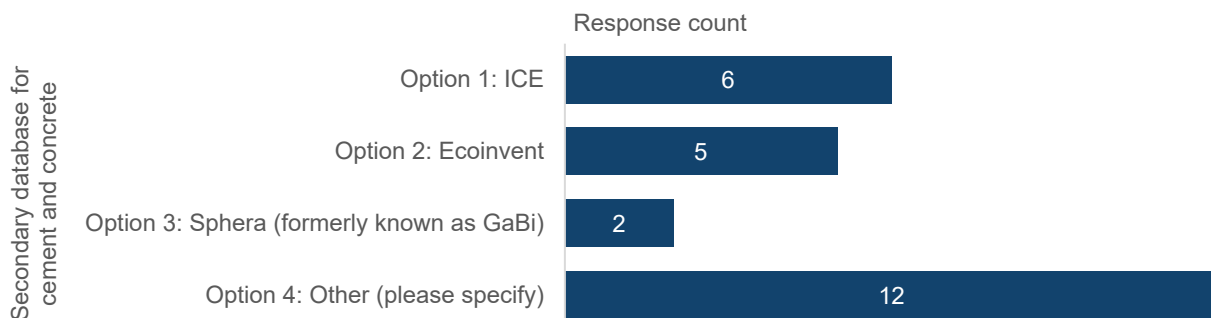
There were 45 responses to the open-text question. Those who elected secondary data from a single database (Option 1), noted that it could improve consistency and, in turn, enhance competition and comparability. A small proportion stated that the database should be open source to reduce costs, though a minority expressed concern that a single database may not be sufficiently comprehensive or keep up with market changes. Respondents in favour of having no specific policy on secondary data beyond existing standards (Option 2) argued that

this approach provides greater flexibility and ensures data can remain dynamic, noting that mandating a single database could be overly restrictive and difficult to choose. A small proportion of respondents suggesting a hybrid approach combining Options 1 and 2 to avoid the risk of distortion or rigidity from relying solely on a single dataset. A minority highlighted the need for mandatory transparency on data sources. Across all options, respondents noted that secondary databases can be costly to access and emphasised the importance of gradually shifting towards greater use of primary data.

**Question 3.9 If you answered Option 1 to Question 3.8, which secondary database do you think reporting should be in accordance with for cement and concrete? Please explain your reasoning.**

There were 25 responses to the single-choice question. The most commonly selected option was ‘Other’ (Option 4), chosen by 12 respondents. Smaller numbers selected ‘ICE’ (Option 1; 6 respondents), ‘Ecoinvent’ (Option 2; 5 respondents), and ‘Sphera (formerly known as GaBi)’ (Option 3; 2 respondents) (see Figure 14).

**Figure 14. Aggregated response count to Question 3.9, ‘If you answered Option 1 to Question 3.8, which secondary database do you think reporting should be in accordance with for cement and concrete?’ (select one).**

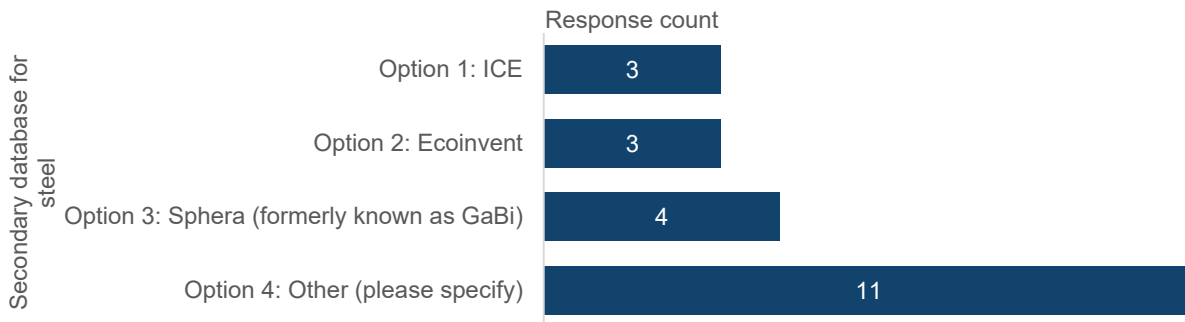


There were 20 responses to the open-text question. Respondents who chose ‘other’ largely did so because they preferred sector-specific or UK- or EU-aligned databases. Those who selected the ICE (Option 1) cited its UK-specific nature, widespread use in the construction sector, familiarity among users and its transparency, open access and frequent updates, which were seen as supporting traceability and higher quality data. Respondents who preferred Ecoinvent (Option 2) noted its common use in EPDs, broad material coverage and lower cost compared with Sphera (formerly GaBi). However, a small proportion criticised Ecoinvent for not being UK-specific and therefore less representative of UK industrial production. This concern was also raised in relation to Sphera (Option 3). A small proportion selected Sphera but did not provide reasoning for their choice. A similar proportion suggested that Ecoinvent and Sphera were equally suitable.

**Question 3.10 If you answered Option 1 to Question 3.8, which secondary database, do you think reporting should be in accordance with for steel? Please explain your reasoning.**

There were 21 responses to the single-choice question. The largest group of respondents (11 respondents) selected ‘Other’ (Option 4). Smaller numbers selected named databases, including ‘Sphera’ (Option 3; 4 respondents), ‘ICE’ (Option 1; 3 respondents), and ‘Ecoinvent’ (Option 2; 3 respondents) (see Figure 15).

**Figure 15. Aggregated response count to Question 3.10, ‘If you answered Option 1 to Question 3.8, which secondary database do you think reporting should be in accordance with for steel?’ (select one).**



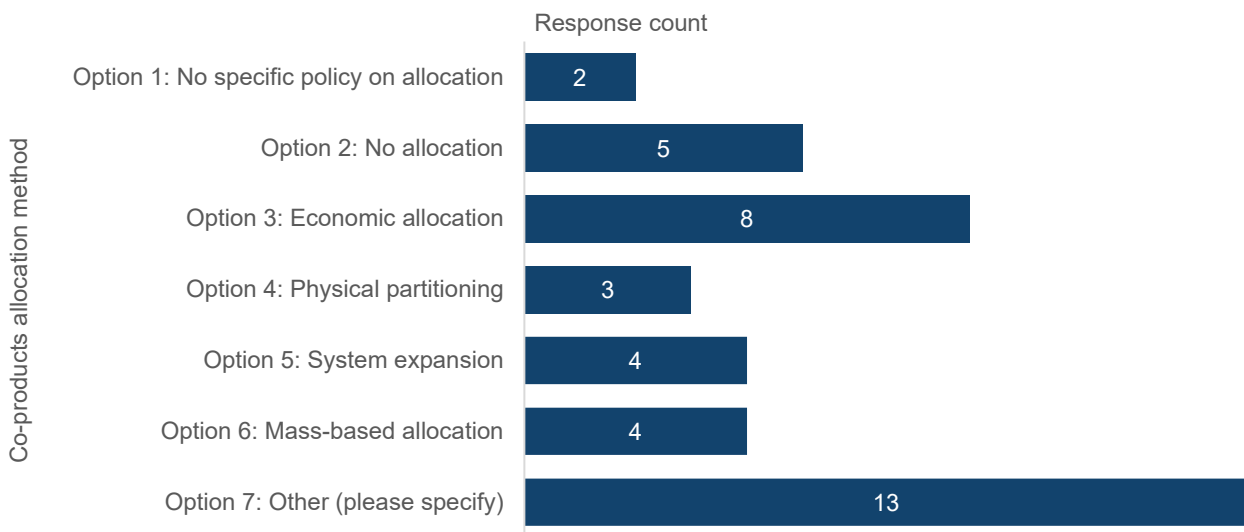
The open-text question received 18 responses. Respondents who selected ICE (Option 1), emphasised the importance of simplicity and ease of use, which they felt would reduce administrative burden. Respondents also noted that its broad scope made it more likely to include the required data. Those who selected Ecoinvent (Option 2), cited its broad material coverage, availability of compliant data sets, common use in EPDs and lower cost compared with Sphera (Option 3). Respondents highlighted Sphera’s widespread use in the steel sector, noting its detailed, industry specific datasets covering global supply chains, steel grades and processing methods. However, a small proportion noted that its high licencing costs could limit use, particularly for SMEs. More than half of steel sector respondents selected, or positively referenced, Ecoinvent or Sphera, noting that both are widely used and respected across industry.

### Allocation methodologies and emissions reporting rules (Questions 3.11 to 3.13)

**Question 3.11 Separate to the specific rules of product classifications; do you consider that the EERF guidance should specify a particular allocation of co-products method and if so what method? Please explain your reasoning.**

There were 26 responses to the single-choice question. The most commonly selected method was ‘Economic allocation’ (Option 3), chosen by 8 respondents. Smaller numbers supported ‘No allocation’ (Option 2; 5 respondents), ‘System expansion’ (Option 5; 4 respondents), and ‘Mass-based allocation’ (Option 6; 4 respondents). Few respondents selected ‘Physical partitioning’ (Option 4; 3 respondents) or ‘No specific policy on allocation’ (Option 1; 2 respondents) (see Figure 16).

**Figure 16. Aggregated response count to Question 3.11, ‘Separate to the specific rules of product classifications, do you consider that the EERF guidance should specify a particular allocation of co-products method and if so what method?’ (select one).**



There were 46 responses to the open-text question. Respondents highlighted the alignment of economic allocation (Option 3) with EN 15804, ISO 14044 and ISO 21930 and its widespread use in EPDs as advantages. A small proportion suggested that economic allocation incentivises decarbonisation and is the most practical, accurate and transparent option. However, a similar proportion cautioned that price volatility could undermine comparability and recommended that the EERF require transparent disclosure of price data, sources and assumptions.

Respondents who chose system expansion (Option 5) noted its value in accounting for avoided emissions and comparing steel by-products, though a similar proportion highlighted its complexity and data demands. Mass-based allocation (Option 6) was favoured for its simplicity and established use. Respondents who favoured having no specific policy on allocation (Option 1) or no allocation (Option 2), assigned all burdens to the principal product for maximum transparency, warning that allocation can be ineffective for some industries or lead to unintended consequences. Finally, a similar proportion of respondents recommended alternative allocation methods (Option 7) including hybrid or sector-specific approaches, arguing that allocation is not one-size-fits-all. Respondents stressed the need for alignment with international standards, transparency, and avoiding double counting.

**Question 3.12 Do you agree or disagree with the proposal that both net and gross emissions figures from production should be reported in the EERF guidance? Please explain your reasoning.**

There were 48 responses to this question. Most respondents agreed with the proposal that both net and gross emissions figures should be reported in the EERF guidance, with 27 respondents ‘Agreeing’ and 11 strongly ‘Agreeing’. Seven respondents were ‘Undecided’, while 3 ‘Disagreed’.

**Question 3.13 Do you agree or disagree with this proposal to use gross emissions (which include emissions from non-biogenic waste) when a single emissions figure is required? Please explain your reasoning.**

There were 43 responses to the single-choice question. Most respondents agreed with the proposal to use gross emissions when a single emissions figure is required, with 18 respondents 'Agreeing' and 13 'Strongly agreeing'. Ten respondents were 'Undecided', while 2 'Disagreed'.

There were 37 responses to the open-text question. Respondents in favour viewed gross emissions as more comprehensive, transparent and consistent, noting they capture broader environmental impacts, simplify product comparison and better reflect the use of non-biogenic waste fuels. A minority of respondents favoured gross emissions because they align with the GHG Protocol and integrate easily into LCAs. The most common argument against the use of gross emissions was that they do not align with international standards, with a small proportion pointing to EN 15804 and ISO 21930, which typically reference net emissions. Respondents also cautioned that gross emissions could disincentivise the use of non-biogenic waste fuels. A small proportion argued that different emissions metrics suit different purposes and stressed the importance of clarity for buyers, alignment with international standards, and further stakeholder engagement. Respondents also recommended that the EERF distinguish between emissions intensive waste utilisation and genuine carbon removal or circularity innovations.

**Standards, coordination and further methodological requirements (Questions 3.14 to 3.15)**

**Question 3.14 Do you agree or disagree with the proposed guidance recommending reporting the embodied emissions of products in accordance with BS EN 15941? Please explain your reasoning.**

There were 45 responses to the single-choice question. A majority 'Agreed' (23 respondents) or 'Strongly agreed' (13 respondents) with the government's proposal. Eight respondents were 'Undecided', while one respondent 'Disagreed'. No respondents 'Strongly disagreed'.

There were 37 responses to the open-text question. From these, around half noted that the proposal could support more accurate and credible reporting. A small proportion of respondents highlighted that BS EN 15941 offers a clear and comprehensive methodology tailored to the construction sector. A minority added that it aligns well with existing frameworks and standards and could improve transparency, making product comparison easier. A small proportion suggested that the approach could be extended to other sectors over time as the standard covers a wide range of materials and provides a consistent basis for broader reporting requirements. A small proportion were undecided, citing limited familiarity with BS EN 15941 or uncertainty about how it compares with other standards. These respondents emphasised the importance of ensuring that any chosen standard is accessible to smaller producers, supported by clear government guidance, and accompanied by transparency around data sources and claims. A small proportion of respondents explicitly disagreed with

the proposal, expressing concern that adopting the standard could introduce unnecessary complexity and potentially hinder decarbonisation progress.

**Question 3.15 Considering the objectives of this section and the proposed emissions reporting guidance, are there any other methodological areas where respondents think there needs to be a consistent or coordinated approach, or other considerations that the government should be aware of?**

There were 37 responses to this open-text question. Respondents highlighted the need for greater consistency in steel sector emissions reporting, particularly for crude steel emissions and scrap use percentages, due to variation across existing standards and product classifications. They also emphasised the need for clearer guidance on how PCRs should supplement BS EN 15804 and encouraged greater convergence of PCRs. A small proportion proposed chain of custody approaches government could reference, including worldsteel guidelines and book and claim for EPDs.

A small proportion of respondents raised the need for consistent biogenic carbon accounting, recommending reporting of gross emissions figures. Others emphasised the importance of consistent reporting of module D to support circular economy objectives, alongside clear definitions of what constitutes recycling within the EERF.

Respondents frequently called for government guidance on reporting and assessing uncertainty in life cycle data to enable accurate comparisons. A small proportion recommended referencing the UK Accreditation Service (UKAS) to support robust emissions verification. A minority suggested appointing an expert body to oversee and review the EERF and stressed alignment with related frameworks such as the Low Carbon Hydrogen Standard, the EU CPR 2024 and UK CPR, and both the UK and EU CBAM and ETS. A small proportion of respondents noted opportunities to learn from approaches adopted in countries such as the Netherlands and France.

## Policy decisions and next steps

The government acknowledges respondents' views on these technical elements of the EERF guidance. Respondents provided a wide range of detailed suggestions and evidence, which will support the government's understanding and help inform the development of the EERF elements of the guidance.

Across the questions in this chapter, respondents highlighted the need for a more standardised and comparable approach to measuring and reporting embodied emissions data, aligned with recognised international standards. For some questions there was a clear or emerging preference for a particular option, while responses to other questions were split. Decisions on which approach the government could endorse for the methodological and technical issues consulted on in this chapter will be set out in the forthcoming guidance, following additional policy work.

The government welcomes respondents' views that verification is essential to ensuring the credibility of, and confidence in, reported emissions data. Respondents expressed a wide range of views on the robustness and suitability of the current EPD verification system. The government will continue to explore options to improve current EPD verification process and verification capacity in the market.

The government welcomes the overall support for the EERF elements of the guidance to endorse ISO 14025 and EN 15804. Respondents viewed these standards as the best way to support fair product comparison, provide accurate and comprehensive carbon accounting and avoid duplicative reporting burdens.

The government acknowledges that there was no consensus on which option the EERF elements of the guidance should recommend in relation to secondary data. While the use of a single source of secondary data was seen as having potential benefits for consistency and comparability, concerns were raised about the cost of accessing databases and whether a single database could provide sufficiently comprehensive and dynamic data, particularly if open source. Respondents also highlighted the potential benefits of allowing a broader range of secondary databases. The government will consider these views further as part of ongoing policy development. The government also welcomes the broad support for the EERF elements of the guidance to recommend reporting embodied emissions of products in line with the new BS EN 15941 standard on data quality on EPDs.

The government acknowledges that respondents expressed a particularly wide range of views on which allocation of co-products method the EERF elements of the guidance should endorse. Views on the benefits, risks and consequences of particular approaches will inform further work on this issue.

# Chapter 4: An embodied emissions reporting framework IT system

## Chapter overview

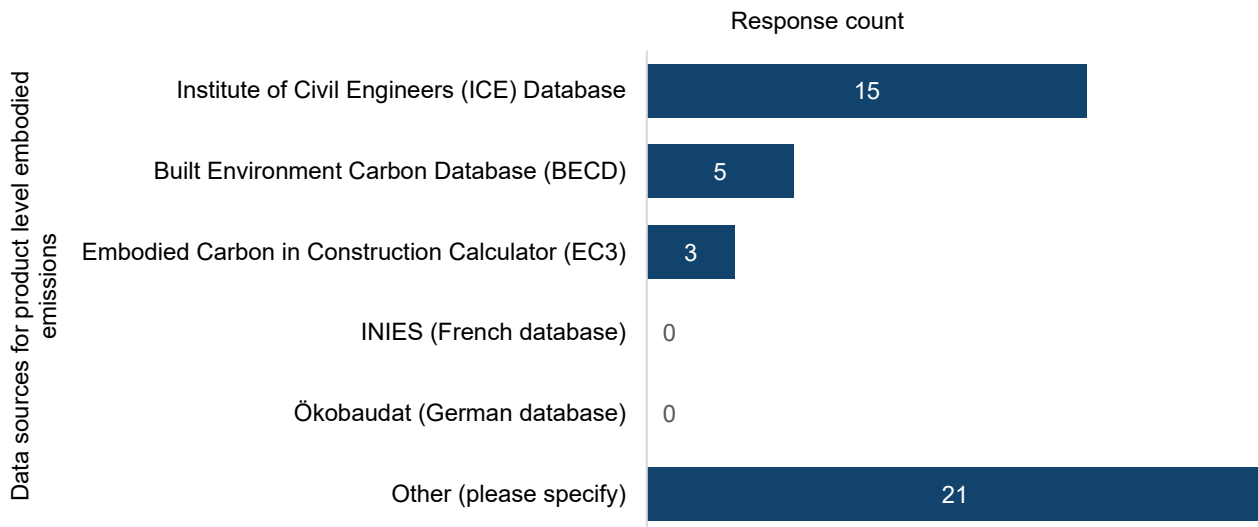
This chapter outlined the potential role of an IT system to support the EERF. This included proposals for a centralised database to simplify reporting and support product comparison, accompanying tools to support data publication, reporting, comparison and product benchmarking, and proposals for a life cycle emissions inventory. It set out that an IT system would be essential for enabling the reporting of product-level embodied emissions, and could help producers demonstrate compliance whilst giving buyers, including designers, access to data to support lower carbon choices. The system could reduce administrative burden associated with reporting and comparing embodied emissions information, particularly for SMEs. The government considered a centralised database.

## Sources of embodied emissions data (Questions 4.1 to 4.2)

### **Question 4.1 Where do you currently get data for product-level embodied emissions reporting from?**

There were 44 responses to the multiple-choice question. Around half of respondents (21 respondents) selected 'Other', indicating a wide range of alternative data sources in use. This was followed by the 'Institute of Civil Engineers (ICE) Database' (15 respondents), the 'Built Environment Carbon Database (BECD)' (5 respondents) and the 'Embodied Carbon in Construction Calculator (EC3)' (3 respondents). No respondents selected 'INIES' or 'Ökobaudat' (see Figure 17).

**Figure 17. Aggregated response count to Question 4.1, ‘Where do you currently get data for product-level embodied emissions reporting from?’ (select all that apply).**



There were 35 responses to the open-text question. A minority of respondents noted that the diversity of options reflects differing purposes, scopes and rules across existing databases, while a small proportion highlighted that no single source meets all needs and that some datasets are out of date. A minority of respondents reported using multiple sources, including bespoke or inhouse systems. Other data sources mentioned included One Click LCA, Ecoinvent, CESMM4 (the Civil Engineering Standard Method of Measurement) and various national databases. A small proportion of respondents from sectors such as steel, cement and chemicals observed that the listed databases are primarily construction focused and that their reporting relies more heavily on sector-specific or industry provided datasets.

**Question 4.2 What limitations, if any, do you or your business currently face when accessing or publishing product-level embodied emissions data?**

There were 43 responses to this open-text question. Respondents reported a range of limitations when accessing or publishing product-level embodied emissions data with no single issue dominating. A minority of respondents highlighted data quality challenges, including products lacking up-to-date or verified emissions data, reliance on generic or industry EPDs that differ from the required product, and databases that depend heavily on averages. A small proportion also noted that UK producers cannot use UK-specific energy and fuel data because data provided by the Department for Environment Food and Rural Affairs (Defra) do not comply with EPD requirements.

A minority of respondents raised concerns about data consistency, citing differences in methodologies, units, system boundaries and variation across secondary datasets which can hinder meaningful comparison. A minority also reported that data can be expensive, time consuming or difficult to access. These respondents stated that collecting, verifying and publishing data is resource intensive and requires technical expertise, financial investment and significant time, limiting the frequency and breadth of reporting. A small proportion of

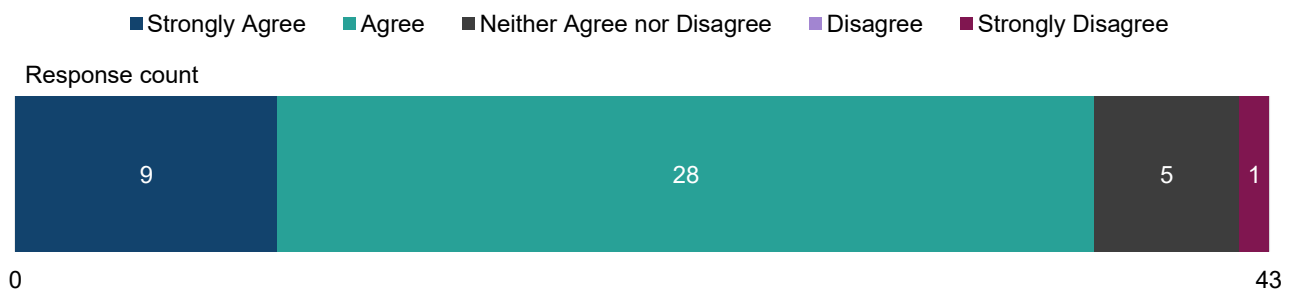
respondents from primary industrial sectors noted that they rely on established industry-specific datasets and expressed concerns about duplication.

## UK data repositories and inventories (Questions 4.3 to 4.4)

### **Question 4.3 Do you agree or disagree that a UK repository for embodied emissions data could help your business report emissions data? Please explain your reasoning.**

There were 43 responses to the Likert scale question. Most respondents 'Agreed' (28 respondents) or 'Strongly agreed' (9 respondents) with the creation of a UK repository for embodied emissions data. Five respondents 'Neither agreed nor disagreed' and one respondent 'Strongly disagreed' (see Figure 18).

**Figure 18. Aggregated response count to Question 4.3, 'Do you agree or disagree that a UK repository for embodied emissions data could help your business report emissions data?' (select one).**

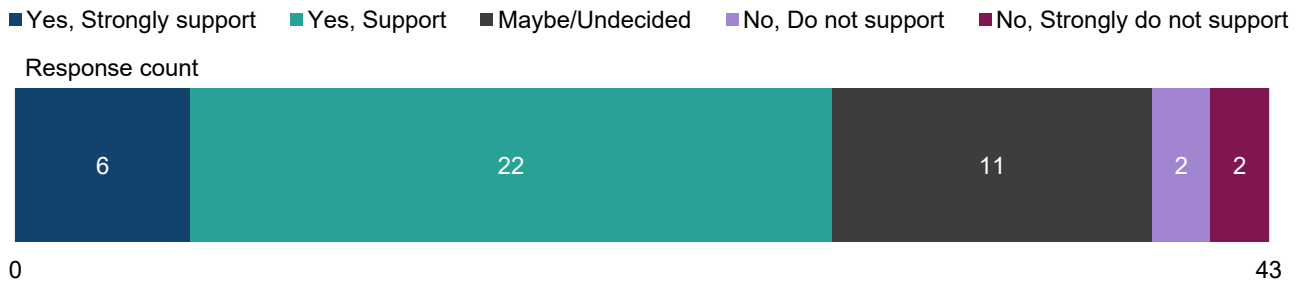


There were 44 responses to the open-text question. Respondents stated that a central repository could reduce administrative burden, improve comparability and consistency, and help ensure that data is high quality and regularly updated. A minority of respondents expressed conditional or caveated support, noting that a UK repository should interact effectively with existing databases and that their support depended on whether the repository delivers its intended objectives. A small proportion of respondents questioned the need for an additional repository, noting that several databases already exist and arguing that the rationale for creating another source of data is unclear.

### **Question 4.4 Should the UK produce its own life cycle inventory with regularly updated, regionally specific data? This could be built from scratch or built upon existing inventories. Please explain what you think the benefits of this could be or if you have any concerns. Please provide specific examples and details on how these issues impact the completion of life cycle analysis.**

There were 43 responses to the Likert scale question. The majority of respondents 'Supported' (22 respondents) or 'Strongly supported' (6 respondents) the proposal, while 11 respondents were 'Undecided'. A small proportion of respondents 'Did not support' (2 respondents) or 'Strongly did not support' (2 respondents) the proposal (see Figure 19).

**Figure 19. Aggregated response count to Question 4.4, ‘Should the UK produce its own life cycle inventory with regularly updated, regionally specific data?’ (select one).**



There were 43 responses to the open-text question. Respondents suggested that a UK LCI could reduce administrative burden, support data consistency and improve the quality of LCAs. However, respondents noted that maintaining a high quality LCI would require significant input and resources and emphasised that any UK system should remain interoperable with European datasets to avoid duplication and misalignment. A small proportion of respondents cautioned that introducing a new LCI could add complexity or confusion to the market. Respondents also noted that the degree of regional specificity achievable within the UK may be limited, reducing the potential benefits of a distinct UK LCI compared with one aligned with European trade partners.

#### Tools and benchmarking for reporting (Questions 4.5 to 4.7)

**Question 4.5 Would a product benchmarking tool that interacts with the proposed product-level embodied emissions reporting database be helpful in making meaningful product comparisons and informing buying decisions? Please explain your reasoning.**

There were 48 responses to the Likert scale question. Just over half of respondents ‘Agreed’ (26 respondents) or ‘Strongly agreed’ (6 respondents) with the development of a product benchmarking tool that interacts with the proposed product-level embodied emissions reporting database. Nine respondents were undecided, while 5 ‘Disagreed’ and 2 ‘Strongly disagreed’.

There were 45 responses to the open-text question. Respondents noted that a product benchmarking tool could help simplify the use of emissions data in decision-making, promote transparency and competition, strengthen confidence in how information has been generated and enable users to differentiate their products. A small proportion of respondents were unsure of its value, noting that a range of benchmarking tools already exist, including industry-specific tools that meet the needs of sectors. A small proportion of respondents also highlighted limitations of benchmarking, observing that product-level comparisons may not account for functional equivalence at the building- or project-level, meaning that apparent carbon savings at the product-level could lead to unintended carbon increases once integrated into wider design or project decisions.

**Question 4.6 What tools, such as an EPD generator or a product carbon tool, if any, do you currently use when producing embodied emissions data? Please provide details of the features and benefits.**

There were 28 responses to the Likert scale question. Ten respondents selected 'EPD generator tools' (Option 1) and one respondent selected 'product carbon tool' (Option 2). The majority of respondents (17 respondents) chose 'Other' (Option 3).

There were 31 responses to the open-text question. No clear pattern emerged in the tools used. Respondents referenced a mix of commercially available tools, including One Click LCA, and government-developed tools, such as the Environment Agency's carbon tools for infrastructure assets. A minority of respondents stated that they use in-house models built using specialist software to meet specific operational needs. A small proportion of respondents also highlighted issues with existing tools, including high costs and significant resource requirements, noting that some tools can make the process of producing emissions data more complex rather than simplifying it.

**Question 4.7 What tools, such as an EPD generator or a product carbon tool, if any, should government explore producing to reduce the administrative burden of producing EPDs? Please provide details of the features and benefits.**

There were 40 responses to this open-text question. Just over half of respondents stated that government-produced tools, such as an EPD generator or product carbon tool, could help reduce the administrative burden of producing EPDs by providing consistent, standardised and verified inputs, giving users a clear structure and supporting more reliable and streamlined reporting.

There was no clear pattern in the specific tools suggested. Respondents proposed that any government-developed tools should integrate or be compatible with existing systems and should not duplicate functionality already available through commercial or industry tools. A minority of respondents highlighted concerns about developing new government tools and noted that creating a robust tool could require significant resources, including the introduction of PCRs. It was also suggested that it may be too early for such an undertaking. A small proportion emphasised that several tools already exist and questioned whether a new tool would be suitable for all industries.

## Policy decisions and next steps

The government welcomes respondents' views on the sources they currently use for product-level embodied emissions data, as well as the limitations they face in accessing or publishing this data. Respondents mentioned a broad range of data sources, with no clear preferred source emerging. The government notes stakeholders' views that different sources of data have varying purposes, rules and scope and therefore multiple sources are needed for different objectives. Respondents also highlighted a range of limitations, including poor quality or inconsistent data, as well as the availability, cost and commercial sensitivity of data.

The government would like to thank respondents for their detailed input on whether a UK repository for embodied emissions data could support businesses in reporting their emissions data. Having considered the evidence submitted, alongside the findings from the digital

discovery project, the government confirms that it will continue to explore digital solutions to enable producers to report product-level data and support buyers to better compare products and make informed purchasing decisions. The government does not intend to build a database from scratch but will continue to explore solutions that build on existing databases.

The government will further explore the need for, and feasibility of, producing a government-led life cycle inventory (LCI), as well as related tools and benchmarking for embodied emissions reporting. Further policy development and ongoing engagement with stakeholders will build on consultation responses and the findings from the digital discovery project, which recommended developing the proposal for a UK-specific LCI as a priority.

# Chapter 5: Product classifications for embodied emissions

## Chapter overview

This chapter set out how product classifications would provide a structure for distinguishing between lower and higher emission products by applying thresholds and bandings based on embodied emissions. It noted that classifications could include ratings such as A to G to support like-for-like comparison, help buyers understand the climate impact of products and to support meaningful comparison between products.

### Use and adoption of product classifications (Questions 5.1 to 5.4)

**Question 5.1 Do you currently use any form of product classifications, whether as a manufacturer, supplier, or buyer? If yes, please specify which one(s)?**

There were 49 responses to the single-choice question. The majority of respondents (31 respondents) stated that they do use product classifications, while 18 respondents reported they do not.

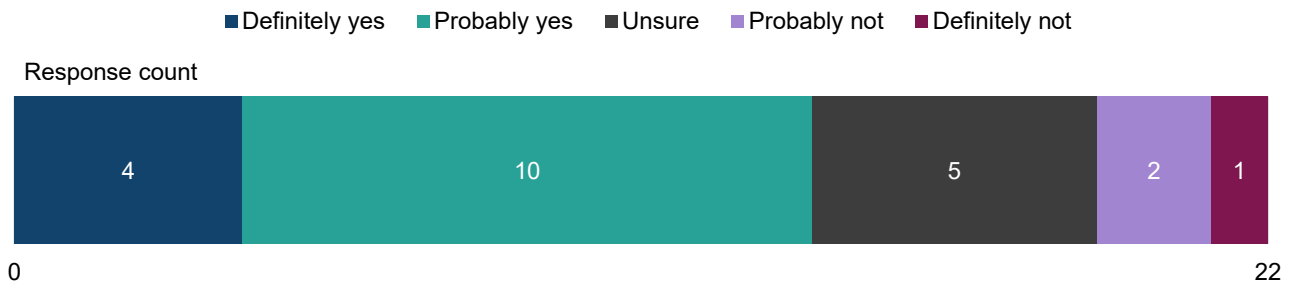
There were 39 responses to the open-text question. Respondents named a range of product classifications in use, with Arup-UKRI's Universal Classification referenced most often. One of the reasons provided for using Arup-UKRI's model was its inclusion, alongside the GSCC's product standard, in the Construction Leadership Council's (CLC) Five Client Carbon Commitments. Other product classifications highlighted included ResponsibleSteel Decarbonisation Progress Levels (DPLs), Low Emission Steel Standard (LESS) and the CARES SCS scheme for steel, as well as the Global Cement and Concrete Association's (GCCA) concrete framework. Respondents also reported using alternative product-specific information such as EPDs.

Where respondents provided reasons for using a product classification, the most common motivation was to adhere to an established industry standard, certification, or regulatory requirement. A small proportion of respondents referenced improving visibility and traceability of emissions data as key drivers for adopting product classifications.

**Question 5.2 If you answered no to Question 5.1, are you interested in starting to use product classifications? Please explain your reasoning, and details of any potential benefits, barriers, or challenges (such as financial implications) you foresee.**

There were 22 responses to the Likert scale question. The majority of respondents (14 respondents) stated they would 'Definitely' or 'Probably' be interested in starting to use product classifications. Five respondents were unsure, and fewer indicated they would 'Probably' (2 respondents) or 'Definitely' (one respondent) not (see Figure 20).

**Figure 20. Aggregated response count to Question 5.2, ‘If you answered no to Question 5.1, are you interested in starting to use product classifications?’ (select one).**



There were 22 responses to the open-text question. The most commonly cited benefit, raised by a minority of respondents, was that product classifications could support internal procurement policies. Additional advantages highlighted included simplifying information, making it easier to identify low carbon products and enabling product comparison.

A minority of respondents said they would consider using product classifications only if certain criteria were met. These included low administrative burden, alignment with existing standards, continued availability of quality data, and, for steel, the adoption of a scrap sliding scale (also known as a ‘sliding scale’) product classification.

Arguments against using product classifications included barriers related to setup costs and accurate classification. Views on the appropriate level of specificity varied: a small proportion favoured a universal or cross-sectoral product classification, while a similar number of respondents argued that comparing different products using a single model would be challenging.

**Question 5.3 Is there anything that the government should consider regarding its intention to use existing, sector-specific product classifications, rather than develop its own (including any single, cross-sector model)?**

There were 57 responses to this open-text question. Respondents generally supported the government’s intention to use existing, sector-specific product classifications, suggesting that this approach builds on established industry practice, avoids duplication and reduces disruption for businesses already using recognised systems.

Respondents highlighted both advantages and disadvantages of using sector-specific classifications, while relatively few supported the use of single cross-sector models. A small proportion of respondents emphasised that sector-specific classifications capture the technical distinctiveness of different materials, while others cautioned that multiple systems could create interoperability challenges, increase administrative effort and hinder comparison of products across sectors, particularly in complex projects.

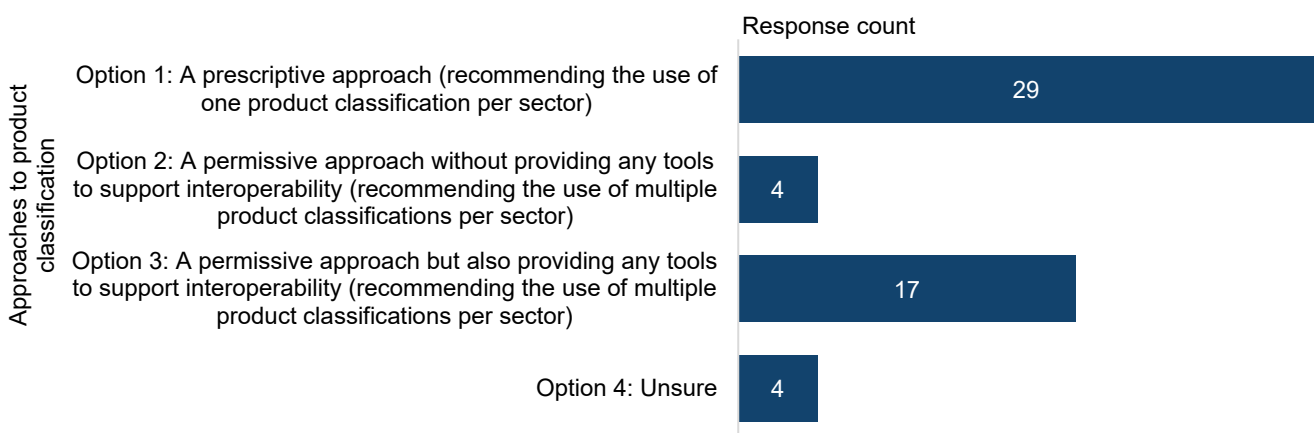
A minority of respondents raised practical considerations for implementation, including the need to ensure compatibility with procurement and digital systems and to avoid unintended

market distortions such as disadvantaging domestic producers or smaller suppliers. A small proportion of respondents stressed that whichever model is adopted, product classifications must be robust, transparent and based on consistent methodological standards. They highlighted the importance of alignment with recognised LCA frameworks, coherence with EU and international standards and flexibility to accommodate evolving sector practices and emerging technologies, including CCUS.

**Question 5.4 Which option for the approach to product classifications would be most appropriate as a basis of green procurement policies? Please explain your reasoning.**

There were 54 responses to the single-choice question. Just over half of respondents (29 respondents) preferred ‘A prescriptive approach (recommending the use of one product classification per sector)’ (Option 1). Seventeen respondents chose ‘A permissive approach with tools to enable interoperability’ (Option 3) and 4 respondents selected ‘A permissive approach without providing any tools to support interoperability’ (Option 2). A further 4 respondents were ‘Unsure’ (Option 4) (see Figure 21).

**Figure 21. Aggregated response count to Question 5.4, ‘Which option for the approach to product classifications would be most appropriate as a basis of green procurement policies?’ (select one).**



There were 44 responses to the open-text question. Arguments in favour of a prescriptive approach (Option 1) included that a single mandated model would improve clarity, ensure consistency, reduce confusion for buyers and support more accurate comparisons within and across markets. A small proportion also felt this approach would help tackle greenwashing.

There was no clear reasoning provided by those favouring permissive approaches (Options 2 and 3). A small proportion of respondents highlighted that Option 3 would retain flexibility while still allowing meaningful comparison between different models. They noted that this approach aligns well with existing industry practices, particularly in the steel sector, and would allow suppliers to continue using recognised certification schemes. A small proportion noted that a permissive framework may require adjustments to reflect differences between product types, while others suggested it could act as an interim step before moving towards a more prescriptive model once alignment and supporting tools improve. A similar proportion raised

broader concerns about the suitability of current product classification models for UK steel producers.

## Steel product classifications (Questions 5.5 to 5.18)

**Question 5.5 Are there any other steel product classification options that the government has not identified and should consider as potentially suitable, in particular for use in green procurement policies? If so, please provide details.**

There were 15 responses to this open-text question. A minority of respondents stated that they were not aware of alternative steel product classifications beyond those already identified or felt that the main models had been captured.

Where additional options were referenced, these included the European Steel Association's (EUROFER) product classification system, the CARES SCS scheme and India's Green Steel Taxonomy. A small proportion of respondents suggested looking at the EU's Product Environmental Footprint (PEF) and the ESPR as potential future reference points. Others proposed considering non-product classification options, such as international standards including ISO 4948, ISO 4992 and ISO 20915, due to their global consistency and product-specific focus.

**Question 5.6 Do you agree or disagree that the above is an accurate understanding of the key differences between steel product classifications? Please explain your reasoning, and if any other differences should be considered.**

There were 29 responses to the Likert scale question. Over half of respondents 'Agreed' (16 respondents) or 'Strongly agreed' (one respondent) that the consultation accurately outlined the key differences between the identified steel product classification options. Ten respondents were 'Undecided', one respondent 'Disagreed' and one 'Strongly disagreed'.

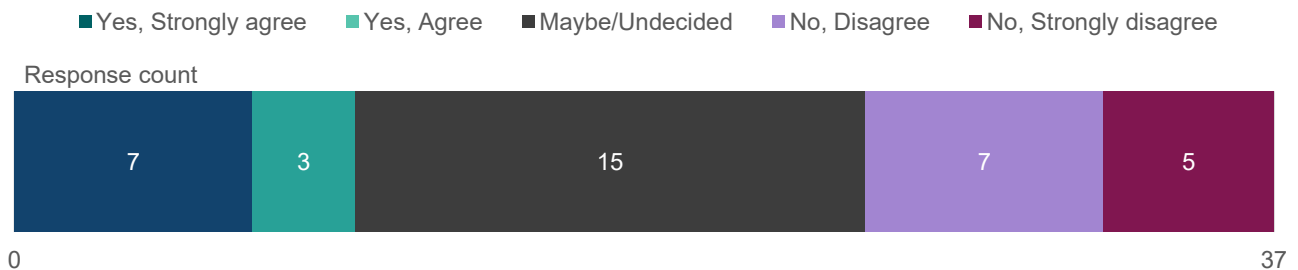
There were 16 responses to the open-text question. A minority of respondents highlighted additional differences they felt should be considered. These included operational and technological factors, such as the evolving nature of sustainability criteria within product classifications and how models integrate with digital tools for traceability. A small proportion of respondents pointed to variations in emissions reporting methodologies, including approaches to co-product allocation, scrap allocation, secondary data use and verification as further differences. Others emphasised the importance of governance processes, such as stakeholder involvement in model development, which can influence the robustness and credibility of product classifications.

**Question 5.7 Do you agree or disagree that the government should use a steel product classification that uses a scrap sliding scale? Please explain your reasoning.**

There were 37 responses to the Likert scale question. There was no clear consensus on whether the government should adopt a steel product classification that uses a scrap sliding scale. Just under half of respondents (15 respondents) were 'Undecided'. Ten 'Agreed' (3

respondents) or ‘Strongly agreed’ (7 respondents), while 12 respondents ‘Disagreed’ (7 respondents) or ‘Strongly disagreed’ (5 respondents) (see Figure 22).

**Figure 22. Aggregated response count to Question 5.7, ‘Do you agree or disagree that the government should use a steel product classification that uses a scrap sliding scale?’ (select one).**



There were 35 responses to the open-text question. Respondents argued that a sliding scale could drive decarbonisation more fairly across both primary and secondary steelmaking by reflecting the limited availability of scrap and its inability to meet global demand. Respondents suggested that the approach could promote more effective circularity, improve assessment of scrap use in electric arc furnace (EAF) production and help avoid unintended consequences such as resource shuffling, restricted access to scrap, or inflated scrap prices. The main arguments against a sliding scale focused on concerns that it could distort what is considered low emission steel and reduce comparability between products. A minority of respondents argued that it may not incentivise decarbonisation across the full sector, particularly if it fails to drive progress in primary steelmaking. A small proportion also warned that the approach could undermine technology neutrality, disadvantage scrap EAF producers, reduce usability for buyers and affect scrap quality if used to assess circularity.

A small proportion emphasised that, if a sliding scale were adopted, additional requirements would be essential. These included clear disclosure through EPDs, tailored thresholds for different product categories and regular updates to reflect technological and market changes. A similar proportion highlighted the importance of ensuring that any approach aligns with the UK’s broader decarbonisation trajectory, supports domestic circularity and remains coherent with wider government policies such as the Steel Strategy.

**Question 5.8 Is there anything else the government should consider regarding ResponsibleSteel Decarbonisation Progress Levels (DPLs), or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 24 responses to this open-text question. Respondents focused primarily on the implications of the ResponsibleSteel DPLs system boundary, highlighting benefits, limitations and additional considerations for government.

Respondents identified the crude steel system boundary as a key advantage, noting that it can improve comparability across steel products. Concerns were raised about the boundary not including hot rolled emissions, though a small proportion observed that most emissions occur at the crude steel stage, reducing the significance of this issue. Further advantages highlighted

included the coverage of critical methane emissions, the robust governance process underpinning the model and potential market access benefits due to the DPLs' global recognition. Additional disadvantages raised included the administrative and cost burden associated with complex verification and certification requirements, particularly given that the DPLs sit within the broader ResponsibleSteel International Production Standard. A small proportion questioned whether the four thresholds sufficiently incentivise decarbonisation and noted that the entry point may be unachievable for many sites, potentially limiting certified supply and affecting domestic competitiveness.

Respondents suggested that, if DPLs are used, government should provide clear procurement guidance and require supplementary disclosures such as product carbon footprints and interoperability data aligned with the Steel Standards Principles (SSP).

**Question 5.9 Do you believe that the emissions reporting and verification requirements to use the ResponsibleSteel Decarbonisation Progress Levels (DPLs) are robust and appropriate for use in green procurement policies, or not? Please explain your reasoning.**

There were 26 responses to the Likert scale question. Half of respondents (13 respondents) considered the ResponsibleSteel DPLs to be robust and appropriate for use in green procurement policies (7 'Somewhat robust and appropriate', and 6 'Very robust and appropriate'). Eight respondents were 'Undecided', while a smaller number felt the requirements were not robust or appropriate (3 'Somewhat not robust or appropriate', and 2 'Not robust or appropriate at all').

There were 21 responses to the open-text question. Of those who viewed the requirements as robust, some respondents highlighted the strength of the methodology, the value of third-party verification, improved comparability due to reporting at the crude steel stage and the inclusion of methane emissions within the emissions scope. A minority of respondents also valued international alignment, noting that the model follows established standards development procedures. A small proportion emphasised the usefulness of the DPLs' market facing claims for procurement decisions.

Those who viewed the requirements as not robust or appropriate most pointed to the exclusion of downstream emissions, which they felt limits accurate comparison of finished products. A minority also noted the administrative and cost burden associated with the broader ResponsibleSteel certification scheme. A small proportion of respondents suggested supplementing DPLs with PCFs or improving verification processes and alignment with other national and international standards.

**Question 5.10 Is there anything else the government should consider regarding Low Emission Steel Standard (LESS), or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 18 responses to this open-text question. Respondents agreed with many of the advantages and disadvantages set out in the consultation, with several sharing additional disadvantages of LESS.

Respondents agreed that LESS being operational is an advantage, noting the ability for producers to be verified and the model's potential to incentivise decarbonisation. Respondents reiterated concerns about the system boundary not including downstream emissions and emphasised the importance of the UK differentiating itself in this area for competitiveness. However, a small proportion of respondents disagreed with this disadvantage, observing that most emissions are captured within the existing boundary.

A small proportion highlighted additional disadvantages. The most significant point raised was that the stringent thresholds could negatively impact SMEs and undermine domestic competitiveness. A small proportion of respondents also questioned the appropriateness of the model's German and EU centric design for the UK context. Other disadvantages included the omission of methane emissions and concerns that the scrap sliding scale does not sufficiently incentivise decarbonisation. A small proportion criticised the credibility of the development process due to limited multistakeholder input and perceived noncompliance with World Trade Organisation (WTO) rules for international standards.

Respondents suggested that, if LESS is used, the government should consider tightening requirements over time and exploring complementary mechanisms such as a system that allows transfer of credits between producers to incentivise decarbonisation. A small proportion of respondents emphasised the need for guidance and technical assistance to support organisations to effectively use the model.

**Question 5.11 Do you believe that the emissions reporting and verification requirements to use Low Emission Steel Standard (LESS) are robust and appropriate for use in green procurement policies, or not? Please explain your reasoning.**

There were 25 responses to the Likert scale question. Just over half of respondents (14 respondents) felt that the emissions reporting and verification requirements to use the LESS were 'Very' (3 respondents) or 'Somewhat' (11 respondents) robust and appropriate for use in green procurement policies. Six respondents were undecided, while 5 respondents felt the requirements were not robust or appropriate (2 'Somewhat not robust or appropriate', and 3 'Not robust or appropriate at all').

There were 14 responses to the open-text question. Respondents highlighted strengths such as independent third-party verification, a thorough certification process and alignment with international standards. A small proportion valued the use of EPDs or PCFs for labelling, which they felt enhanced transparency, as well as the inclusion of hot rolled emissions within the system boundary to broaden the emissions scope.

Of those who viewed the requirements as not robust or appropriate, some respondents pointed to methodological features they felt could undermine transparent procurement decisions, including concerns about the scrap sliding scale approach, the absence of absolute emissions data for evidence-based purchasing and perceptions that the model is overly complex. A small proportion of respondents suggested supplementary reporting such as disclosing full life cycle emissions, while others proposed improving data accessibility and standardising the verification process.

**Question 5.12 Is there anything else the government should consider regarding the Global Steel Climate Council's (GSCC) product standard, or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 17 responses to this open-text question. Respondents interpreted the same features of the GSCC product standard differently, with a small proportion of respondents viewing elements as advantages that others viewed as disadvantages, and most respondents sharing additional disadvantages.

A small proportion of respondents noted that the GSCC model aligns with ambitious climate change targets, while others argued that the dynamic approach to setting thresholds could undermine decarbonisation goals. A small proportion of respondents supported the advantage of setting different emissions thresholds to reflect variations in product composition, whereas others felt the model misrepresents technological capabilities by implying that both products can be produced via an EAF. A small proportion of respondents also highlighted additional advantages such as robust and verifiable emissions reporting and the non-sliding scale structure. However, a minority of respondents viewed the non-sliding scale as a disadvantage as it does not reflect limited scrap availability or sufficiently incentivise decarbonisation.

Another key concern raised was that the model was developed by U.S. EAF steelmakers and therefore favours scrap EAF producers over blast furnace producers, which could be challenging for the UK. Other disadvantages included increased administrative burden, especially for SMEs, and views that the standard is not suitable for procurement due to its emissions reporting boundary (not focusing on cradle to gate emissions) and limited robustness.

A small proportion of respondents suggested that government should clarify how the GSCC standard aligns with UK decarbonisation policies and market conditions and assess the achievability of thresholds to ensure supply can meet demand.

**Question 5.13 Do you believe that the emissions reporting and verification requirements to use the Global Steel Climate Council's (GSCC) product standard are robust and appropriate for use in green procurement policies, or not? Please explain your reasoning.**

There were 25 responses to the Likert scale question. A larger group felt that the GSCC product standard was not robust or appropriate for use in green procurement policies (12 respondents: 5 'Somewhat not robust or appropriate', and 7 'Not robust or appropriate at all'). Six respondents considered the standard to be robust and appropriate (4 'Somewhat robust and appropriate', and 2 'Very robust and appropriate'), while 7 respondents were 'Undecided'.

There were 12 responses to the open-text question. Respondents highlighted strengths such as transparent and comparable emissions data and a thorough verification process. One respondent also noted that the system boundary aligns with other recognised approaches, such as CLC's green steel scale. Those who felt the requirements were not robust most pointed to the absence of full life cycle emissions data, which they said limits like-for-like comparison and overall transparency. Additional reasons included concerns about reliance on

secondary rather than primary data, which some felt could reduce accuracy, and the view that the standard is relatively new and evolving, meaning further work may be needed to support alignment with existing national or sector-specific standards.

**Question 5.14 Is there anything else the government should consider regarding the green steel scale in the Construction Leadership Council's (CLC) Five Client Carbon Commitments, or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 20 responses to this open-text question. Respondents highlighted several additional advantages of the CLC's green steel scale, as well as a range of disadvantages. Advantages highlighted included that the scale is simple to apply and can help buyers make informed decisions and that it could send a clear market signal that encourages investment in lower carbon products. It was also reported that a fixed threshold could provide clarity.

Additional potential disadvantages raised included concerns that the scale is focused on EAF steel producers and could lead to increased imports of EAF steel. A small proportion of respondents raised methodological concerns, including the robustness and transparency of the underlying data and approaches to data verification. Other disadvantages included difficulties in making like-for-like comparisons and the risk that the scale may not support easy or practical procurement decisions.

A small proportion of respondents suggested that, if government were to adopt the model, it should ensure alignment with international systems. A small proportion recommended periodic reviews to reflect technological advancements, such as CCUS and hydrogen steelmaking, and to ensure the thresholds remain ambitious and achievable.

**Question 5.15 Is there anything else the government should consider regarding the U.S. Environmental Protection Agency's (EPA) approach to setting limits for low embodied carbon steel, or any points of the description and its potential advantages or disadvantages that you disagree with?**

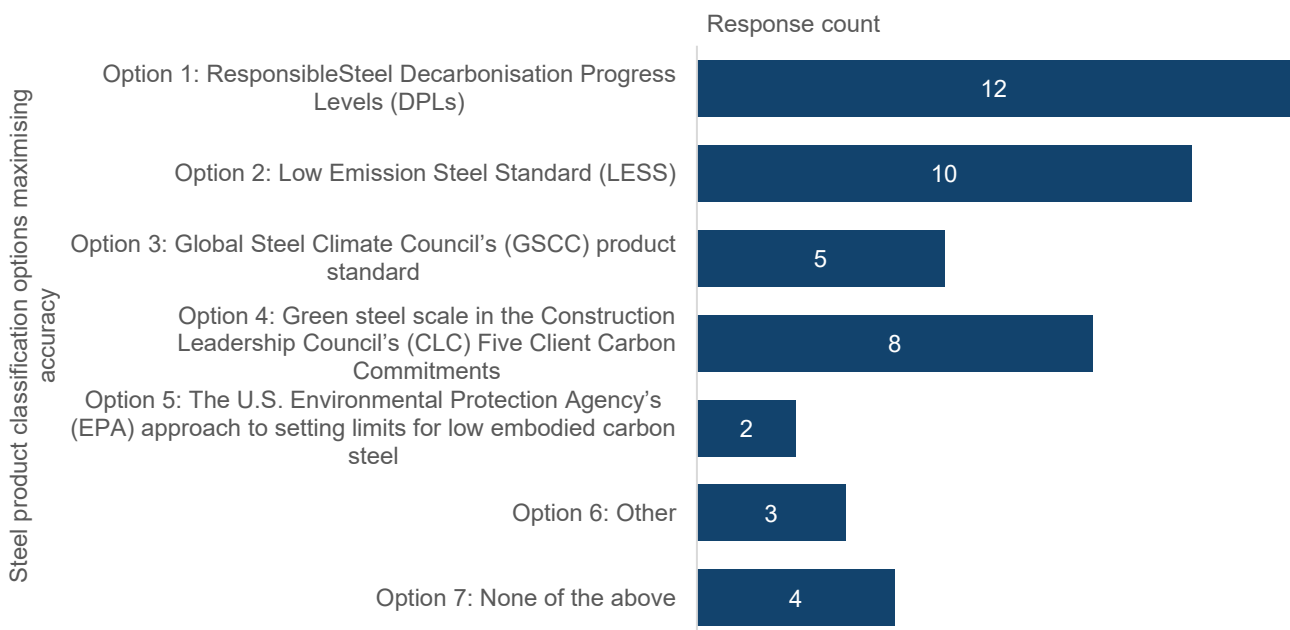
There were 10 responses to this open-text question. Respondents highlighted several additional advantages of the U.S. EPA's approach beyond those included in the consultation. A small proportion of respondents stated that the EPA's approach has strong regulatory backing in the U.S., which helps drive emissions reductions, and that it is practicable for buyers. A similar proportion disagreed with the suggestion that the EPA's approach is disadvantaged by not being linked to net zero goals, arguing that this could make it easier to implement.

Respondents also reported several additional disadvantages. A minority of respondents raised concerns that the EPA's approach is a dynamic, market-based model, noting that as thresholds change to reflect the market, products could shift classification, which may make long term commitments more challenging for buyers. Respondents raised the fact that the EPA's approach does not take account of the global availability of scrap steel as a further additional disadvantage. A small proportion noted that, if the EPA's approach were to be applied in the UK, it should reflect UK or EU market conditions rather than global averages.

**Question 5.16 Which of the following steel product classification option(s) is best suited to provide an accurate basis for classifying steel products as low carbon? Please explain your reasoning, especially if you are selecting multiple options or if you have a preference.**

There were 44 responses to the multiple-choice question. The ‘ResponsibleSteel Decarbonisation Process Levels (DPLs)’ (Option 1) were selected by the largest group of respondents (12 respondents) as the steel product classification option best suited to provide an accurate basis for classifying steel products as low carbon. This was closely followed by ‘Low Emission Steel Standard (LESS)’ (Option 2), selected by 10 respondents, and the ‘Construction Leadership Council’s green steel scale’ (Option 4), selected by 8 respondents. A smaller number supported the ‘Global Steel Climate Council’s (GSCC) product standard’ (Option 3) (5 respondents) or ‘the U.S. Environmental Protection Agency’s (EPA) approach’ (Option 5) (2 respondents). In addition, 3 respondents selected ‘Other’, while 4 respondents selected ‘None of the above’ (Option 7) (see Figure 23).

**Figure 23. Aggregated response count to Question 5.16, ‘Which of the following steel product classification option(s) is best suited to provide an accurate basis for classifying steel products as low carbon?’ (select all that apply).**



There were 30 responses to the open-text question. In explaining their reasoning, some of the respondents in favour of ResponsibleSteel DPLs (Option 1) highlighted that its progressive thresholds could drive continuous improvement, while its use of a sliding scale was seen as enabling fairer decarbonisation across different production routes. A minority of respondents noted the model’s robust emissions reporting and verification requirements, as well as its international alignment. Similar reasons were given in support of LESS (Option 2), particularly the perceived fairness of its sliding scale approach. In justifying their support of the CLC’s green steel scale (Option 4), respondents cited its simplicity and practicality for use in the UK, while

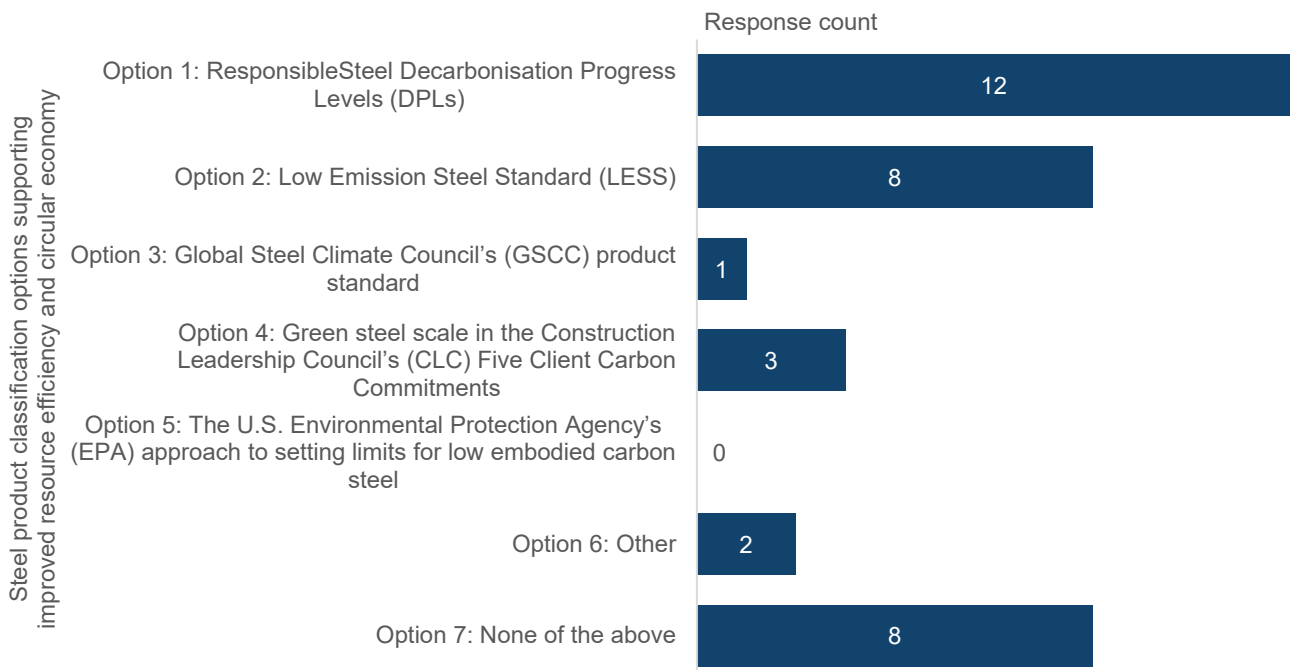
those favouring the EPA’s approach (Option 5) noted its focus on decarbonising the full supply chain.

A minority of respondents identified drawbacks across the options, including concerns that some thresholds reflect best practice rather than net zero trajectories, and that certain entry requirements may be unachievable for domestic producers. Of the respondents who selected none of the options (Option 7) some pointed to a lack of consensus, limited suitability for UK conditions and suggested alternatives such as the CARES SCS scheme and cradle to gate emissions (e.g. EPDs).

**Question 5.17 Which steel product classification option is best suited to encourage and support improved resource efficiency and a circular economy? Please explain your reasoning.**

There were 34 responses to the multiple-choice question. ‘ResponsibleSteel DPLs’ (Option 1) was selected by the largest group of respondents (12 respondents) as the option best suited to support improved resource efficiency and a circular economy, followed by ‘LESS’ (Option 2) (8 respondents). Smaller numbers selected the ‘Green steel scale in the CLC’s Five Client Carbon Commitments (5CCCs)’ (3 respondents), ‘Other’ (2 respondents), and the ‘GSCC’s product standard’ (one respondent). No respondents selected the U.S. EPA’s approach and 8 respondents selected ‘None of the above’ (see Figure 24).

**Figure 24. Aggregated response count to Question 5.17, ‘Which steel product classification option is best suited to encourage and support improved resource efficiency and a circular economy?’ (select all that apply).**



There were 28 responses to the open-text question. In justifying their selection, some supporters of ResponsibleSteel DPLs (Option 1) and LESS (Option 2) said the sliding scale

supports more efficient material use and encourages circularity across production routes. Other respondents disagreed, arguing that the sliding scale does not sufficiently incentivise greater scrap use. Those favouring the GSCC's product standard (Option 3) and CLC's green steel scale (Option 4) felt that non-sliding scale models more directly encourage higher recycled content and avoid disadvantaging producers using scrap. However, a minority of respondents criticised GSCC's and the EPA's approach for assuming scrap-based steel automatically meets thresholds.

A minority of respondents questioned whether product classifications are the right tool to drive resource efficiency and circularity, suggesting other policy levers may be more appropriate. A minority of respondents proposed alternatives such as the CARES SCS scheme for its verification of recycled content.

**Question 5.18 Are there any other considerations that the government should consider regarding the reporting and verification of product level embodied emissions data with respect to the use of steel product classifications? Please explain your reasoning.**

There were 22 responses to this open-text question. Respondents offered a range of recommendations for what government should consider regarding the reporting and verification of product-level emissions data for steel product classifications. A minority emphasised the need for transparent and standardised reporting to enable meaningful comparisons across products and suppliers and build confidence in the classification system. A small proportion called for alignment with recognised calculation standards and common PCRs and stressed the importance of robust, independent verification to ensure data credibility.

A minority of respondents highlighted the importance of embedding circular economy principles within the product classification. They recommended incorporating metrics on recycled content, material reuse and clear definitions of recycling, supported by LCA approaches such as including Module D in EPDs. A small proportion suggested DPPs could be used to track recycled content, production methods and carbon intensity.

Others emphasised the need for policy alignment to avoid unintended consequences, noting that product classifications must be achievable for UK producers. A small proportion of respondents highlighted the need for sufficient transition time, including the view that expectations should remain lower before 2030, while others argued for including factory gate to site (A4) emissions given the forthcoming UK CBAM. A small proportion addressed procurement, including balancing decarbonisation drivers with maintaining steel supply and concerns about conflicts with Procurement Policy Note (PPN) 02/22 and limited industry appetite for shifting positions on EAF production.

**Concrete product classifications (Questions 5.19 to 5.26)**

**Question 5.19 Are there any other concrete product classification options that the government has not identified and should consider as potentially suitable, in particular for use in green procurement policies? If so, please provide details.**

There were 21 responses to this open-text question. The majority of respondents did not propose additional concrete product classification options, although a small proportion highlighted the Concrete Sustainability Council's certification as a further option. The Concrete Centre's sustainable concrete guidelines were noted for providing technical frameworks and best practice standards that could complement product classifications. A small proportion recommended that the government continue to monitor international developments, including the EPA's work on defining low carbon concrete. Others suggested leveraging PCRs for concrete and aligning with the Organisation for Economic Co-operation and Development (OECD) standards and EU CPR requirements to support consistent embodied emissions reporting.

A minority of respondents proposed features that could strengthen product classifications, including sliding scales for supplementary cementitious materials such as Ground Granulated Blast Furnace Slag (GGBS) to incentivise low carbon mixes, classifying products by recycled content to promote circularity, and recognising CCUS. Respondents stressed that any classification should avoid oversimplification, such as focusing solely on compressive strength, and emphasised the importance of whole building carbon assessments over product-level comparisons. Buyer-facing tools were also recommended to support adoption, though a small proportion cautioned that existing models already add complexity and administrative burden.

**Question 5.20 Do you agree or disagree that the above is an accurate understanding of the key differences between concrete product classifications? Please explain your reasoning, and if any other differences should be considered.**

There were 25 responses to the Likert scale question. The majority of respondents 'Agreed' (19 respondents) or 'Strongly agreed' (2 respondents) that the consultation accurately described the key differences between the concrete product classification options. One respondent 'Strongly disagreed' and 3 respondents were 'Undecided'.

There were 13 responses to the open-text question. In their responses, respondents who agreed said the consultation clearly outlined the main distinctions between models, including whether classifications use dynamic or fixed approaches, the strength classes they cover, and whether waste CO<sub>2</sub> emissions are reported on a net or gross basis. A small proportion of respondents highlighted further nuances. These included that the Lower Carbon Concrete Group's (LCCG) thresholds reflect local market conditions, whereas the Mineral Products Association (MPA)-GCCA thresholds are based on an international model.

**Question 5.21 Is there anything else the government should consider regarding the Lower Carbon Concrete Group's (LCCG) Market Benchmark or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 22 responses to this open-text question, and respondents generally agreed with the potential advantages and disadvantages set out in the consultation. A minority of respondents said the dynamic nature of the Market Benchmark is an advantage, noting that it provides a clear snapshot of market performance, supports realistic target setting and enables users to track progress over time. A small proportion of respondents felt the model effectively rewards

continuous improvement, encouraging better carbon accounting practices and innovation, and promotes greater transparency.

A minority of respondents highlighted additional disadvantages; most commonly concerns about the model's dynamic banding. A minority of respondents said that annual updates and shifting thresholds increase complexity and administrative burden, and others suggested that reliance on frequent data submissions could limit long term sustainability. A small proportion questioned whether the model adequately represents the full UK concrete market, noting that partial data coverage could create a misleading picture, particularly where 'market-beating' ratings rely on incomplete submissions. A minority of respondents also said the Market Benchmark does not operate effectively as a product classification tool and suggested it may be more suitable for tracking market trends and supporting target setting alongside one of the fixed options.

**Question 5.22 Is there anything else the government should consider regarding Arup-UKRI's Universal Classification for embodied carbon of concrete or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 22 responses to this open-text question, and respondents generally agreed with the potential advantages and disadvantages set out in the consultation. A small proportion of respondents said the Universal Classification's fixed bands are an advantage, noting that they provide consistency over time, build familiarity and enable progress to be measured against a clear baseline. A small proportion of respondents highlighted strengths including established use within industry, a wide product scope, the ability to accommodate future net negative concrete products and the simplicity of the A-G scale. Others said the model promotes transparency, improves comparability and aligns with wider UK decarbonisation ambitions.

Respondents identified additional potential disadvantages. A small proportion suggested that fixed bands may provide limited incentives for incremental improvement, with some bands perceived as commercially irrelevant. A small proportion of respondents also noted that the use of net emissions is not aligned with the UK's current preference for gross emissions reporting, and that applying the model could place disproportionate data burdens on suppliers, particularly SMEs.

Respondents also proposed improvements, including periodic review of thresholds, adjustments to avoid overspecification of GGBS, and expansion to reflect regional variations in materials and production processes. A small proportion said the model should be aligned with existing standards and frameworks to avoid duplication and emphasised the importance of ensuring it continues to support innovation.

**Question 5.23 Is there anything else the government should consider regarding the GCCA's Global Ratings adapted for the UK by the MPA or any points of the description and its potential advantages or disadvantages that you disagree with?**

There were 21 responses to this open-text question, and respondents generally agreed with the potential advantages set out in the consultation, though views were mixed on the absence of a band for net negative products. A minority of respondents highlighted the value of alignment with the global GCCA model, noting that this would support international consistency and

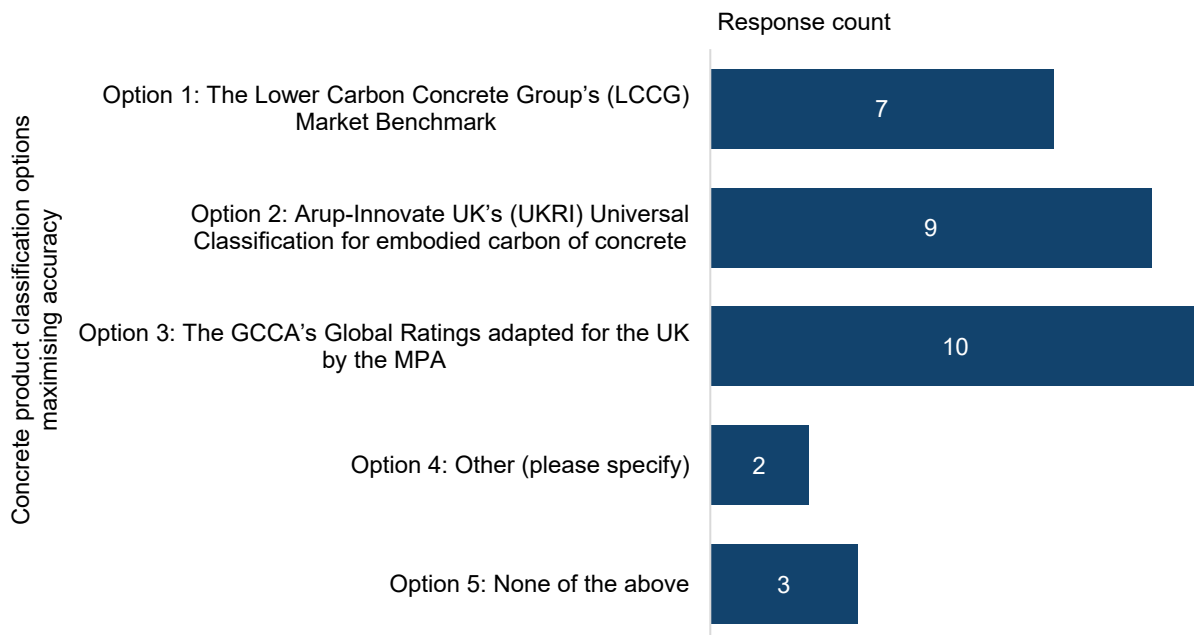
comparability. A minority of respondents also said that development in collaboration with GCCA and MPA members could help secure industry buy in. A small proportion of respondents raised additional advantages, including the use of simple, tiered, fixed bands with thresholds based on real industry data and aligned with net zero trajectories.

A minority of respondents reported seeing no disadvantages and suggested that a future AAA rating could accommodate net negative concrete to address the current gap. Others disagreed, saying the bands could be seen as serving manufacturers rather than supporting the UK's decarbonisation pathway. A small proportion of respondents said the banding structure is more complex than alternative models and that introducing AA or AAA bands could risk devaluing the scheme. Other disadvantages raised included limited incentives for incremental improvement due to fixed bands and the need to avoid confusion between cement and concrete product classifications within the GCCA framework. A minority of respondents suggested further refinements, such as regularly updating thresholds, avoiding overspecification of GGBS and using the model alongside the LCCG's Market Benchmark to support target setting.

**Question 5.24 Which of the following concrete product classification option(s) is best suited to provide an accurate basis for classifying concrete products as low carbon? Please explain your reasoning, especially if you are selecting multiple options or if you have a preference.**

There were 31 responses to the multiple-choice question. The 'The Global Cement and Concrete Association's (GCCA) Global Ratings adapted for the UK by the Mineral Products Association (MPA)' (Option 3) received the most support (10 respondents) as the product classification best suited to provide an accurate basis for classifying concrete products as low carbon. This was closely followed by 'Arup-UKRI's Universal Classification for embodied carbon of concrete' (Option 2), selected by 9 respondents, and 'The Lower Carbon Concrete Group's (LCCG) Market Benchmark' (Option 1) (7 respondents). In addition, 2 respondents chose 'Other' (Option 4), while 3 respondents selected 'None of the above' (Option 5) (see Figure 25).

**Figure 25. Aggregated response count to Question 5.24, ‘Which of the following concrete product classification option(s) is best suited to provide an accurate basis for classifying concrete products as low carbon?’ (select all that apply).**



There were 25 responses to the open-text question. In explaining their reasoning, respondents in favour of the LCCG’s Market Benchmark (Option 1) commonly emphasised its practical, industry supported design, noting its use of recent UK market data and dynamic thresholds that allow organisations to set targets aligned with current performance and material availability. A minority of respondents felt the model would work best alongside, rather than instead of, a fixed classification. A small proportion highlighted drawbacks, including reliance on regular data updates, year to year variability in product classification, and the risk that incomplete data submissions could distort the ‘market-beating’ threshold.

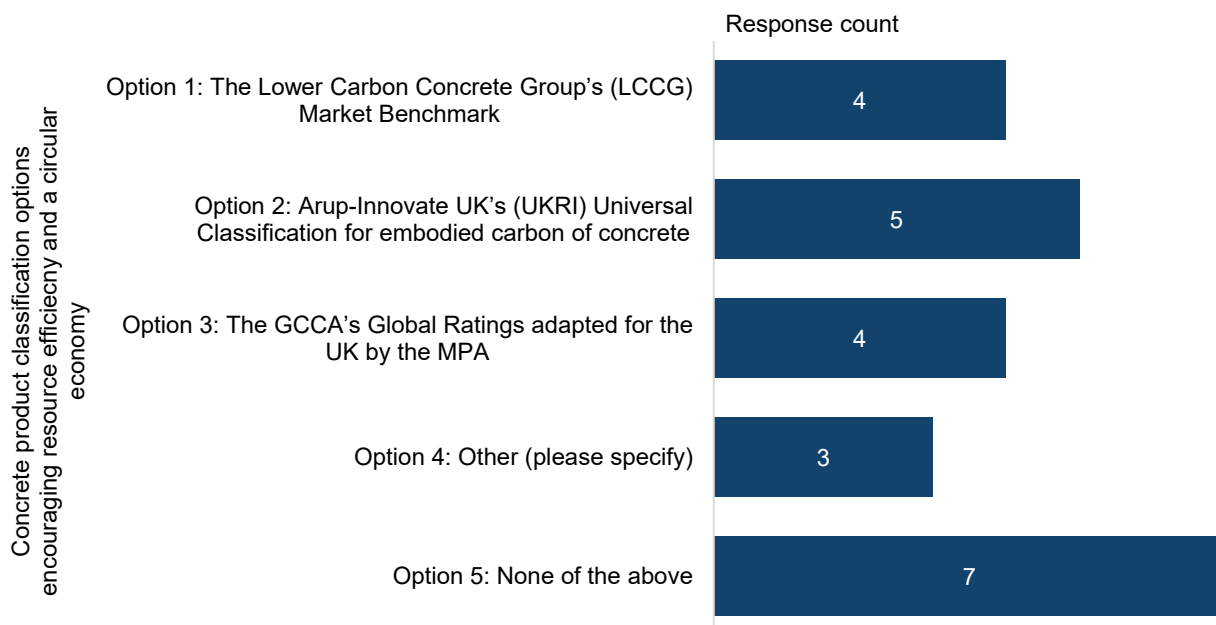
Respondents supporting Arup-UKRI’s Universal Classification (Option 2) viewed it as a credible and widely recognised model that supports more standardised embodied carbon reporting. Respondents valued its fixed bands, broad product scope, suitability for strategic planning, and alignment with UK net zero objectives. The ability to classify net negative products was also seen as an advantage, although some noted that its lack of linkage to a global model may be a limitation.

In explaining their reasoning for supporting the GCCA-MPA model (Option 3), respondents highlighted its consistency, industry endorsement and alignment with international frameworks, helping to support comparability across markets. Respondents noted that its fixed thresholds provide stability and are based on established data and achievable decarbonisation pathways, though some felt it is less tailored to UK market conditions and cannot classify net negative products.

**Question 5.25 Which concrete product classification option is best suited to encourage and support improved resource efficiency and a circular economy? Please explain your reasoning.**

There were 23 responses to the multiple-choice question. ‘None of the above’ (Option 5) was selected by the largest group of respondents (7 respondents) as best suited to encourage and support improved resource efficiency and a circular economy. Of the options presented, 5 respondents selected ‘Arup-UKRI’s Universal Classification’ (Option 2). This was closely followed by ‘The LCCG’s Market Benchmark’ (Option 1) and ‘The GCCA-MPA model’ (Option 3), selected by 4 respondents each. Three respondents chose ‘Other’ (Option 4) (see Figure 26).

**Figure 26. Aggregated response count to Question 5.25, “Which concrete product classification option is best suited to encourage and support improved resource efficiency and a circular economy?” (select all that apply).**



There were 18 responses to the open-text question. In justifying their choices, just over half of responses stated that none of the above (Option 5) are best suited to improving resource efficiency as the options focus on carbon intensity rather than how efficiently concrete is specified, used and reused. A small proportion felt that Arup-UKRI’s Universal Classification (Option 2) may support resource efficiency, as its use of net emissions could incentivise the use of domestic waste as a fuel source.

Several responses also proposed alternative approaches, including material passports, recycled content classifications or hybrid models capturing reuse potential alongside carbon. Additional suggestions included reporting end of life metrics and explicitly recognising reuse and design for circularity, though some cautioned that this could increase complexity. A small proportion also raised concerns that classifications based solely on strength may undermine resource efficiency by promoting less resilient products.

**Question 5.26 Do you think that a ‘combined approach’, such as the Universal Classification and Market Benchmark, could be utilised for procurement guidance? If so, how useful do you think it would be in practice? Please explain your reasoning.**

There were 23 responses to this open-text question. The majority of respondents agreed that a combined approach, such as using the Universal Classification alongside the LCCG’s Market Benchmark, could be utilised for procurement guidance. Respondents noted that this could support organisations in selecting lower carbon options by communicating the embodied carbon of available concrete products. A minority commented that the Market Benchmark and a fixed product classification offer complementary benefits, enabling consistent year on year assessment while supporting realistic decarbonisation target setting. A small proportion also noted that the Market Benchmark could help define minimum carbon performance requirements, and that a combined approach could promote innovation or support future ecolabelling. Respondents emphasised that clear guidance would be essential, as well as alignment between the two models and care to avoid stifling innovation.

A small proportion of respondents raised practical concerns about recommending both fixed and dynamic classifications. A small proportion felt that a combined approach could cause confusion, suggesting that a single model would be simpler, easier to implement and more effective in driving uptake. Others noted that annually updated benchmarks may create contractual challenges, and that any combined approach may need tailoring to different geographic regions and concrete applications.

**Cement product classifications and supply chain materials (Questions 5.27 to 5.29)**

**Question 5.27 Are there any other examples of cement product classifications that the government should consider? If so, please provide details.**

There were 12 responses to this open-text question. The majority of respondents did not suggest further cement product classifications. A small proportion highlighted the European Cement Association and the Portland Cement Association’s environmental reporting frameworks as mechanisms that could inform a cement product classification. It was also suggested that government could consider a regionally tailored model to reflect local market conditions and material characteristics.

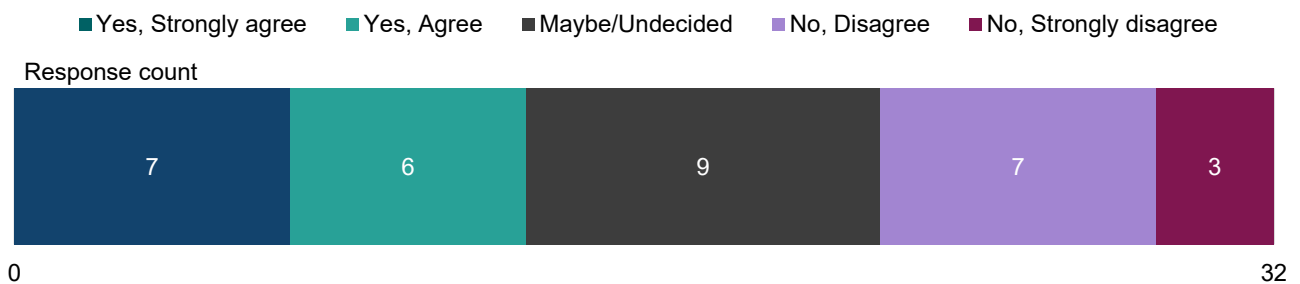
The GCCA’s Global Ratings for Cement were referenced, though a small proportion of respondents noted these may be more applicable to markets outside the UK. A similar proportion of respondents also emphasised the importance of aligning any future classification with OECD standards to strengthen the robustness of LCAs. A small proportion cautioned against using a cement product classification in isolation, stating that reporting should ultimately feed into a WLC assessment.

A small proportion questioned the need for a cement product classification at all, noting that concrete is the end product purchased and that high carbon cement can still be used within an overall low carbon concrete mix.

**Question 5.28 Do you agree or disagree with the government’s proposed approach to not initially pursue a cement product classification? Please explain your reasoning, including examples of when it could be helpful to use a cement classification in addition to concrete.**

There were 32 responses to the Likert scale question. Just under half of respondents ‘Agreed’ (6 respondents) or ‘Strongly agreed’ (7 respondents) with the government’s proposal not to initially pursue a cement product classification, while a minority ‘Disagreed’ (7 respondents) or ‘Strongly disagreed’ (3 respondents). Nine respondents were ‘Undecided’, indicating no clear consensus but a slight majority in support (see Figure 27).

**Figure 27. Aggregated response count to Question 5.28, ‘Do you agree or disagree with the government’s proposed approach to not initially pursue a cement product classification?’ (select one).**



There were 29 responses to the open-text question. A minority of respondents emphasised that concrete is the relevant end product used in construction and that prioritising a concrete product classification best captures the carbon footprint of the full mix. A small proportion of respondents noted that this approach could encourage more efficient cement use and avoid disadvantaging emerging low carbon concrete technologies or alternative cementitious materials. A small proportion of respondents highlighted that a cement product classification could duplicate existing regulatory requirements, including those linked to the EU CPR.

Arguments in favour of a cement product classification in addition to a concrete product classification included that it could improve transparency, support the specification of lower carbon cement and ensure a level playing field with other construction materials. A small proportion of respondents highlighted cement’s particularly high emissions and pointed to the value of aligning with international initiatives and avoiding overreliance on less sustainable alternatives such as GGBS. A similar proportion suggested that a cement product classification could have a future role to help strengthen WLC assessments or track decarbonisation progress.

**Question 5.29 In addition to product classifications, are there any policy approaches should government take to support the scale up of supplementary cementitious materials (SCMs)? What changes may be required to ensure that some potentially promising SCMs are not disadvantaged?**

There were 27 responses to this open-text question. The majority of respondents emphasised the need for increased funding and investment to accelerate research, testing and commercial

scale demonstration of emerging SCMs, including calcined clays and other non-resource constrained materials.

Respondents highlighted a range of policy measures to support scale up. A small proportion suggested clearer guidance on accounting for emissions from waste and byproducts, requiring producers to report clinker to cement ratios in EPDs, and discouraging reliance on resource-constrained materials. A small proportion of respondents also suggested introducing initiatives to signal demand for low carbon concrete and embedding SCM use within green procurement policies.

Respondents emphasised the need to ensure emerging SCMs are not disadvantaged by existing policy frameworks. Suggestions included broader supply chain and market support, aligning policies with current embodied carbon reporting requirements and building-level assessment methodologies, and encouraging the use of recycled aggregates and additives, for example through targets. A minority of respondents noted that updating British Standards to recognise a wider range of SCMs would support scale up and prevent innovative materials being excluded by prescriptive requirements.

A small proportion of respondents observed that uptake is closely linked to concrete performance and testing requirements, which may sit outside direct policy influence.

## Policy decisions and next steps

### Cross-cutting considerations

The government welcomes respondents' views across this chapter on product classifications. A large number of respondents reported already using product classifications, alongside interest from those who currently do not. Respondents also provided a range of feedback on the benefits, barriers and challenges with their use. In particular, respondents highlighted the role of product classifications in supporting internal procurement policies, as well as challenges, such as potential increases in administrative burden.

The government intends to proceed with using existing, sector-specific product classifications for green procurement policies rather than creating its own bespoke model(s). This includes not developing any single, cross-sector model. This reflects the rationale set out in the consultation and the overall support from respondents for this approach. However, if the government assesses that existing model(s) are not appropriate for green procurement policies, it will seek to work with industry to explore adapting these model(s) to improve suitability and support alignment with wider government priorities. The government also notes concerns that sector-specific product classifications could lead to cross-sector comparability and interoperability issues and will consider whether this needs to be addressed if it becomes a material issue, particularly in the context of any future expansion to other sectors.

Further assessment is required to determine whether government should take a prescriptive or permissive approach to the use of product classifications, as there was no clear consensus from respondents. This decision will also depend on the government's assessment of existing

product classification options, including whether one or more for each sector are suitable for use in green procurement policies.

## Steel product classifications

The government acknowledges the broad range of views from respondents on which product classification options are best suited to classify low emission steel. Given the minimal support on the suitability of the U.S. Environmental Protection Agency's (EPA) approach to setting limits for low embodied carbon steel, the government will no longer consider this model as a potential option. A small number of respondents also asked the government to consider alternative approaches. In response, the government confirms it will explore whether the CARES Sustainable Construction Steel (SCS) certification scheme could be a suitable option due to its UK origin and global presence. As this suggestion was raised by a small number of respondents, its suitability as a potential option will be assessed to determine whether to consider it alongside the other product classifications. The government will also consider any steel product classifications established under the EU's Ecodesign for Sustainable Products Regulation (ESPR), to help support alignment between the UK and EU approaches, which is expected to launch in 2026.

The government notes the lack of clear consensus on whether to use a steel product classification that applies a scrap sliding scale. Determining whether to use a sliding scale approach is a priority for government and will be crucial to progressing policy on which classification(s) to endorse. The government will therefore assess the suitability of a sliding scale approach as a first step, which will likely narrow the range of steel product classifications considered further for green procurement policies. This assessment will be informed through continued engagement with stakeholders.

The government welcomes the broad support from respondents that the consultation accurately set out the key differences between steel product classification options. Respondents provided a range of views on the advantages, disadvantages and further considerations of each option. In particular, the government notes respondents' concerns that some product classifications may be challenging to achieve, could adversely affect domestic supply chains, or could increase administrative and cost burdens due to complex verification and certification processes. The government also acknowledges benefits of some product classifications such as the system boundary improving product comparability and usability of simpler models. These factors will be explored further to inform government's decision on which steel product classification(s) to endorse.

The government has also considered the evidence on emissions reporting and verification approaches across existing classification options. In doing so, it has noted the general support for the robustness and suitability of emissions reporting and verification under ResponsibleSteel Decarbonisation Progress Levels (DPLs) and the Low Emission Steel Standard (LESS), alongside limited support for the emissions reporting and verification approach under the Global Steel Climate Council's (GSCC) product standard for green procurement policies. The government will also consider the role of supplementary reporting requirements for ResponsibleSteel DPLs and LESS, such as the disclosure of full life cycle

emissions, as well as the extent to which different approaches support improved resource efficiency and a circular economy. These considerations will inform the government's decision on which steel product classification approach or approaches to endorse.

## Concrete product classifications

The government welcomes the broad consensus among respondents that the consultation provided an accurate overview of the key distinctions between the concrete product classification options. The government also appreciates the additional technical insights offered by respondents, including further considerations, potential advantages and disadvantages for each option.

The government recognises respondents' support of at least one of the concrete product classification options identified. On this basis, the government will not explore any additional options for inclusion in future best practice procurement guidance. In considering the evidence on resource efficiency and circularity, the government acknowledges respondents' general view that the options focus on carbon intensity rather than how concrete is used and reused and will take this into account as it considers the role and scope of product classifications within wider policy objectives.

The government will continue to assess the suitability of the three concrete product classification options set out in the consultation, noting the strong support for prioritising a fixed model. The government also acknowledges the broad support for a combined approach, such as the Universal Classification and Market Benchmark, and will continue to evaluate the potential strengths and limitations of this approach, particularly in comparison with a more prescriptive recommendation, before determining which option(s) are most appropriate for green procurement policies.

## Cement product classifications

The government has considered respondents' views on the potential use of a cement product classification and its suitability for inclusion in future best practice procurement guidance. At this stage, the government has decided not to pursue a cement product classification. This decision reflects the fact that cement's embodied emissions are already captured within concrete assessments and that there is currently no UK-specific cement model. However, the government will keep this position under review and may reconsider it in future should a viable cement product classification be developed or a clear policy need emerge.

The government has also considered the range of policy approaches suggested by respondents to help scale up supplementary cementitious materials (SCMs). Respondents proposed several measures, including increased funding and investment to accelerate research and deployment, as well as updates to relevant standards and specifications to ensure emerging SCMs can be adopted more easily. The government will consider these proposals as part of its wider policy development on cement decarbonisation.

More broadly, the government is currently supporting cement decarbonisation through a number of policies, including through recently signed contracts with Padeswood, the UK's first

carbon capture-enabled cement plant and through funding provided under the Advanced Market Commitments (AMCs) programme. The inclusion of the AMC programme in last year's Autumn Budget<sup>23</sup> demonstrates the government's commitment to supporting the next generation of low carbon cement technologies. This signals the ongoing efforts to advance the decarbonisation within the cement sector, underlining the importance of enabling innovative solutions.

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<sup>23</sup> UK Government, 2025, [Budget 2025 \(HTML\) - GOV.UK](#)

# Chapter 6: Green procurement for low carbon products

## Chapter overview

This chapter set out proposals to strengthen product-level green procurement and options to develop best practice guidance for public and private organisations. It placed these proposals in the wider context of UK and international green procurement, where product-level approaches remained limited and inconsistent. The chapter consulted on opportunities to expand product-level green procurement, the benefits and challenges of implementation and the role of existing government and industry initiatives. It also sought views on how future guidance could align with wider government policy and support more consistent, transparent purchasing decisions.

### Existing procurement practices and current barriers (Questions 6.1 to 6.4)

**Question 6.1 If you are a procurer, does your organisation already practice any product-level green procurement policies? If so, please provide details.**

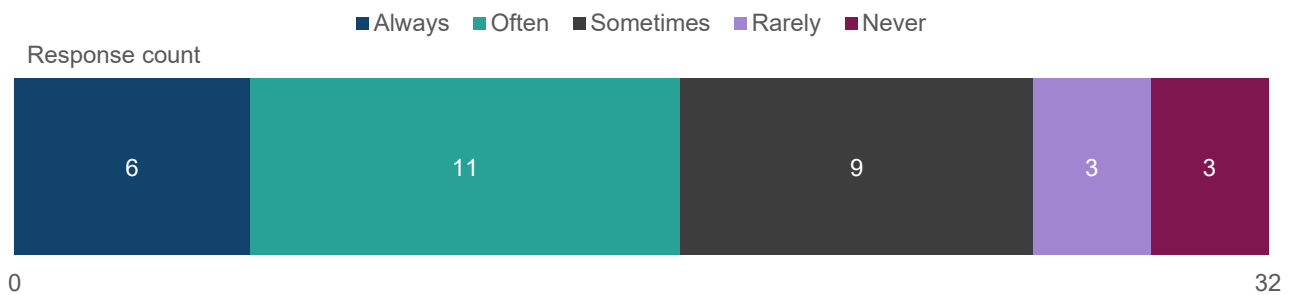
There were 31 responses to the single-choice question. The largest group of respondents (20 respondents) said their organisation already practices product-level green procurement policies. Seven respondents said their organisation does not practice these policies and 4 respondents were 'Unsure'.

There were 29 responses to the open-text question. Around a third of respondents reported having formal mechanisms in place. These included dedicated frameworks for procuring low carbon products and materials, integrating sustainability and responsible sourcing criteria into supplier selection and using EPDs to verify embodied carbon and inform material choices. One respondent noted using carbon intensity floors for steel and concrete products based on recognised industry classifications. A small proportion of respondents said customer and investor expectations were helping to drive the adoption of product-level green procurement policies within their organisations. One respondent said they were not aware of specific product-level green procurement policies but noted the presence of broader sustainability frameworks, such as organisational sustainability policies and supplier sustainability charters, which incorporate social, environmental and economic considerations to support sustainable practice.

**Question 6.2 If you are a procurer, do you already require embodied emissions data to be provided by potential suppliers? If so, please provide details.**

There were 32 responses to the Likert scale question. Just over half of respondent said they require embodied emissions data either 'Always' (6 respondents) or 'Often' (11 respondents). Nine respondents said 'Sometimes', 3 respondents said 'Rarely' and 3 respondents said 'Never' (see Figure 28).

**Figure 28. Aggregated response count to Question 6.2, ‘If you are a procurer, do you already require embodied emissions data to be provided by potential suppliers?’ (select one).**

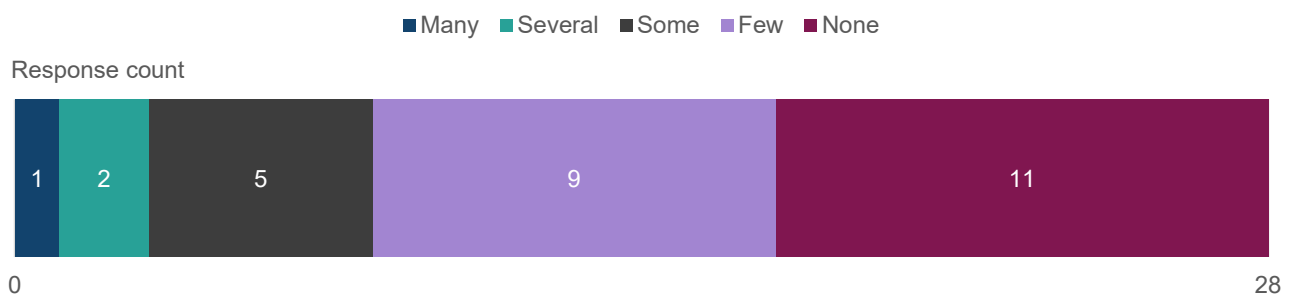


There were 28 responses to the open-text question. A small proportion of respondents reported routinely requesting emissions data alongside broader evidence of carbon reduction initiatives. A minority described requesting embodied emissions data, including EPDs, for specific product categories or higher impact projects. A small proportion emphasised ongoing efforts to build internal capability or support suppliers in generating more robust data. A minority of respondents reported that, while they ask their suppliers for emissions data or EPDs, they do not require suppliers to provide it. In some cases, respondents rely on embodied emissions data to produce and maintain their own EPDs. A minority reported rarely or never requesting such data, citing low confidence in the accuracy of supplier information, limited sector maturity, or past difficulties in obtaining usable data. A small proportion noted that they are exploring options to strengthen future requirements as supplier capability improves.

**Question 6.3 If you are a procurer, do you already use any examples of product classifications in your policies? If so, please provide details.**

There were 28 responses to the Likert scale question. A minority of respondents (11 respondents) said they do not use any product classifications. Nine reported using ‘Few’, 5 respondents said they use ‘Some’, 2 respondents said they use ‘Several’ and one respondent indicated they use ‘Many’ (see Figure 29).

**Figure 29. Aggregated response count to Question 6.3, ‘If you are a procurer, do you already use any examples of product classifications in your policies?’ (select one).**



There were 17 responses to the open-text question. Respondents referenced a range of classifications. A minority reported using concrete product classifications, including Arup-UKRI’s Universal Classification. A small proportion of respondents reported using the GSCC product standard, citing its endorsement by the CLC, while others reported using the ResponsibleSteel

DPLs. A small proportion of respondents noted that they use alternative product information or standards such as EPDs, while others said they were considering adopting product classifications in the future. A small proportion of respondents said they use product classifications but not for sustainability assessment. A small proportion of respondents stated they do not use product classifications in their procurement policies, leaving decisions on materials to suppliers.

**Question 6.4 Do you agree or disagree with our overview of the barriers and possible limitations of the current green procurement landscape? Please explain your reasoning, including any others that the government should consider.**

There were 54 responses to the Likert scale question. Most respondents 'Agreed' (34 respondents) or 'Strongly agreed' (8 respondents) with the government's overview of the barriers and possible limitations of the current green procurement landscape. Seven respondents were 'Undecided' and 3 respondents 'Disagreed'. No respondents 'Strongly disagreed' with the proposal.

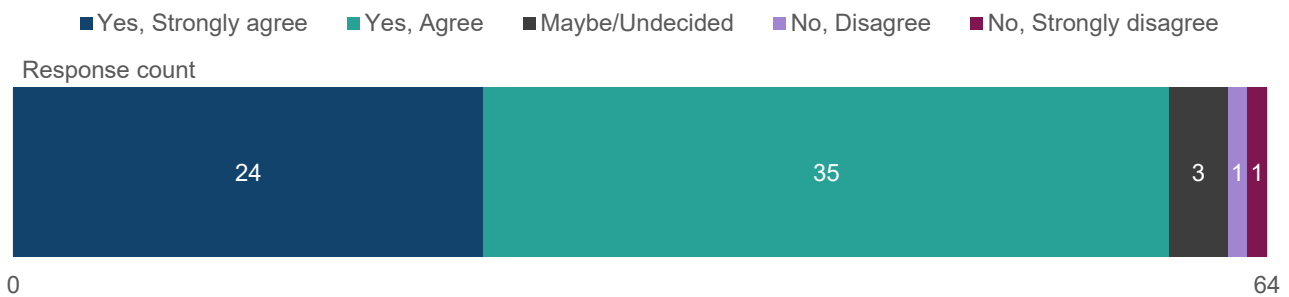
There were 48 responses to the open-text question. In their open-text responses, respondents highlighted several additional barriers and limitations. Just under half pointed to inconsistent data and standards as a key barrier, noting that this makes it difficult for buyers to compare products. A minority said that higher perceived costs and uncertainty on how to balance reducing carbon emissions with other environmental considerations were further limitations. A small proportion added that a lack of incentives and limited technical knowledge are additional constraints. A small proportion of respondents called for government intervention, indicating that limited market availability remains a significant barrier to green procurement. Respondents noted that in many sectors low carbon alternatives are still scarce, often more expensive, and constrained by low demand and market readiness, with some suggesting this challenge may be understated in the current overview.

**Developing green procurement guidance (Questions 6.5 to 6.7)**

**Question 6.5 Do you agree or disagree with our proposal to develop green procurement guidance for buying low carbon products? Please explain your reasoning, and if you disagree, please provide any suggestions for alternatives.**

There were 64 responses to the Likert scale question. Most respondents 'Agreed' (35 respondents) or 'Strongly agreed' (24 respondents) with the proposal. Three respondents were 'Undecided', one respondent 'Disagreed' and one respondent 'Strongly disagreed' (see Figure 30).

**Figure 30. Aggregated response count to Question 6.5, ‘Do you agree or disagree with our proposal to develop green procurement guidance for buying low carbon products?’ (select one).**



There were 65 responses to the open-text question. Respondents stated that green procurement guidance would help procurers make more informed decisions by providing consistent criteria, improving the use of data in procurement processes and supporting alignment across the supply chain. Respondents noted that clearer guidance could strengthen demand signals for lower carbon products, driving market transformation and encouraging suppliers to invest in decarbonisation. Some also highlighted the potential social value benefits, such as employment and skills. A small proportion of respondents supported the proposal but raised considerations regarding its implementation. These respondents emphasised the need for flexibility to allow suppliers time to adapt and stressed that guidance should complement wider procurement policy and align with broader public sector aims.

A small proportion of respondents disagreed with the proposal. These respondents did not offer alternative approaches but expressed concerns that green procurement guidance could unintentionally increase imports of lower carbon steel from overseas.

**Question 6.6 Do you agree or disagree with the proposal to introduce best practice, voluntary green procurement standards into the Government Buying Standards? Please explain your reasoning, including whether there are any other procurement guidance documents that should be considered.**

There were 59 responses to the Likert scale question. Most respondents ‘Agreed’ (29 respondents) or ‘Strongly agreed’ (20 respondents) with the proposal to introduce best practice, voluntary green procurement standards into the Government Buying Standards (GBS). Five respondents were ‘Undecided’, 4 respondents ‘Disagreed’ and one respondent ‘Strongly disagreed’.

There were 54 responses to the open-text question. Most respondents stated that voluntary standards would strengthen market signals and increase demand for lower carbon products. They noted that clear benchmarks would support public sector buyers, raise industry ambition and encourage suppliers to invest in decarbonisation. Respondents also viewed voluntary standards as a useful transitional step that could pave the way for future mandatory requirements. A small proportion of respondents warned that voluntary standards may have limited impact if uptake is inconsistent, noting the risk of limited behavioural change or uneven buy in. Others highlighted potential market distortion risks and stressed the importance of

aligning standards with existing frameworks to ensure consistency across the public sector. A small proportion of respondents disagreed with the proposal, citing potential unintended consequences for the UK steel industry. A minority of respondents suggested additional documents for consideration, including the Construction Playbook, PPNs, the Sourcing Playbook, Public Sector Decarbonisation Guidance and the Procurement Act 2023.

**Question 6.7 Would you agree or disagree with the prospect of the best practice guidance being made mandatory for government departments through the Government Buying Standards in future? Please explain your reasoning.**

There were 59 responses to the Likert scale question. Most respondents 'Agreed' (32 respondents) or 'Strongly agreed' (15 respondents) with the prospect of best practice guidance being made mandatory for government departments through the GBS. Seven respondents were 'Undecided', one respondent 'Disagreed' and one respondent 'Strongly disagreed'.

There were 48 responses to the open-text question. Just under half of respondents suggested that making the guidance mandatory through the GBS would send a strong market signal that could drive innovation and accelerate decarbonisation by encouraging producers to improve their environmental performance. A minority added that it could stimulate demand for low carbon products, while a small proportion noted that it could strengthen accountability by making it easier to track progress and providing greater certainty to businesses. However, a minority of respondents cautioned that transitioning to mandatory guidance would require gradual implementation to allow businesses, particularly SMEs, sufficient time to adapt. A small proportion raised concerns about potential unintended consequences. These included distorting the market and the risk of disadvantaging the domestic steel industry.

**Guidance phases (core, expanded, high ambition) (Questions 6.8 to 6.10)**

**Question 6.8 Do you agree or disagree with the above proposal to develop stage 1: core guidance as set out above? Please explain your reasoning.**

There were 46 responses to the Likert scale question. Most respondents 'Agreed' (30 respondents) or 'Strongly agreed' (10 respondents) with the proposal to develop stage 1: core guidance. A small proportion of respondents were 'Undecided' (5 respondents), and one respondent 'Strongly disagreed' with the proposal.

There were 39 responses to the open-text question. Arguments in favour of stage 1 guidance focused on providing clarity for buyers and establishing a consistent foundation for low carbon procurement. Respondents noted that clear early guidance could influence both public and private sector procurement, and a small proportion of respondents emphasised the importance of developing and publishing stage 1 guidance at pace. Others highlighted that a phased approach would allow the policy to evolve over time and give reporting and verification systems space to mature.

A small proportion of respondents suggested specific elements for inclusion, such as reporting templates for embodied emissions, best practice examples, support for building-level WLC assessment and tailoring for sectors with complex supply chains, including

infrastructure and utilities. A small proportion agreed with the proposal in principle but cautioned that stage 1 guidance alone may be insufficient without subsequent expansion. Arguments against the proposal included concerns that guidance should be delayed until the UK steel industry is able to produce lower carbon steel, while respondents who were undecided raised issues relating to fairness, feasibility and the level of information currently available.

**Question 6.9 Do you agree or disagree with the above proposal to develop stage 2: expanded guidance as set out above? Please explain your reasoning.**

There were 47 responses to the Likert scale question. The majority of respondents 'Agreed' (25 respondents) or 'Strongly agreed' (9 respondents) with the proposal to develop stage 2: expanded guidance. Eleven respondents were 'Undecided' and 2 respondents 'Strongly disagreed'.

There were 34 responses to the open-text question. Respondents stated that stage 2 guidance could help buyers make informed decisions and improve consistency across procurement. In comparison to stage 1, respondents expressed slightly more conditional support for stage 2: expanded guidance. While respondents continued to emphasise the value of clearer guidance for improving procurement consistency, some highlighted the need for further detail on scope, implementation and alignment with wider frameworks. A small proportion of respondents suggested specific elements for inclusion. These included standardised approaches to product-level carbon accounting, alignment with international policy developments and UK CPR, WLC assessment and the use of EPDs aligned with EN 15804. Respondents also stressed the need for the guidance to be flexible, regularly updated and include sector-specific detail.

**Question 6.10 Do you agree or disagree with our proposal to develop stage 3 'high ambition guidance' as described above? Please explain your reasoning.**

There were 47 responses to the Likert scale question. Just over half of respondents 'Agreed' (20 respondents) or 'Strongly agreed' (5 respondents) with the proposal to develop stage 3: high ambition guidance. Seven respondents 'Strongly disagreed', 5 respondents 'Disagreed' and 10 respondents were 'Undecided'.

There were 43 responses to the open-text question. Respondents in favour of stage 3 guidance suggested that it could drive innovation, strengthen market signals and accelerate deployment of new technologies. Respondents noted that clear expectations at this stage could simplify low carbon procurement by guiding buyers towards products with lower embodied emissions. Respondents highlighted several considerations for government, the most common being the need for a phased approach that allows sufficient time for industry to adapt. Others raised concerns that product classifications are not yet sufficiently developed, that the guidance could lead to market distortion, including increased imports of lower carbon steel, and that some producers may need more time to transition. The most frequently cited concern was that higher carbon products may, in some cases, enable lower overall emissions through reduced material use or by meeting technical requirements that lower carbon alternatives cannot.

## Evidence needs and cost implications (Questions 6.11 to 6.12)

**Question 6.11 Do you agree or disagree with the proposed types of evidence outlined, or are there other sources of evidence that should be considered? Please provide details and explain your reasoning.**

There were 43 responses to the Likert scale question. The majority of respondents 'Agreed' (24 respondents) or 'Strongly agreed' (9 respondents) with the proposed types of evidence outlined. Six respondents were 'Undecided', while a small proportion of respondents 'Disagreed' (2 respondents) or 'Strongly disagreed' (2 respondents).

There were 36 responses to the open-text question. A small proportion of respondents cautioned that the evidence base would need to be updated regularly to reflect market trends. A similar proportion suggested that the evidence should account for industry-specific challenges, including those faced by the domestic steel and water industries. Just under half of respondents proposed additional types of evidence for government to consider. These included evidence on market failures, carbon leakage and case studies to validate feasibility and cost implications. Others recommended incorporating DPPs, WLC assessments and supply chain readiness assessments. In addition to technical evidence, a small proportion suggested that behavioural insights could be beneficial for understanding how procurement decisions are made, while assessing the wider policy landscape could support interoperability.

**Question 6.12 What would be the cost implications of procuring low carbon products? Please provide details, including how this might change over time.**

There were 35 responses to the Likert scale question. Just over half of respondents indicated that there would 'Probably' (11 respondents) or 'Definitely' (7 respondents) be cost implications of procuring low carbon products. Ten respondents were 'Undecided', while 2 respondents selected 'Probably no' and one respondent selected 'Definitely no'.

There were 45 responses to the open-text question. Around half of respondents noted that costs are likely to be higher initially due to higher production and technology costs, limited supply and competition and additional certification or administrative requirements, though these may fall over time as demand grows. A small proportion highlighted that low carbon products require significant upfront investment, for example, where producers need to adopt new technologies. A minority stated that cost implications remain uncertain, and will vary by product type, supply chain configuration and technological readiness. A small proportion noted that certain low carbon products are already cost comparable to, or cheaper than, traditional alternatives, particularly when considering life cycle efficiencies. Respondents also identified potential advantages for early adopters, including improved market positioning, reduced future transition costs and enhanced resilience. However, a small proportion of respondents cautioned that current demand remains insufficient to drive substantial price reductions, with some calling for targeted financial incentives to stimulate demand and support investment. Respondents also raised concerns that lower cost imports, particularly from the EU, could undermine the competitiveness of domestic producers.

## Circular economy principles in procurement (Questions 6.13 to 6.14)

### **Question 6.13 Do you agree or disagree with including circular economy principles alongside advice in the GBS on procuring low carbon products? Please explain your reasoning.**

There were 49 responses to the Likert scale question. The majority of respondents 'Agreed' (13 respondents) or 'Strongly agreed' (23 respondents) with the proposal to include circular economy principles alongside advice in the GBS. Eight respondents were 'Undecided' and 5 respondents 'Disagreed'.

There were 52 responses to the open-text question. Respondents highlighted several advantages in support of the proposal, noting that circularity can reduce carbon emissions, waste and material use, and promote recycling and reuse. Respondents also identified wider benefits, including support for whole life approaches, improved supply chain resilience and alignment with broader UK policy goals. Others argued that circular economy principles should be introduced later to avoid delaying guidance on low carbon products, or felt that government should continue prioritising carbon reduction as the primary objective. A small proportion of respondents noted that circular approaches do not always reduce embodied carbon and may increase the risk of greenwashing. Respondents suggested that clear guidance would be needed on how to balance circularity with carbon reduction. A small proportion of respondents noted that opportunities for circularity may be more limited for steel, particularly under product classifications that utilise a scrap sliding scale.

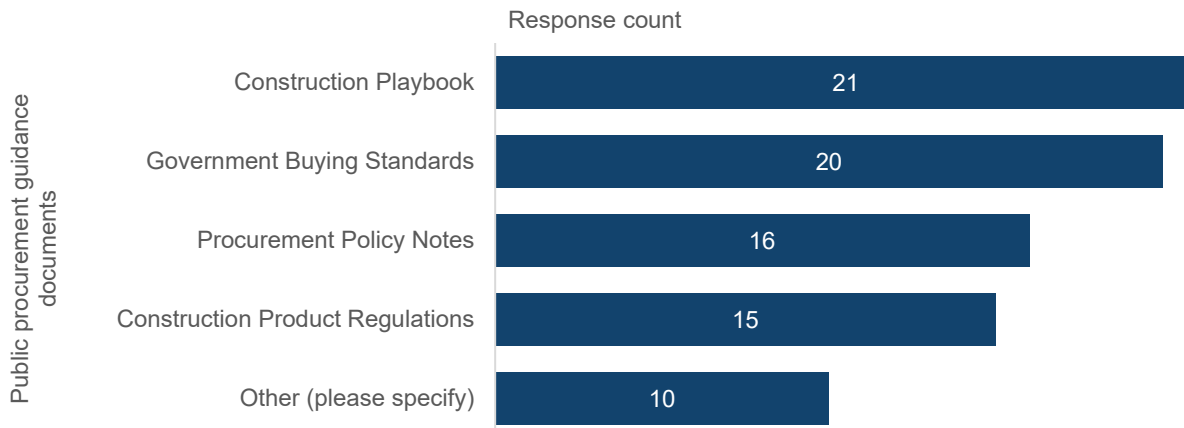
### **Question 6.14 Are there other public procurement guidance documents where circular economy principles should be included? Please explain your reasoning.**

Thirty respondents responded to this multiple-choice question. A majority of respondents felt that circular economy principles should be incorporated into several of the public procurement guidance documents listed. Twenty-one respondents selected 'Construction Playbook', closely followed by 'Government Buying Standards' (20 respondents). Sixteen respondents chose 'Procurement Policy Notes', while 15 respondents chose 'Construction Product Regulations'. Ten respondents selected 'Other'.

There were 31 responses to the open-text question. In justifying their choices, just under half of respondents stated that the Construction Playbook could be a suitable document for embedding circular economy principles, given its influence on early design and material decisions for major infrastructure projects. A minority of respondents highlighted the GBS, noting its potential to encourage the procurement of recycled, remanufactured, or modular goods and to embed consistent requirements across product categories. Those supportive of embedding circular economy principles into the EU CPR suggested it could influence producers' behaviour, though a small proportion argued that its technical focus makes it less appropriate. Just under half of respondents noted that embedding circular economy principles in PPNs could promote wider application across public bodies. A small proportion of respondents suggested inclusion in other frameworks, such as Building Regulations, the Green Book and the National Infrastructure Strategy. Respondents noted that embedding circularity

across all guidance could stimulate demand for recycled materials, provide clarity and consistency for procurers and suppliers, support sustainable resource use and waste reduction, and strengthen supply chain resilience (see Figure 31).

**Figure 31. Aggregated response count to Question 6.14, ‘Are there other public procurement guidance documents where circular economy principles should be included?’ (select all that apply).**



## Policy decisions and next steps

The government welcomes respondents’ views across this chapter on existing product-level green procurement policies, embodied emissions data and product classifications, as well as key barriers and limitations to green procurement. These insights have informed the government’s understanding of the current green procurement landscape and will shape the development of forthcoming guidance.

The government has decided to proceed with the development and publication of stage 1 (core) and stage 2 (expanded) best practice product-level green procurement guidance, reflecting both the evidence received through the consultation and further policy development. This guidance will now be published together, rather than sequentially, as set out in the consultation. Following further policy development, the government will present this consolidated guidance in two separate guidance documents: one tailored for buyers and one for producers. This decision reflects the distinct roles that buyers and producers play in green procurement and is intended to support clearer, more targeted guidance while encouraging greater consistency and uptake of good practice. Both guidance documents will draw on policy thinking from previous chapters and will include guidance on measuring, reporting and using embodied emissions data, as well as advice on setting commitments, collecting and comparing data, engaging suppliers and encouraging the use of product classification models. The government will continue to engage with stakeholders on the development of guidance to ensure it meets users’ needs. Through publishing guidance, the government intends to bring clarity to the procurement landscape. This guidance will incorporate the broader considerations set out in the introduction to help mitigate any potential unintended consequences.

Since the consultation was published, the government has incorporated voluntary good practice low carbon procurement requirements into planned updates to the Government Buying Standards (GBS) for Buildings. Further policy development and stakeholder engagement will be needed to determine any future additions, which could include the introduction of additional mandatory requirements. In line with support received, the government also plans to integrate circular economy principles into the GBS alongside guidance on procuring low carbon products. This may include minimum circularity performance standards for the reuse and recycling of materials, as well as best practice guidance on the use and verification of lower carbon materials. The government will consider respondents' views on including circularity principles in additional public procurement documents and will take these views into account as it considers how circularity can be more consistently reflected across public procurement frameworks.

The government is not yet in the position to develop stage 3 (high ambition) guidance, which could specify which products should or should not be purchased, but this decision will be kept under review.

# Chapter 7: Longer term policy options

## Chapter overview

This chapter set out longer term options to further develop the market for low carbon products, focusing on the potential evolution of product ecolabelling policies and mandatory product standards. It also considered the scope to expand low carbon product market policies beyond steel, cement and concrete, and consulted on whether additional forms of policy intervention should be explored in future.

### Ecolabelling objectives and future policy direction (Questions 7.1 to 7.3)

**Question 7.1 Is there anything else that the government should consider in terms of its objectives, audiences, and possible use cases for any future work on product ecolabelling? If so, please provide details.**

There were 49 responses to this open-text question. The majority of respondents highlighted the importance of robust third-party verification and transparent methodologies in any future product ecolabelling approach. Respondents noted that ecolabels should align with existing frameworks such as EPDs and DPPs, integrate with wider government policies and reflect international standards. A small proportion of respondents stated that ecolabels should quantify carbon abatement and be embedded within broader sustainability and circular economy practices.

Respondents identified a range of relevant audiences, including public and private procurers, manufacturers, designers, engineers and the public. A small proportion of respondents emphasised that different audiences require different levels and formats of information for ecolabelling to be meaningful and accessible. Respondents also noted potential use cases for ecolabelling, including supporting sustainable procurement and improving consumer choice. A small proportion stated that ecolabels could be integrated into existing environmental data reporting systems or used to address greenwashing. A minority of respondents commented that existing mechanisms such as EPDs, WLC assessments and building-level assessment schemes like Building Research Establishment Environmental Assessment Method (BREEAM) already meet industry needs and questioned the necessity of additional ecolabelling tools.

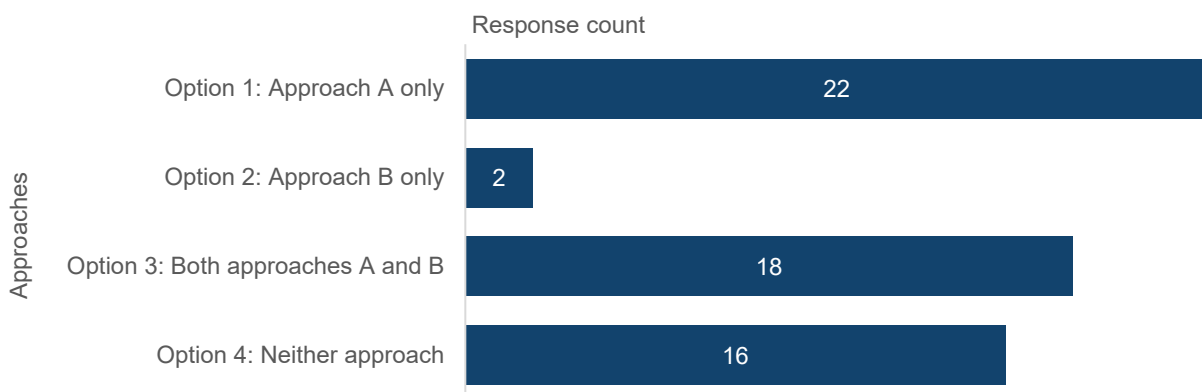
**Question 7.2 Do you agree or disagree that either approaches A or B, to (A) utilise existing ecolabels, or (B) develop new forms of ecolabel could be beneficial? Please explain your reasoning and specify if there are any options within these approaches that the government should consider.**

There were 58 responses to the single-choice question. The largest group of respondents selected utilising existing ecolabels (Option 1: Approach A only) (22 respondents). This was followed by utilising existing ecolabels and developing new forms of ecolabel (Option 3: both approaches A and B) (18 respondents) and 'Neither approach' (Option 4) (16 respondents). A

small proportion of respondents selected developing new forms of ecolabel (Option 2: Approach B only) (2 respondents).

There were 51 responses to the open-text question. Arguments in favour of utilising existing ecolabels (Option 1) stated that established schemes are familiar to industry, can reduce administrative burden and support international alignment. Respondents noted that building on existing ecolabels could add value by improving consistency, interoperability and efficiency, particularly in relation to DPPs and other EU measures. Similarly, a minority of respondents cautioned against developing new ecolabels where these would duplicate existing schemes, increase administrative burdens, reduce data precision or create overlapping and competing labels (see Figure 32).

**Figure 32. Aggregated response count to Question 7.2, ‘Do you agree or disagree that either approaches A or B, to (A) utilise existing ecolabels, or (B) develop new forms of ecolabel could be beneficial?’ (select one).**

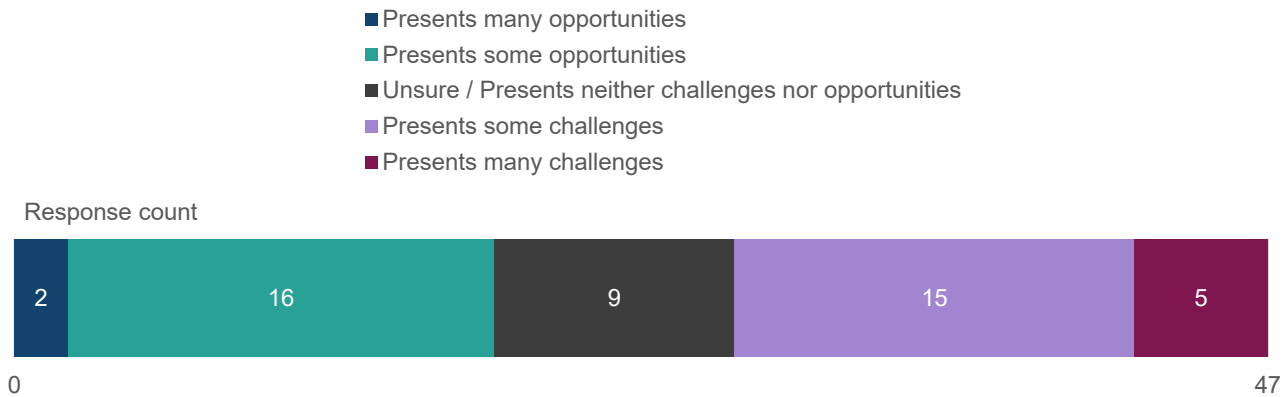


Those in favour of a combination of utilising existing ecolabels and developing new ones (Option 3) argued that new ecolabels may be appropriate to address gaps not covered by current schemes, provided they complement rather than duplicate existing approaches. A small proportion of respondents said that they chose neither approach (Option 4), because ecolabelling alone is not a sufficient driver of decarbonisation and expressed concerns about divergence from international standards or limited applicability to construction products.

**Question 7.3 Do you believe that the EU’s development of Digital Product Passports (DPPs) for steel and cement will create opportunities or challenges for UK businesses and the government’s objectives for ecolabelling? Please explain your reasoning and provide details of any specific opportunities or challenges that the government should consider.**

There were 47 responses to the Likert scale question. Views were mixed. The largest groups of respondents felt that the EU’s development of DPPs would ‘Present some opportunities’ (16 respondents) or ‘Present many opportunities’ (2 respondents). Fifteen respondents said it would ‘Present some challenges’, while 5 respondents indicated it would ‘Present many challenges’. Nine respondents were ‘Unsure’ (see Figure 33).

**Figure 33. Aggregated response count to Question 7.3, ‘Do you believe that the EU’s development of Digital Product Passports (DPPs) for steel and cement will create opportunities or challenges for UK businesses and the government’s objectives for ecolabelling?’ (select one).**



There were 52 responses to the open-text question. Respondents expressed mixed views on EU DPPs, identifying both opportunities and challenges for UK businesses with no clear consensus. A minority of respondents warned that diverging from EU regulation could be disadvantageous. A small proportion of respondents identified additional challenges and risks, including implementation and knowledge gaps, system requirements, alignment with standards and data interoperability. Respondents noted that these issues could lead to dual reporting obligations, increasing costs and administrative burdens, particularly for SMEs. Respondents highlighted several opportunities. A minority suggested that alignment with EU data frameworks could support international trade. A small proportion reported that DPPs could improve compliance, enhance supply chain standardisation and transparency and streamline access to verified product-level emissions data.

### Mandatory product standards and future policy direction (Question 7.4)

**Question 7.4 Should the government consider any additional information or developments since the previous consultation as the government continues to explore whether there is a role for mandatory product standards (MPS) from the late 2020s?**

There were 40 responses to this open-text question. Respondents highlighted a range of key information and developments for the government to consider as it explores the potential future role of MPS.

A minority of respondents stressed that MPS should be introduced gradually, warning that premature or poorly aligned standards could disrupt supply chains or risk deindustrialisation. They recommended starting with voluntary reporting, data harmonisation and SME support before moving to sector-specific mandatory requirements once data quality and verification systems are sufficiently mature. A small proportion of respondents argued that, if implemented effectively, MPS could provide a strong market signal, drive innovation and create long term investment certainty. Respondents emphasised the importance of alignment with EU and domestic regulatory developments, including DPPs, the revised EU CPR and UK CPR

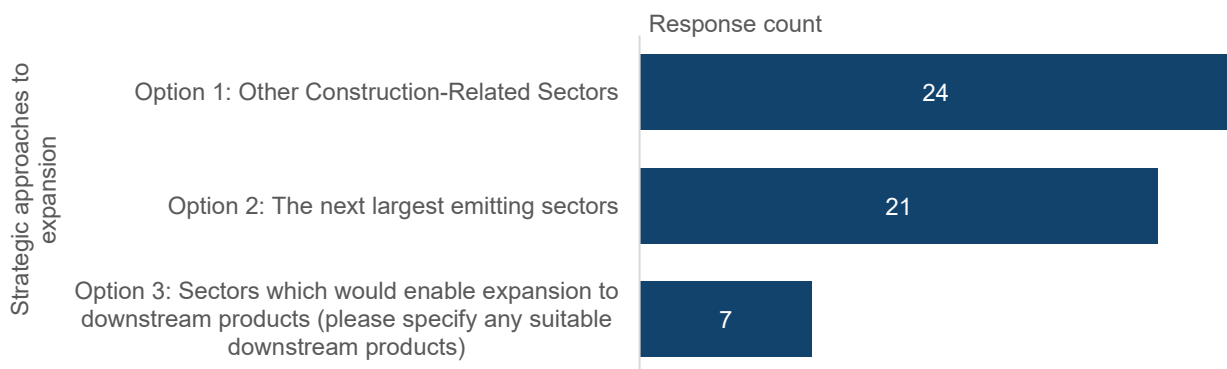
proposals and the UK CBAM, noting that divergence could result in trade friction or dual reporting burdens. A small proportion further noted that industry capability has advanced, though readiness remains uneven, particularly among SMEs and sectors without validated low carbon pathways.

### Sector expansion and longer term policy options (Questions 7.5 to 7.7)

#### **Question 7.5 Which of the proposed strategic approaches to expansion do you prefer? Please explain your reasoning.**

There were 52 responses to the single-choice question. Just under half of respondents (24 respondents) favoured expansion into ‘Other Construction-Related Sectors’ (Option 1), while 21 respondents supported expansion into ‘The next largest emitting sectors’ (Option 2) and 7 respondents supported expansion into ‘Sectors which would enable expansion to downstream products’ (Option 3) (see Figure 34).

**Figure 34. Aggregated response count to Question 7.5, ‘Which of the proposed strategic approaches to expansion do you prefer?’ (select one)**



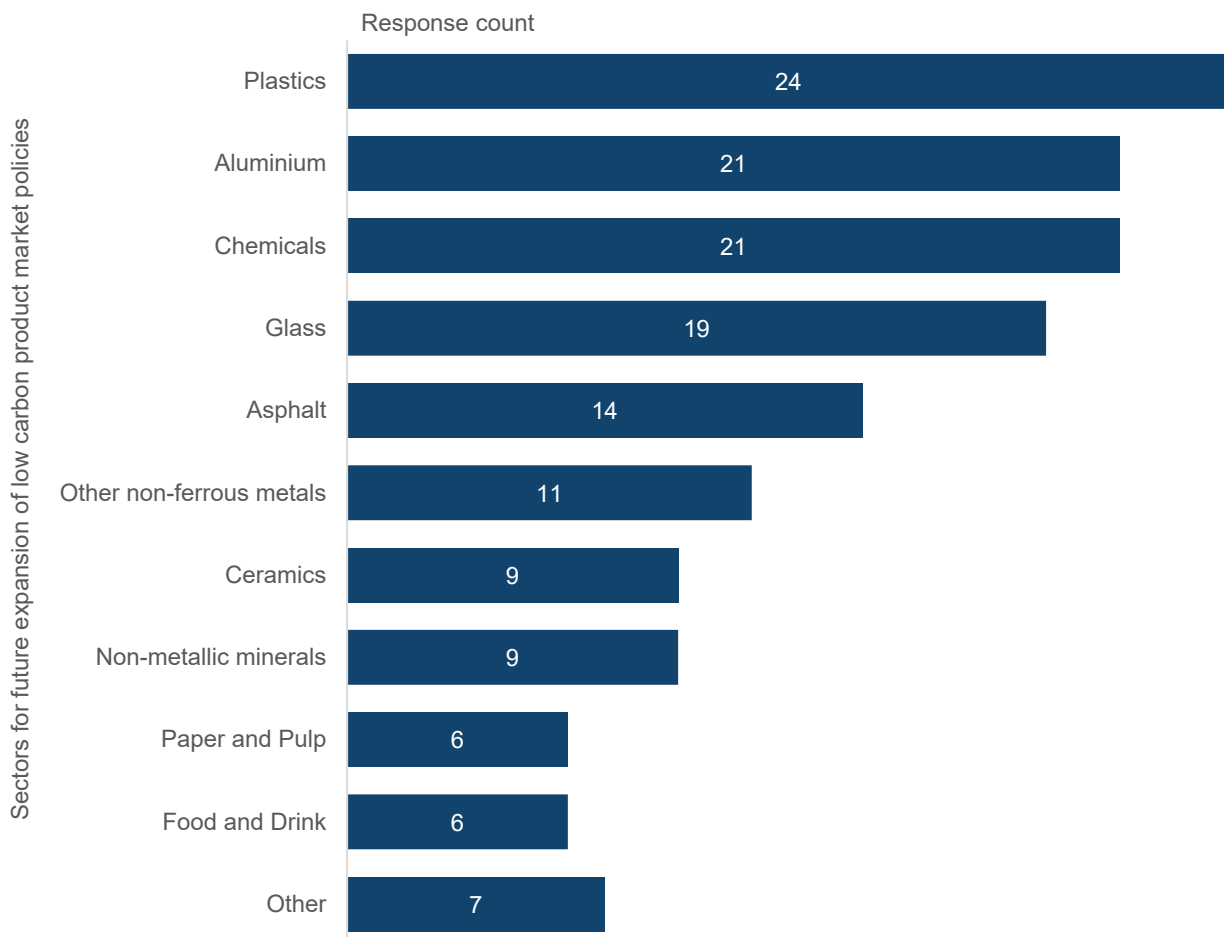
There were 52 responses to the open-text question. Arguments in favour of expansion into other construction related sectors (Option 1) suggested that this could represent a pragmatic, high-impact next step, reflecting the construction sector’s significant embodied carbon footprint and alignment with existing decarbonisation policies. Respondents noted that broadening coverage across construction products would allow government to build on established data, standards and procurement levers while enabling earlier emissions reductions. Respondents stated that expansion into the next largest emitting sectors (Option 2) would deliver faster, economy wide decarbonisation and align with wider strategic priorities. Respondents emphasised that any expansion should be impactful, internationally aligned and carefully sequenced to avoid market distortion or disproportionate impacts on specific industries. Arguments in favour of expanding into sectors enabling downstream product coverage (Option 3) suggested this could unlock wider value chain and circular economy benefits but cautioned that this would require clear justification given the lower direct emissions impact.

#### **Question 7.6 Regardless of overall strategic approach, please note any specific sectors you think should be a priority in any future expansion of low carbon product market policies. Please explain your reasoning.**

There were 147 responses to the multiple-choice question. The most frequently prioritised sector was ‘Plastics’ (24 respondents). This was followed by ‘Aluminium’ (21 respondents), ‘Chemicals’ (21 respondents), and ‘Glass’ (19 respondents).

There were 41 responses to the open-text question. Respondents noted that focusing on plastics, aluminium and chemicals reflects their high emissions, energy intensive production, economy-wide use and strong circularity potential. Respondents argued this would support early, high-impact emissions reductions, particularly where recycled content and process innovation could be scaled through clear policy signals (see Figure 35).

**Figure 35. Aggregated response count to Question 7.6, ‘Regardless of overall strategic approach, please note any specific sectors you think should be a priority in any future expansion of low carbon product market policies.’ (select all that apply).**

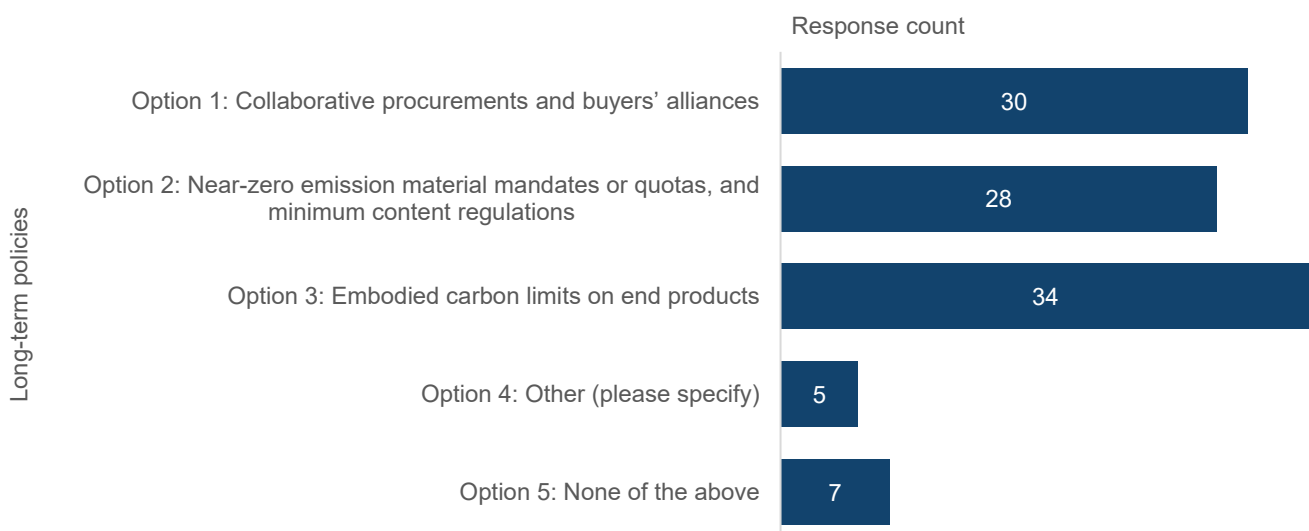


A minority of respondents highlighted construction adjacent sectors such as glass and asphalt, citing their emissions intensity, widespread use in the built environment and the opportunity to build on existing construction data, standards and procurement levers. A small proportion of respondents advocated for a broad ‘all high emitting sectors’ approach or nominated other nonferrous metals, paper and pulp, and non-metallic minerals. These respondents emphasised the importance of tackling emissions across the full industrial landscape but noted that expansion should be sequenced and internationally aligned to avoid unintended market or trade impacts.

**Question 7.7 Should the government explore any of the long term policies suggested in this section? Please explain your reasoning.**

There were 104 responses to the multiple-choice question. When asked which long term policies the government should explore, the largest group of respondents (34 respondents) favoured ‘Embodied carbon limits on end products’ (Option 3). Thirty respondents chose ‘Collaborative procurement and buyers’ alliances’ (Option 1), while 28 respondents selected ‘Near-zero emission material mandates or quotas and minimum content regulations’ (Option 2). Five respondents selected ‘Other’ long term policies (Option 4), while 7 respondents chose ‘None of the above’ (Option 5) (see Figure 36).

**Figure 36. Aggregated response count to Question 7.7, ‘Should the government explore any of the long term policies suggested in this section?’ (Select all that apply).**



There were 59 responses to the open-text question. Most respondents agreed that government should explore one or more of the long term policy options presented, indicating broad support for further action. Respondents who favoured embodied carbon limits on end products (Option 3) highlighted the potential to drive whole life decarbonisation and stimulate demand for low carbon products by offering a clear framework for reducing embodied emissions while supporting competitiveness in international markets. Those who favoured collaborative procurement and buyers’ alliances (Option 1) and near zero emission material mandates or quotas and minimum content regulations (Option 2) viewed these as effective tools for aggregating demand, encouraging industry innovation and reducing investment risk, particularly in hard to abate sectors, by providing predictable long term market signals. A small proportion of respondents proposed alternative approaches, most commonly advocating for building-level regulation to avoid potential unintended consequences of material specific policies. A small proportion indicated that none of the long term options should be pursued.

## Policy decisions and next steps

The government welcomes stakeholders’ views on the proposed longer term policy options set out in this chapter. At this stage, the government does not intend to pursue the development of

these longer term policies and will prioritise the development of the initial policy framework set out in Chapters 2-6. This reflects the rationale set out in the consultation. Work on Digital Product Passports will be taken forward separately from the proposals set out in this technical consultation, as this policy area sits with the Department for Business and Trade. The findings from this consultation have been shared with the Department for Business and Trade.

The government recognises that additional evidence and engagement will be required to determine whether, when and how mandatory product standards (MPS) could be introduced, including consideration of sequencing, data readiness and alignment with other policy frameworks.

The government has also considered respondents' views on expanding the low carbon product policy framework to additional sectors. While this will not be progressed at this stage, wider work to tackle decarbonisation across key industries is ongoing and the government recently commissioned City Science to undertake research into the cement, lime, refining and chemicals industries. This research considers the conditions necessary for these sectors to succeed in a low carbon economy, and the collaborative actions required from government and industry to achieve this.

The government will prioritise delivery of the initial policy framework, and over time, will continue to explore the longer term options outlined in this chapter, informed by the views submitted through this consultation and further policy development.

# Annex A: Analysis methodologies

## Methodology

The consultation was open and self-selecting and received 109 responses from a range of stakeholders submitted through Citizen Space (91 respondents) and by email (18 respondents).

Responses submitted by email were interpreted and mapped to the relevant consultation questions before being incorporated into the main response dataset. This process was peer-reviewed and quality assured to minimise the risk of misinterpretation and ensure consistency with responses submitted via Citizen Space.

Where respondents submitted more than one response, we contacted them to confirm which should be retained and removed the other responses accordingly.

To mitigate potential conflicts of interest, we excluded responses to certain questions from individuals directly associated with a given product classification. This included cases where respondents voted favourably for their own classification when asked which option was best suited to meet the policy aims.

The distribution of respondents by sector and role is presented in the introduction for context, with sector<sup>24</sup> indicating the part of the economy most relevant to responses and role<sup>25</sup> reflecting how organisations engage with low-carbon product markets. As respondents were not asked to self-identify their sector or role, categorisation was undertaken based on policy knowledge and desk-based research.

## Analysis

Responses to closed questions were analysed using descriptive analysis and quantitative findings were used to understand the distribution of views across response options and respondent groups.

Responses to open-ended questions were analysed using qualitative thematic analysis to identify key themes and to understand the reasoning behind respondents' views. An inductive

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<sup>24</sup> Sector categories included cement and concrete (Cement/concrete); construction activities and professions (Construction); energy and wider infrastructure systems (Energy/infrastructure); steel production, supply and use (Steel); organisations operating across more than one core sector (Multisector); and organisations operating outside the core sectors in scope of the consultation (Other sectors and stakeholders).

<sup>25</sup> Role categories included organisations focused on research, evidence generation and advocacy (Academia and non-governmental organisations); organisations providing specialist technical or advisory services (Consultancies); public bodies acting as procurers of construction materials (Contracting authorities); membership-based bodies representing sector or professional interests (Industry associations); organisations involved in the production, supply or use of construction products (Suppliers and construction companies); and organisations with an interest in the policy framework that do not fall within the other categories (Other stakeholders).

approach was applied, with themes developed from the data rather than predefined in advance.

Proportionate quality assurance processes were applied throughout, including peer review of data processing and systematic and iterative reviews of coding, coding frames and summaries by senior analysts and policy colleagues.

## Limitations

As with all open consultations, findings reflect the views of those who chose to respond and should be interpreted with appropriate caution.

A small number of inconsistencies were identified between responses to closed questions and accompanying qualitative responses.

Qualitative coding involves analyst judgement, and this analysis involved the processing and quality assurance of a large volume of qualitative data. This risk was mitigated through documented methodologies and templates, peer review, iterative refinement of coding frames, and proportionate QA, though some residual subjectivity remains.

These limitations are not considered material, and the analysis is judged to be robust and fit for purpose. The findings are intended to inform policy development by highlighting key themes, trade-offs and areas of uncertainty.

## Annex B: Glossary of terms, acronyms and initialisms

<b>Advanced Market Commitments (AMCs)</b>	Advance market commitments (AMCs) are agreements by procurers to create a market for innovative products or services that aren't yet commercially developed, based on pre-agreed technical specifications. As such, AMCs incentivise research and development by promising to purchase its outputs, promoting innovation through a pull mechanism rather than traditional push mechanisms like grants.
<b>Arup</b>	Arup is a global firm of designers, engineers, planners, and technical experts committed to sustainable development.
<b>Assessment criteria</b>	In this context, this refers to specified objectives our policies or proposals can be measured against.
<b>Building Research Establishment Environmental Assessment Method (BREEAM)</b>	BREEAM is a science-led framework for assessing, benchmarking and certifying the sustainability performance of buildings and other built assets across their life cycle.
<b>Buyers</b>	Individuals or organisations that purchase industrial products, such as those in the construction or automotive sectors.
<b>By-product</b>	A product produced incidentally as a secondary result of the production of the main product. By-products are typically lower in both volume and value relative to co-products.
<b>Carbon accounting</b>	In this context, carbon accounting refers to the CO <sub>2</sub> e emissions associated with a good, usually but not always it's production.

<p><b>Carbon Border Adjustment Mechanism (CBAM)</b></p>	<p>Carbon Border Adjustment Mechanism (CBAM) is a policy to put a comparable price on the carbon emitted during the production of carbon intensive goods that are entering a jurisdiction with an Emission Trading Scheme that puts a price on greenhouse gases (GHGs) emitted in domestic production. There has been an EU CBAM in place since the beginning of 2026. A UK CBAM is intended in place by 2027.</p>
<p><b>Carbon capture usage and storage (CCUS)</b></p>	<p>A technology aimed at capturing carbon dioxide (CO<sub>2</sub>) emissions from industrial processes, power plants, and other sources, preventing them from entering the atmosphere and contributing to climate change.</p> <p>The captured CO<sub>2</sub> can then be either reused in various industrial applications or stored permanently in geological formations deep underground. The CO<sub>2</sub> is then monitored to make sure that it is stored securely.</p>
<p><b>Carbon price</b></p>	<p>This refers to placing a monetary cost on a unit of CO<sub>2</sub> or CO<sub>2</sub>e emissions.</p>
<p><b>Carbon dioxide equivalent (CO<sub>2</sub>e or CO<sub>2</sub>eq or CO<sub>2</sub>-e or CO<sub>2</sub>-eq)</b></p>	<p>The mass of CO<sub>2</sub> that would warm the earth as much as the mass of that gas. Thus, it provides a common scale for measuring the climate effects of different gases. It is calculated as GWP times mass of the other gas.</p>
<p><b>Carbon leakage</b></p>	<p>The displacement of production, and associated greenhouse gas emissions, in ways that would not have happened if the pricing (or regulation) of emissions across jurisdictions was implemented in an equivalent way.</p>
<p><b>CARES</b></p>	<p>CARES is a UK-based independent provider of assured certification for the constructional steels industry. The CARES Sustainable Constructional Steels (SCS) certification scheme launched in 2009 and sets a broad range of requirements across environmental, social and economic management. It also sets mandatory</p>

	and voluntary thresholds on the embodied emissions of steel products.
<b>Cement</b>	Cement is a fine, powdery substance made from a mixture of primary raw materials such as limestone and clay. These materials are quarried using heavy machinery or blasting, then broken down into smaller pieces at cement plants. The processed materials are then heated to high temperatures in kilns and ground into a fine powder. Once combined with gypsum, this becomes Portland cement. When mixed with water, cement forms a paste that hardens over time and acts as a binder in concrete and mortar.
<b>Chain of custody</b>	Chain of custody is a method in which inputs and outputs and associated information are transferred, monitored and controlled as they move through each step in the relevant supply chain.
<b>Circular economy</b>	An approach to managing resources that involves products and materials being kept in use for as long as possible, extracting maximum value from them. It means products and materials are reused, repaired, remanufactured, recycled or regenerated whenever possible and appropriate.
<b>Concrete</b>	Concrete is a composite material made of cement, water, and aggregates like sand, gravel, or crushed stone. The cement binds the aggregates together, and when mixed with water, forms a hard, stone-like material.
<b>Construction Leadership Council (CLC)</b>	The CLC works with the construction industry and government to improve the industry's productivity, skills, safety, and sustainability. They launched the 'Five Client Carbon Commitments' (5CCCs) in April 2024 to encourage UK construction clients to drive demand for low carbon solutions.

<b>Co-product</b>	A product produced together with another product during the same industrial process or product system.
<b>Decarbonisation</b>	A process of reducing the greenhouse gases we release into the atmosphere.
<b>Declared unit</b>	This metric measures CO <sub>2</sub> e or GWP per quantity, typically by mass or volume (e.g. 'CO <sub>2</sub> e per kg of steel' or 'CO <sub>2</sub> e per m <sup>3</sup> of cement').
<b>Default values</b>	A form of secondary data that substitute embodied emissions for products or input goods based on averages instead of the actual result based on primary data for that particular product. For example, crude steel could have a 'default value' of 400kg of CO <sub>2</sub> e per tonne based on a global average.
<b>Digital Product Passport (DPP)</b>	A Digital Product Passport (DPP) is a standardised digital record that provides accessible information about a product's origin, environmental impacts and end-of-life considerations to improve transparency and support sustainability across value chains.
<b>Discovery</b>	Discovery is a pre-delivery project phase that aligns stakeholders on vision, objectives and goals, outlines the solution and defines foundations for successful delivery.
<b>Ecodesign for Sustainable Products Regulation (ESPR)</b>	The ESPR is an EU framework regulation that establishes how product design requirements will be set to improve the sustainability, durability, circularity and environmental performance of products placed on the EU market.
<b>Ecolabelling</b>	Product labelling is a mark or label on a product's packaging which conveys information to the consumer about the product's unique value. For example, a label might signal that a product has been certified as meeting a particular standard.  Ecolabelling is a specific form of product labelling that certifies a product's environmental impacts

	based on defined criteria and thresholds, empowering consumers to make informed, sustainable choices.
<b>Electric arc furnace (EAF)</b>	A type of furnace that melts scrap steel and other metals using the heat generated by a high-power electric arc.
<b>Embodied emissions</b>	The sum of all the emissions produced in the manufacture, use and end of life stages of a product, outside of operational emissions. This includes (but is not limited to) emissions from the extraction and transportation of raw materials, and the manufacturing processes used to create the final product.
<b>Embodied emissions reporting framework (EERF)</b>	Aims to help producers and buyers of industrial products measure, report and verify emissions for eligible products. Initial proposals include: 1) carbon accounting guidance and 2) an IT system with a centralised database to streamline, standardise and reduce the cost of reporting.
<b>Emissions Trading Scheme (ETS)</b>	A 'cap and trade' emissions pricing policy. There are ETSs in different jurisdictions including the EU ETS and UK ETS. The UK ETS provides a long term carbon price signal for UK heavy industry, aviation and power sectors to incentivise sector decarbonisation and support the UK to meet its legally binding carbon reduction targets.
<b>End consumer</b>	The end-user or consumer of a product that is not sold on or used in the manufacture of another product.
<b>Environmental impacts</b>	Changes in the natural or built environment resulting from an activity, which can have adverse or beneficial effects on the air, land, water, fish, wildlife, or the ecosystem.
<b>Environmental Product Declaration (EPD)</b>	An independently verified report that communicates what a product is made of and

	how it impacts the environment across its entire life cycle.
<b>EPD generator</b>	A programme that simplifies the generation of an EPD.
<b>EU Construction Products Regulation (EU CPR 2024)</b>	The EU CPR sets out harmonised rules for the marketing of construction products in the EU. It establishes a common technical framework for assessing and declaring product performance, including safety and sustainability information, to support the free movement of construction products within the EU single market
<b>Functional unit</b>	This metric quantifies emissions based on the product's performance in its end use, including its expected lifespan (e.g. 'x amount of CO <sub>2</sub> e in a 1-tonne steel beam, S grade designed to last for 80 years in a building' or 'x amount of CO <sub>2</sub> e in 1 m <sup>3</sup> of concrete with a strength class of C20/80 to be used for 60 years in a building' are functional units.
<b>Global Cement and Concrete Association (GCCA)</b>	The GCCA works with the global cement and concrete industry to drive sustainable and low carbon practices. Its members represent 80% of global cement production outside of China and includes several large Chinese manufacturers.
<b>Global Steel Climate Council (GSCC)</b>	GSCC is a non-profit association dedicated to advancing climate strategy for the steel industry. They published the Steel Climate Standard which is a steel product classification model.
<b>Global Warming Potential (GWP)</b>	A measure of how much heat a greenhouse gas traps in the atmosphere over a specific time period, relative to carbon dioxide (CO <sub>2</sub> ). It is expressed as a multiple of warming caused by the same mass of carbon dioxide (CO <sub>2</sub> ). Therefore, CO <sub>2</sub> has a GWP of 1. For other gases it depends on how strongly the gas absorbs thermal radiation, how quickly the gas leaves the atmosphere, and the time frame considered.

<b>Government Buying Standards (GBS)</b>	The GBS set out minimum mandatory and best practice sustainability criteria for the procurement of goods and services. They are mandatory for central government departments and their related organisations, and encouraged for use across the wider public sector.
<b>Greenhouse gas (GHG) emissions</b>	Addition to the atmosphere of gases that are a cause of global warming, including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride.
<b>Ground granulated blast furnace slag (GGBS)</b>	A by-product in the steel industry, used for example as a substitute for cement clinker.
<b>Gross emissions</b>	In this context gross emissions means total emissions from production, opposed to ‘net emissions’ – the total emissions minus the emissions from waste fuels including non-biogenic fuels.
<b>Industrial decarbonisation</b>	The process of reducing or eliminating carbon dioxide emissions from industrial processes and energy consumption. This includes switching to low carbon energy sources like hydrogen and electrification, developing technologies like carbon capture and storage (CCUS), and improving energy efficiency.
<b>Industry</b>	In this context, industry refers to businesses and organisations engaged in manufacturing, refining, coke production and mining activities.
<b>Industrial Deep Decarbonisation Initiative (IDDI)</b>	The IDDI is a global coalition of public and private organisations who are working to stimulate demand for low carbon industrial materials. It was co-founded by the UK and India at COP26.
<b>Innovate UK (UKRI)</b>	Innovate UK is the UK’s national innovation agency, supporting business-led innovation across all sectors, technologies and UK regions. Innovate UK is part of UK Research and Innovation (UKRI).

<p><b>International Energy Agency (IEA)</b></p>	<p>The IEA works with governments and industry to shape a sustainable energy future. They provide data, analysis and policy recommendations on the global energy system and industrial decarbonisation. They have set approaches to market policies, like product classifications, to grow the market for low carbon industrial products like steel, cement and concrete.</p>
<p><b>International Organization for Standardization (ISO)</b></p>	<p>ISO is an independent, non-governmental international organisation that produces standards, including many relevant to low carbon products. The ISO 14000 series is a family of standards focussing on environmental management systems (EMS). An EMS is a system which integrates policy, procedures and processes for training of personnel, monitoring, summarising, and reporting of specialised environmental performance information to internal and external stakeholders of a firm.</p>
<p><b>Interoperability</b></p>	<p>The ability of a system or a product to work with other systems or products without any special effort required from the user. In a digital context, interoperability is the ability of systems to combine and use data from various sources with ease, coherence and efficiency. Similarly, in the context of carbon intensity metrics, interoperability would facilitate the combination and use of data from various sources and ensure correct comparisons.</p>
<p><b>Large and multinational enterprises (MNEs)</b></p>	<p>Enterprises that:  operate in more than one country; and  do not qualify as small or medium-sized enterprises (SMEs).</p>
<p><b>Life cycle assessment (LCA)</b></p>	<p>Life cycle assessment (LCA) is a technique to assess environmental impacts associated with all the stages of a product's life, from raw material extraction through materials processing, manufacture, distribution, and use. LCAs are divided into stages (e.g. manufacture, use, and</p>

	disposal) and more specific modules within those stages.
<b>Life cycle inventory (LCI) database</b>	LCI databases contain information on the average environmental footprint of most materials and processes used in manufacturing goods. They are often used when creating product level LCAs, particularly when a producer requires information of which they do not have knowledge.
<b>Low Emission Steel Standard (LESS)</b>	In 2024, the German Steel Association (VW Stahl), based on a stakeholder process organised by the German Federal Ministry for Economic Affairs and Climate Action (BMWK), launched the Low Emission Steel Standard (LESS). LESS is a product classification which categorises steel products based on their embodied emissions.
<b>Lower Carbon Concrete Group (LCCG)</b>	Formed in 2020 under the Green Construction Board, the UK LCCG brings together professionals from the concrete and cement industry, academia and engineering to reduce the carbon footprint of concrete.
<b>Mandatory product standards (MPS)</b>	Regulations requiring products to meet certain criteria to be placed on the market.
<b>Manufacturers</b>	Manufacturers are a subset of producers who specifically focus on transforming raw materials into finished goods through various processes and machinery.
<b>Mineral Products Association (MPA)</b>	The MPA is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and industrial sand industries in the UK.
<b>Net zero</b>	Refers to a point at which the amount of greenhouse gas being put into the atmosphere by human activity in the UK equals the amount of

	greenhouse gas that is being taken out of the atmosphere.
<b>Operationally ready</b>	In this context, operationally ready refers to a policy, standard, (or similar) that can be adopted without further work to create or implement.
<b>Organisation for Economic Co-operation and Development (OECD)</b>	A forum and knowledge hub for data, analysis and best practices in public policy
<b>Primary data</b>	Information directly collected or measured by the producer that is highly specific and accurate.
<b>Procurement</b>	The award, entry into, and management of a contract for the purposes of purchasing goods, works or services. Procurement may also refer to any additional steps taken for the purpose of these activities, such as preliminary market engagement.
<b>Producers</b>	Producers are entities or individuals that create goods or services. This can include everything from raw material extraction to the creation of finished products.
<b>Product Carbon Footprint (PCF)</b>	A PCF is a broad term to refer to the CO <sub>2</sub> (and sometimes other GHG emissions) associated with a product. They can be generated according to a variety of measurement standards and not necessarily independently verified.
<b>Product Category Rule (PCR)</b>	A PCR sets out the specific rules, requirements and calculation methods for assessing and reporting the environmental impacts of a defined product category.
<b>Product classification</b>	Help to define low carbon steel, cement, and concrete by establishing a model that categorises these products based on their embodied emissions. These models set thresholds for different levels of emissions intensity (such as A to G ratings), helping buyers

	compare and understand the climate impact of their purchases.
<b>Resource efficiency</b>	Resource efficiency is the optimisation of material use so that the same level of consumption can be met with less material input. This can occur at production, consumption, or end of product life, for example: making lighter products, using recycled materials, product sharing and improving product lifespan.
<b>ResponsibleSteel</b>	ResponsibleSteel is a global, not for profit organisation promoting socially and environmentally responsible near zero steel production. They have established product classification for steel called ResponsibleSteel Decarbonisation Progress Levels (DPLs).
<b>Scrap sliding scale (also known as a sliding scale)</b>	Scrap sliding scale is an approach to steel product classification models where thresholds change based on the proportion of scrap used in production. Producers using higher proportions of scrap face a lower (stricter) threshold than producers using lower proportions of scrap, meaning additional decarbonisation steps must be taken beyond scrap utilisation to meet better ratings.
<b>Secondary / generic data</b>	Data that is used by an organisation but not directly produced by it, unlike 'primary data'. Often but not always, secondary data are emissions factors where an input or precursor good (such as iron ore which is an input good for steel production) has a specified emissions factor per mass of the good. For example, an emissions intensity factor for iron ore mining (e.g. 'Xkg of CO2e per unit of iron ore') that a steel producer can use when they buy a mass of iron ore and add to their own primary data for the product carbon footprint (PCF).
<b>Sector</b>	A grouping of businesses that procure or sell similar products (e.g. the chemicals sector).

<p><b>Small and medium-sized enterprises (SMEs)</b></p>	<p>To qualify as an SME an enterprise must have:  fewer than 250 staff; and  less than or equal to £44m in annual turnover or a balance sheet total of less than or equal to £38m.</p>
<p><b>Steel</b></p>	<p>Steel is an alloy primarily made from iron and carbon.</p>
<p><b>Steel Standards Principles (SSP)</b></p>	<p>Aims to establish common emissions measurement methodologies for steel to accelerate the transition to near zero. The Principles were launched at COP 28 in 2023 and are endorsed by multiple organisations.</p>
<p><b>Strength class</b></p>	<p>Strength classes categorise concrete based on its compressive strength, measured in megapascals (MPa) after 28 days of curing. These classes ensure that the concrete used in construction meets the necessary performance requirements for safety and durability.</p>
<p><b>Supply chain</b></p>	<p>The entire process of making and selling goods, which may involve intermediate products transferring between businesses who undertake different manufacturing stages, before becoming end-consumer products.</p>
<p><b>System boundary</b></p>	<p>The parameters of emissions measurement in a product’s production process. A wider system boundary or ‘scope’ includes more environmental impacts, such as GHG emissions from input goods and transport of those goods (upstream) or GHG emissions from the use and disposal of products (downstream). Different standards categorise and include or exclude activities differently.</p>
<p><b>UK Construction Products Reform (CPR)</b></p>	<p>The UK CPR refers to the government’s programme of regulatory reform to strengthen the construction products regime in Great Britain. The reforms aim to improve product safety, ensure clearer and more accessible information, and strengthen oversight and accountability.</p>

<p><b>U.S. Environmental Protection Agency (EPA)</b></p>	<p>The U.S. EPA holds responsibility for the protection of human health and the environment in the US. They also issued interim determinations outlining criteria for the Federal Highway Administration (FHWA) and the General Services Administration (GSA) to select lower emissions materials.</p>
<p><b>Verification</b></p>	<p>Verification ensures the accuracy, reliability, and transparency of environmental claims. In an EPD context, verification must be independent and, ensuring the EPD aligns with relevant standards and provides a credible assessment of a product's environmental impact.</p>
<p><b>Whole life carbon (WLC)</b></p>	<p>Refers to the total GHG emissions associated with a building or infrastructure asset across its entire life cycle, including emissions from material production and construction, operation and maintenance, and end-of-life activities.</p>
<p><b>World Steel Association (worldsteel)</b></p>	<p>worldsteel is a non-profit organisation that represents the global steel industry.</p>
<p><b>World Trade Organisation (WTO)</b></p>	<p>An international body that regulates and facilitates global trade between nations.</p>

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