Office for Product Safety & Standards

Evolution of the Construction Product Regulatory Landscape, December 1988 – July 2024

Harlow Consulting

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This report was commissioned by the Office for Product Safety and Standards and prepared by Harlow Consulting.

The views expressed in this report are those of the authors, Harlow Consulting, and not necessarily those of the Office for Product Safety and Standards (OPSS) or the Department for Business and Trade (DBT), nor do they necessarily reflect or constitute government policy. This report was finalised in July 2024, prior to the Government announcement on the extension of CE marking recognition in September 2024, the MHCLG publication of the Construction Products Reform Green Paper in February 2025 and the White Paper in February 2026. The Green Paper and White Paper set out system-wide reform of the construction products regime, testing assurance and capacity of Conformity Assessment Bodies, interaction between the UK internal market and the EU, and the regulation of the market, among others. Therefore, several areas or issues outlined in the report have since been superseded or addressed by policy development in the regulatory landscape. However, the report was accurate at the time of completion and has been used to understand the impact of regulatory changes. In January 2025, after the drafting of this report, the European Union begun its staggered implementation of the revised CPR. As such, mention of ‘EU-CPR 2011’ is in reference to the 305/2011 regime, with ‘EU-CPR 2024’ referring to the proposals that were in place at the time of drafting, which were then brought forward into Regulation (EU) 2024/3110.

This research was commissioned by OPSS to provide an evidence base for understanding the regulatory landscape for construction products, creating an accessible training resource for OPSS’s growing enforcement teams, as well as being used to inform OPSS’s delivery strategy.

Contents

List of acronyms and regulations

List of acronyms

AB	Approved Body
ADCO	Administrative Cooperation Group
ANEC	European Consumer Voice in Standardisation
AVCP	Assessment and Verification of Constancy of Performance
BBA	British Board of Agrément
BSI	British Standards Institution
BWR	Basic Work Requirement
CAB	Conformity Assessment Body
CCPI	Code for Construction Product Information
CEN	European Committee for Standardisation
CENELEC	European Committee for Electrotechnical Standardisation
CPA	Construction Products Association
CPD	Construction Products Directive
CPR	Construction Products Regulation
CTA	Ceramic Tile Adhesive
DBT	Department for Business and Trade
DLUHC	Department for Levelling-Up, Housing and Communities (now known as the Ministry of Housing, Communities and Local Government
DoC	Declaration of Conformity
DoP	Declaration of Performance

EAD	European Assessment Document
EBC	European Building Confederation
EC	European Commission
ECOS	Environmental Coalition on Standards European Environmental Citizens Organisation for Standardisation
EDD	Ecodesign Directive
ELD	European Labelling Directive
EOTA	European Organisation for Technical Assessment
EPD	Environmental Product Declaration
ER	Essential Requirement
ESO	European Standardisation Organisation
ESPR	Regulation on Ecodesign for Sustainable Products
ETA	European Technical Assessment
ETSI	European Telecommunications Standards Institute
ETUC	European Trade Union Confederation
EUROFER	European Steel Association
FIEC	European Construction Industry Federation
FPC	Factory Production Control
GNB	Group of Notified Bodies
hEN	Harmonised European Standard
IMCO	Committee on Internal Market and Consumer Protection (European Parliament)
NB	Notified Body

NPD	No Performance Declared
NSB	National Standardisation Body
OJEU	Official Journal of the European Union
OPSS	Office for Product Safety and Standards
QNIG	Qualifying Northern Ireland Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SBS	Small Business Standards
TAB	Technical Assessment Body
TC	Technical Committee
UKAS	UK Accreditation Services
UKTA	UK Technical Assessment
WG	Working Group

List of regulations

Commission **Delegated Regulation (EU) No 574/2014** of 21 February 2014 amending Annex III to Regulation (EU) No 305/2011 of the European Parliament and of the Council on **the model to be used for drawing up a declaration of performance on construction products**

Commission **Delegated Regulation (EU) No 568/2014** of 18 February 2014 amending Annex V to Regulation (EU) No 305/2011 of the European Parliament and of the Council as regards **the assessment and verification of constancy of performance of construction products**

Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a **common framework for the marketing of products**, and repealing Council Decision 93/465/EEC

Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to **construction products – The Construction Products Directive**

Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of **ecodesign requirements for energy-related products** (recast) – **The Ecodesign Directive (EDD)**

Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for a**ccreditation and market surveillance relating to the marketing of products** and repealing Regulation (EEC) No 339/93

Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the **marketing of construction products** and repealing Council Directive 89/106/EEC Text with EEA relevance – **The Construction Products Regulation 2011 (EU-CPR 2011)**

Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on **European standardisation**, amending Council Directives 89/686/EEC and 93/15/EEC and Directives 94/9/EC, 94/25/EC, 95/16/EC, 97/23/EC, 98/34/EC, 2004/22/EC, 2007/23/EC, 2009/23/EC and 2009/105/EC of the European Parliament and of the Council and repealing Council Decision 87/95/EEC and Decision No 1673/2006/EC of the European Parliament and of the Council Text with EEA relevance

Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on **market surveillance and compliance of products** and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011

Executive Summary

Project aims and outcomes

The Office for Product Safety and Standards (OPSS) is the national regulator for consumer products, for legal metrology and for construction products.

As part of the Office's regulatory powers as the construction products regulator, OPSS is seeking to expand its evidence base relating to the Regulation (EU) No 305/2011, the Construction Products Regulation (EU-CPR 2011).

OPSS has therefore commissioned this research report with the following specific aims; to understand:

- the historical context of the current regulatory regime in the EU, including the effectiveness of current regulations in terms of enforcement and industry perspectives.
- the EU's proposals for the current Construction Products Regulation (EU) No 305/2011 (EU-CPR 2011) regime.
- the industry perspective by undertaking a minimum of 3 product/sector specific case studies.

The overarching aim of this research is to support OPSS in its role as the national regulator for construction products, helping ensure that the right evidence is available to support effective interventions and robust regulatory decision making.

Methodology

The primary research method is a structured and systematic Rapid Evidence Assessment (REA), consisting of a qualitative review of regulatory documents and wider academic, government and grey literature, supplemented by semi-structured qualitative interviews with relevant stakeholders.

Qualitative review of documents

A search strategy was developed, which consisted of three broad stages: a systematic search of the website of the European Commission; a structured search of the Official Journal of the European Union (OJEU), and a series of structured searches – carried out in Google and Google Scholar – to uncover wider academic, government and grey literature about the construction products regulatory regime.

All sources were collated into a bespoke spreadsheet and moderated to identify only those most relevant to the project aims. Content analysis was then carried out on the moderated sources to identify and extract key themes and concepts within the reviewed literature.

Qualitative stakeholder interviews

A total of 42 interviews were conducted with a range of stakeholders, both in the UK and the EU.

The purpose of these interviews was to explore the views and perspectives of a range of organisations spanning the whole regulatory ecosystem. This includes stakeholders representing standards setting bodies, testing and certification bodies; national regulatory authorities responsible for market surveillance and enforcement; building control

authorities; industry and trade associations; manufacturers; professional users of construction products (e.g. built environment professionals, architects, building contractors).

Case studies

The report also includes a series of product-specific case studies, which are used to explore manufacturers' perspectives of the construction products regulations.

Four construction products have been chosen for development into case studies: **space heating appliances**; **fixings**; **construction adhesives**; **thermal insulation**. These products were selected based on background research and chosen because they offered insights into specific regulatory challenges (such as the implications of 'regulatory overlaps', testing challenges, or the consequences of a dynamic product market which is outpacing statutory regulation). Further information on the rationale for the choice of case studies is included in section 1.2.3.

Main research findings

The current regulatory regime

Construction products in the EU are regulated by Regulation (EU) No 305/2011 of the European Parliament and of the Council (the 'Construction Products Regulation' or EU-CPR 2011). The EU-CPR 2011 came into force in 2013, replacing the earlier Construction Products Directive, which had been in force since 1989. Following the United Kingdom's withdrawal from the European Union, this is assimilated (now retained) UK law.

The CPR does not define specific requirements for construction products. Instead, the CPR relies largely on a system of harmonised technical specifications, specifically:

- Harmonised European standards (hENs) and;
- European Assessment Documents (EADs).

These harmonised technical specifications provide "*a common technical language*" that enables manufacturers and construction products end users to assess the performance of construction products.

Impact on regulatory authorities

System of standardisation: The EU-CPR 2011 relies heavily on the system of European harmonised standards. Unlike other European regulations which form part of the "New Legislative Framework", the use of harmonised standards under the EU-CPR 2011 is mandatory for any product covered by such a standard. The reliance of the CPR on harmonised standards effectively limits the EU-CPR 2011's statutory coverage to products for which a harmonised European standard exists (or for which a European Technical Assessment (ETA) has been carried out). This essentially excludes from statutory coverage all construction products available on the market which are not covered by a harmonised standard.

Evidence presented in this report suggests that the **standardisation process** on which the EU-CPR 2011 depends **is under-performing**. The biggest issues relate to delays in the publication of new standards (and updated versions of old standards), leading to a considerable backlog of standards which have yet to be harmonised and cited in the Official Journal of the European Union (OJEU). These delays in the publication of new standards have become exacerbated under the EU-CPR 2011, as the European

Commission is legally obliged to review every new or updated draft standard before it can be cited in the OJEU. Furthermore, the impact of certain legal cases, most notably James Elliott Construction vs. Irish Asphalt Ltd. (Case C-613/14), has served to strengthen the procedures by which the European Commission assesses draft standards prior to citation. The impact of these delays is that the EU-CPR 2011 is dependent on standards that have been superseded, many of which date from the CPD. This has serious implications for regulatory authorities, as dependence on old standards may imply that **statutory regulation is not keeping pace with technological or market developments in the construction products sector**.

Market surveillance and enforcement challenges: Evidence from the literature review suggests that market surveillance and enforcement of the EU-CPR 2011 is not considered effective. While weaknesses in market surveillance are partly attributable to the EU-CPR 2011 itself, as the EU-CPR 2011 does not set minimum requirements around the resources to be made available for market surveillance, it is important to remember that the articles within the CPR pertaining to market surveillance draw on the articles contained in the "New Legislative Framework", in particular Regulation (EC) No 765/2008, which established the main administrative framework for market surveillance in EU Member States. **Weaknesses in market surveillance may therefore be the consequence of the EU's horizontal legal framework for the marketing of products – its "New Legislative Framework" – rather than a consequence of structural issues within the EU-CPR 2011 itself**.

There are certain mechanisms within the EU-CPR 2011 which create challenges for regulators and limit effective enforcement. In particular, **the provision whereby in some instances manufacturers may self-declare performance characteristics on the Declaration of Performance** (DoP) is a feature which limits the effectiveness of market surveillance and enforcement at national level. Another challenge associated with the EU-CPR 2011 is that, at most levels of the Assessment and Verification of Constancy of Performance (AVCP), there are limited requirements around the retesting of products once they have entered the market.

Regulatory coherence and overlaps with other regulations: The most notable overlaps between the EU-CPR 2011 and other EU regulations are with the Ecodesign Directive (EDD). Although certain types of construction products, which fall under the 'space heating appliances' category of the EU-CPR 2011, are covered by both a harmonised standard and an implementing regulation under the Ecodesign Directive (EDD), so far, there is no evidence of any serious issues as a result of this regulatory overlap. The main reason for this appears to be that the environmental and sustainability aspects under the EU-CPR 2011, as set out in Basic Requirements for Construction Works (BWR) 3 and 7, have not yet been fully integrated into any harmonised standard. This has essentially eliminated any risk of conflicting testing requirements between harmonised standards under the EU-CPR 2011, and the implementing regulations under the EDD.

Furthermore, the fact that manufacturers of products covered by both regulations can get their products tested against the requirements of both regulations simultaneously means that **the regulatory overlap has not resulted in the burden of double testing**. The only administrative inconvenience for manufacturers, which has resulted from this overlap, has been the need to submit two separate documents for each regulation (a Declaration of Performance for the CPR, and a Declaration of Conformity for the EDD).

Unintended consequences: The fact that many of the EU-CPR 2011's harmonised standards are based on technical knowledge which is now over a decade old, rather than on the most up-to-date technological developments, means that in many cases harmonised standards do not provide an effective basis for assessing the environmental and sustainability impacts of construction products. As such, the EU-CPR 2011 has struggled to deliver on wider environmental and sustainability objectives. Furthermore, the lack of up-to-date harmonised standards has led some EU Member States to question the suitability of harmonised standards in fulfilling their regulatory needs. This, in turn, has prompted some Member States to impose additional optional requirements on products covered by a harmonised standard, and in some cases even encouraged the use of national marks.

Impact on manufacturers

Legal clarity on the role and obligations of manufacturers under the EU-CPR 2011: Evidence from the literature review and from stakeholders consulted through interviews for this research suggests that the EU-CPR 2011 has helped to enhance the legal clarity around the obligations of manufacturers. Although many manufacturers found the transition from the CPD to the EU-CPR 2011 challenging – especially in adapting to the mandatory requirement to issue a Declaration of Performance (DoP) for products covered by a harmonised standard – evidence suggests that manufacturers now have a good understanding of what is expected of them under the EU-CPR 2011, and that they generally consider compliance with the CPR to be straightforward.

Impact of the standards backlog on manufacturers: The reliance of the EU-CPR 2011 on old, CPD-era standards, however, creates confusion for manufacturers of construction products, especially in instances where more up-to-date standards have been developed but have not yet been cited in the OJEU. Where harmonised standards have been withdrawn or replaced by an updated standard, manufacturers express confusion around knowing which standard they should be testing products against. Many feel they should be testing against the most up to date standard, but the legal requirement is that they assess against the harmonised standard, even if that standard has now been superseded by a more up to date one.

Administrative and financial costs associated with compliance: Although empirical evidence relating to the administrative and financial burden of compliance with the EU-CPR 2011 is limited, the available evidence suggests that the administrative and financial costs of compliance are greatest, in relative terms, for smaller manufacturers. Evidence also shows that smaller companies experienced the starkest increase in costs in the transition from the CPD to the EU-CPR 2011. This suggests that the introduction of the DoP and mandatory CE marking was arguably a greater step change for smaller manufacturers, leading to greater cost increases, compared to larger ones.

Industry uptake of simplification measures: Evidence from stakeholders and the literature review suggests that the uptake of derogations and simplification procedures by companies has been very limited. Low awareness of the simplified procedures, along with a lack of clarity around key terms associated with these procedures, are identified as the main reasons why manufacturers are not making use of simplification measures.

Impact on construction product users[1]

Information supply: Evidence relating to the impact of the EU-CPR 2011 on the supply of information about construction products is mixed. While some evidence sources suggest that product information for end users has increased as a result of the EU-CPR 2011, other evidence is more nuanced. As a result, it is difficult to say conclusively, based on available evidence, whether the EU-CPR 2011 has improved the supply of information about construction products.

Awareness and understanding of the CPR: Evidence from stakeholders, consulted for this research, suggests that the level of understanding of the EU-CPR 2011 is quite low amongst professional users of construction products. While most professional product users are typically aware of the EU-CPR 2011, it would appear that the EU-CPR 2011 itself has limited practical relevance to the daily work of most users. There is also very limited or no familiarity with the AVCP system amongst professional users. One of the reasons for this low level of understanding of the EU-CPR 2011 is that there exists an assumption that construction products bearing the CE mark are compliant and so there is no need to check their compliance against the EU-CPR 2011. There is an expectation, certainly amongst building contractors, that the compliance of products has been dealt with further up the supply chain. While this may be an entirely fair assumption, the result of this is that there often exists a disconnect between product users and the EU-CPR 2011.

Awareness and understanding of the Declaration of Performance: While awareness of the CPR itself is low, levels of understanding and usage of the DoP seem to vary between different types of users. Evidence suggests that building specifiers (especially architects and architectural technologists) generally have a good understanding of the DoP and make regular use of technical literature provided by the manufacturer, which includes the DoP. Building contractors and those in the engineering sector, however, have less familiarity with the DoP.

Awareness and understanding of CE marking: Evidence presented in this report shows that there remains confusion amongst industry stakeholders around the meaning of CE marking. Evidence from both the literature review and stakeholder interviews suggests that there is a continuing tendency amongst professional construction product users to misunderstand the CE mark and confuse it with a quality or safety mark.

Impact on testing laboratories

Legal clarity on the role of Notified Bodies under the EU-CPR 2011: Evidence from the literature review shows that while the CPR has helped to enhance the legal clarity on the role of Notified Bodies in carrying out their functions, there remain areas where the EU-CPR 2011 continues to lack clarity in relation to the role of Notified Bodies. It is noted that imprecise wording used in some articles of the EU-CPR 2011 has contributed to variations in the practices of Notified Bodies between Member States. For instance, it is reported that vague wording used in article 52(2) (relating to the operational obligations for Notified Bodies) has led to variations in the quality of audits undertaken on Notified Bodies.

[1] For the purpose of this research, construction product users are defined as **professionals in the built environment sector who make use of construction products either in building design and specification** or **in the construction of buildings**. For a complete definition, see section 5 Impact on construction product users

Restrictions around subcontracting of testing tasks: One of the greatest challenges for Notified Bodies under the EU-CPR 2011 are restrictions imposed by the EU-CPR 2011 on the subcontracting of testing tasks as part of the AVCP process. Under the CPR, subcontracting by Notified Bodies is limited to tasks for which the Notified Body itself is accredited. The consequence of this is that Notified Bodies cannot subcontract testing tasks which they are not themselves accredited to perform.[2] While restrictions of this nature were designed for quality assurance purposes, to prevent Notified Bodies from outsourcing testing tasks which they could not undertake themselves, these restrictions limit the ability of Notified Bodies to build testing capacity, meaning that the market for testing certain products tends to be concentrated.

Access to European knowledge networks and guidance documents: Another major challenge currently facing testing and certification bodies in the UK – identified by both stakeholders and in the literature review – is the fact that Approved Bodies and Technical Assessment Bodies in Great Britain no longer have access to important collaborative networks of European Notified Bodies (the Group of Notified Bodies). This introduces a risk that GB Approved Bodies may become excluded from the most recent European knowledge, learnings and guidance documents which play an important role in ensuring best practice around testing and certification of products.

Changes to the European regulatory regime

On 30th March 2022, the European Commission published a Proposal (the '**Proposal**') which set out a series of key changes to be made to the EU-CPR 2011. After prolonged negotiations, an updated version of the Proposal (the '**Compromise Text**') was issued in February 2024. This Compromise Text was approved by EU Member States and was adopted by the European Parliament on 10th April 2024. The Compromise Text was formally adopted and published as Regulation (EU) 2024/3011 (EU-CPR 2024) in December 2024.

The main differences between EU-CPR 2011 and EU-CPR 2024, are:

New environmental obligations for manufacturers: The EU-CPR 2024 contains an article which sets out a mandatory requirement for manufacturers to assess the environmental and sustainability performance of their products over the product's lifecycle.

Introduction of mandatory product requirements: The EU-CPR 2024 revision sets certain **environmental, functional, and safety requirements for construction products**. This stands in contrast to the EU-CPR 2011, which does not define any specific product requirements, but instead limits itself only to defining the Basic Requirements for Construction Works (BWRs). A full list of these new requirements, as per the Compromise Text, is included in Appendix 2 of this Report.

Introduction of a Declaration of Performance and Conformity: The EU-CPR 2024 introduces a new document for manufacturers to complete, a Declaration of Performance and Conformity, which will replace the Declaration of Performance. The purpose of this document is to enable manufacturers to demonstrate conformity against mandatory environmental, functional and safety requirements at the same time as declaring the performance of their product, in one single document.

[2] A fuller description of what is meant by subcontracting in the testing space is included in section 6.2: Restrictions around subcontracting of testing tasks

Introduction of a Construction Digital Product Passport: The EU-CPR 2024 introduces a new Digital Product Passport, which will enable all information and documentation that comes with the EU-CPR 2024 to be processed digitally. The Digital Product Passport represents an attempt to make maximum use of digitalisation in the supply of information about construction products and encourage greater uptake of digitalisation by manufacturers of construction products.

New powers for the Commission to adopt technical specifications to reduce the backlog of harmonised standards and accelerate the publication of harmonised technical specifications: The EU-CPR 2024 contains provisions for the Commission to use implementing acts to adopt harmonised specifications in instances where the standardisation system is not delivering on time or of sufficient quality. These provisions represent an attempt to resolve the challenges of slow standardisation and speed up the publication of new standards. However, these new powers have conditions which limit the Commission's intervention to cases where standardisation requests have either been rejected, or not properly implemented, or not delivered three years after the request was accepted by the standardisation organisation.

Establishment of a 'harmonised zone' to clarify the roles of the EU and EU Member States: The EU-CPR 2024 introduces the concept of a 'harmonised zone', emphasising the area of law absolutely regulated by the European Union in contrast to areas regulated by EU Member State law. The 'harmonised zone' represents a response to the persistence of national marks by EU Member States. Member States are called upon to "*respect the harmonised zone in their national laws"* and *"not prohibit or impede the making available of products covered by it when they are in compliance with this Regulation"*

Strengthen enforcement and market surveillance: The EU-CPR 2024 also contains articles with which it aims to strengthen market surveillance and enforcement. These include the sharing of common practices and methodologies for effective market surveillance by the European Commission, and the establishment of an Administrative Cooperation Group (ADCO) that shall meet at regular intervals to support the implementation of the new CPR by identifying market surveillance priorities.

A broader definition and scope of construction products: The EU-CPR 2024 includes a broader definition of construction products which includes 3D printed products.

1. Introduction

1.1. Project aims and outcomes

The Office for Product Safety and Standards (OPSS) is the national regulator for consumer products (except for vehicles, medicine and food) and for legal metrology. In January 2021, in response to a recommendation in the Hackitt report to "*create a more effective market surveillance regime*" for construction products, OPSS was appointed the national regulator for construction products, and reports to the Secretary of State for the Ministry of Housing, Communities and Local Government (MHCLG).

OPSS is seeking to expand its evidence base relating to construction products regulation. An important part of this is gathering up-to-date intelligence about the European regulations for construction products, including an overview of revisions by the EU to the regulatory framework, and its interaction with the UK regime.

In order to fully understand the frameworks regulating construction products on sale in the UK market, it is essential that OPSS possesses accurate, up-to-date information on the recent, current and proposed revised EU regulations for construction products. This includes information about the effectiveness[3] of current regulations and how these regulations may impact on the UK market and industry.

The UK construction products market and industry – a definition

The 'UK market and industry' in this context refers to both the production of construction products as well as their immediate use within building design, specification and construction.[4]

The term 'market and industry' therefore encompasses **manufacturers of construction products** but also professional **construction product 'users'** active in the design, specification and construction of buildings. This includes architects, building specifiers, surveyors and building contractors.

However, this definition of 'market and industry' for construction products precludes users beyond the immediate construction process, or those who interact with construction products only once they have been incorporated into the built environment. This means that those involved in building refurbishment, facilities management and building demolition, as well as building users, are not included in the scope of this project.

[3] 'Effectiveness' is here understood in terms of impacts on national regulatory authorities, industry and testing infrastructure. It includes how effective the regulations are in terms of facilitating market surveillance and enforcement of the construction products market. It also includes how effective the regulations are in establishing a clear framework which can be understood by all stakeholders in the regulatory ecosystem, including regulatory authorities, manufacturers, product users and testing organisations.

[4] The original scope of this report had been to focus on industry impacts in terms of impacts on manufacturers of construction products. However, following feedback on the Interim Report, this scope was then extended to include users of construction products.

This work will support the development of OPSS's market surveillance and enforcement of construction products, helping ensure that the right evidence is available to support effective interventions and robust regulatory decision making.

OPSS is therefore commissioning this report with the following specific aims; to understand:

- the past and present with regards to the construction products regulation in the EU, Regulation (EU) 2024/3110 (EU-CPR 2011), including the effectiveness of regulations in terms of enforcement and industry perspectives.
- the EU's new construction product regulations, Regulation (EU) 2024/3110 (EU-CPR 2024), on the regulatory regime.
- the industry perspective by undertaking a minimum of 3 product/sector specific case studies.

These three aims have the following associated questions (as specified by OPSS):

Aim 1:

- What are the key decision points during the evolutionary timeline of the construction products regulations?
- Why were these key decisions made?
- Have there been any unintended consequences because of any of the regulatory changes?
- Have there been any cases where impacts have been felt because of specific legal or industry actions, challenges, or clarifications with regards to the construction products regulations, and what are these impacts?
- Are there any lessons to be learnt about enforcement of the EU-CPR 2011?

Aim 2:

- What are the key changes from the EU with regards to the construction product regulations and EU-CPR 2024?

Aim 3:

- Develop a minimum of 3 case studies (max 5) of any products or sector that can be used to track the changes in the regulatory landscape and highlight any unintended consequences, industry impact, building impact

The intended outcomes of the project are as follows:

- Clear understanding with regards to the EU construction products regulations.
- Clear understanding and explanation with a timeline of the changes that have been made to the existing regulations since their inception as the construction products directive and why they have evolved.
- A review of the challenges posed by the regulations to both the regulator and to industry.
- Synthesis of evidence relating to the impacts of changes within the regulatory landscape
- Clear understanding of any further proposed changes to existing regulations.

1.2. Methodology

The primary research method is a structured and systematic Rapid Evidence Assessment (REA), consisting of a qualitative review of regulatory documents and wider academic, government and grey literature, supplemented by semi-structured qualitative interviews with relevant stakeholders.

An REA is a type of literature review that aims to provide a succinct summary and synthesis of a defined body of evidence, in a way that supports evidence-based policy decisions.

The REA was the preferred methodology specified by OPSS in the Invitation to Tender (ITT). The main advantage of an REA is that it allows for a structured and rigorous search to be conducted within the short project timeframe. It ensures that evidence is identified quickly and provides a summary of the evidence which can be used to support informed, evidence-based decisions about policy.

The main limitation of an REA is that it is not as extensive as a systematic literature review. It is purposefully restricted to searching a limited range of key resources and databases, and its scope is limited to certain types of source material. REAs also place less emphasis on assessing the overall quality of the source material.

1.2.1. Qualitative review of documents

Our approach to the review of documents is as follows:

- Collate and review documents relating to the regulatory landscape for construction products in the EU – specifically documents relating to EU Regulation No 305/2011 Construction Products Regulation (EU-CPR 2011), as well as the European Commission's changes to the CPR (EU-CPR 2024).
- Collate and review documents relating to the recent regulatory landscape – specifically documents relating to the Construction Products Directive (CPD) of 1989.
- Collate and review reports, reviews and evaluations carried out on the CPD and the EU-CPR 2011.
- Collate and review any other government, academic and grey literature relevant to the topic of construction products regulations.

A search strategy was developed, which consisted of three broad stages:

1. A systematic search of the website of the European Commission, to identify all relevant regulatory/legislative documents, reports, reviews, evaluations and other relevant content (such as information webpages) about the present (and previous) regulatory regime for construction products.
2. A structured search of the Official Journal of the European Union, searchable via EUR-Lex, to identify all relevant official documents, not uncovered in the first stage of the search strategy, related to the CPD and the EU-CPR 2011. Search terms used were purposefully broad, to uncover the widest range of relevant documents.[5]
3. A series of structured Boolean searches – carried out in Google and Google Scholar – to uncover wider academic, government and grey literature about the construction products regulatory regime. The purpose of these searches was to uncover a

[5] The terms "construction products regulation" and "Construction products directive" were used.

broader range of sources exploring the wider implications of the EU construction products regulations, including impacts on industry and the likely impact of the proposed changes on UK industry.

All sources identified were collated into a bespoke spreadsheet which recorded key information about each document including title, date, author, publisher, source type.

A process of moderation was carried out on the complete body of source material identified through the search strategy. The abstracts of each source were reviewed against the project aims and sources deemed to be not relevant to the project were filtered out.

A qualitative review of the documents was then carried out. The qualitative review was specifically requested by OPSS, based on the methodology used by Wall in their academic article (Wall, 2021). The qualitative review consisted primarily of content analysis, an analytical approach used to "*determine the presence of certain words, themes, or concepts*" within the sources under review. (Columbia University, 2024) Themes were identified by assessing the content of the literature against the specified project aims and research questions. Themes or concepts which related to the research questions were extracted and synthesised as part of the report.

1.2.2. Qualitative stakeholder interviews

A total of 42 interviews were conducted with stakeholders based in the UK and in various EU Member States. The purpose of these interviews was to explore the views and perspectives of a range of organisations spanning the whole regulatory ecosystem. While a range of views from across the regulatory ecosystem have been obtained, the relatively small sample size means that stakeholder statements cannot be taken as views of the whole sector.

A purposive approach was taken to sample selection, to ensure a spread of different types of stakeholders were consulted. A breakdown of all interviews completed, by organisation type, is included below:

Organisation type	Number of interviews completed
Manufacturers	11
Trade and industry bodies	10
Organisations representing professional users of construction products	9
Testing and certification bodies	5
National regulatory authorities responsible for market surveillance and enforcement	4
Building Control Authorities	2

Standards setting bodies	1

The interviews used semi-structured topic guides to explore stakeholders' views on the impact and effectiveness of the current regulatory framework for construction products. Different topic guides were developed for different stakeholder groups, depending on their relationship with the construction products regulations and their position in the regulatory ecosystem.

Thematic analysis was undertaken on the interview transcripts. Data from the interviews were manually coded and used to identify themes and concepts which emerged from the interviews. Themes were identified and defined by cross-referencing with the project aims and research questions, as well as by correlating with the themes and concepts emerging from the literature review.

1.2.3. Case Studies

The report also includes a series of product-specific case studies. The purpose of the case studies is to explore manufacturers' perspectives of the construction products regulations and to examine in more detail the implications of the regulations and their impact on industry, through the lens of specific product types.

Four construction products were chosen for development into case studies:

- Space heating appliances
- Fixings
- Construction adhesives
- Thermal insulation

The case studies were selected based on background research and early engagement with stakeholders.

Space heating appliances were selected primarily because these products would act as a useful lens through which to explore the implications of 'regulatory overlap', as many products which fall into this category are regulated by both the CPR, and the Ecodesign Directive (EDD). A focus on space heating appliances will therefore allow a detailed examination of what the practical consequences of this overlap are for both manufacturers and regulators.

Fixings were selected as these products are characterised by a high level of market innovation and dynamism. Fixings have witnessed the largest share of all European Assessment Documents (EADs) adopted between 2014 and 2020 (13% of all EADs) (Centre for Industrial Studies, 2020, p. 32), suggesting that the market for fixings is outpacing the harmonised standards available. Fixings therefore offer a product area where innovations and the fast pace of market developments are leading to regulatory gaps, as existing standards are not keeping pace.

Construction Adhesives were selected as they offer a potentially unique category of construction product which may present specific regulatory difficulties. The testing of adhesives is understood to be particularly challenging and time-consuming, with long drying and curing times increasing testing times in comparison to other products. These products may, therefore, present a challenge in the testing system in the event of large-scale regulatory change.

Thermal insulation was chosen as it is understood that the UK lacks testing capability around certain kinds of insulation products, (Morrell and Day, 2023, p. 84) which may lead to challenges as the EU's rules change.

1.3. About this report

This report presents a synthesis of the findings from the literature review and the qualitative stakeholder interviews. The report is structured thematically, with separate sections focusing in turn on the implications and challenges of the regulatory framework on the various actors which make up the regulatory ecosystem.

Sections 2-6 of the report address **Aim 1**, focusing on the EU regulatory regime (EU-CPR 2011).

Section 2 provides a short overview of the EU regulatory framework, as well as an outline of the process by which the performance of construction products is assessed before being placed on the market (the Assessment and Verification of Constancy of Performance – AVCP). This is followed by a timeline of the main changes to the construction products regulatory regime, dating back to the first major piece of European legislation which sought to regulate the market for construction products in the EU (the Construction Products Directive of 1989).

Section 3 explores the challenges and issues presented by the current regulatory regime for **national regulatory authorities**. This section focuses on the challenges associated with the system of harmonised standards, on which the EU-CPR 2011 is based, before examining aspects of the current regulations which create challenges for market surveillance and enforcement. This section also includes an overview of regulatory coherence, including the implications of overlaps between the EU-CPR 2011 and other regulations, before exploring some unintended consequences of the current regulations (including failure of the CPR to deliver wider sustainability objectives).

Sections 4 and 5 turn to challenges and issues presented by the current regulatory regime for **industry**. **Section 4** explores challenges for **manufacturers** of construction products, including the extent to which the EU-CPR 2011 confers clarity around the obligations of manufacturers, the administrative and financial costs of compliance with the CPR, and the extent of uptake of the CPR's simplification clauses by manufacturers. **Section 5** considers **construction product users**, examining issues around information supply and the extent to which users understand key concepts of the regulatory regime (including CE marking, the Declaration of Performance (DoP), and the AVCP process).

Section 6 focuses on the challenges faced by **testing laboratories** under the current regulatory regime. This includes the extent to which the EU-CPR 2011 sets out clearly the responsibilities of testing organisations, restrictions around subcontracting of testing tasks by testing laboratories, and access to European knowledge networks.

Section 7 focuses on **Aim 2**, examining what is currently known about EU Regulation 2024/3110 Construction Products Regulation (EU-CPR 2024). It provides a summary of the European Commission's main changes to construction product regulation in the EU, as set out in the most recent documents.

Section 8 addresses **Aim 3** and provides a series of four product-specific case studies, which are used to explore regulatory challenges through the lens of manufacturers of specific products.

2. The regulatory regime for construction products in Europe

2.1. The current regulatory regime

2.1.1. The Construction Products Regulation (EU-CPR 2011)

Construction products in the EU are regulated by **Regulation (EU) No 305/2011** of the European Parliament and of the Council (the '**Construction Products Regulation**' or **EU-CPR 2011**). Following the United Kingdom's withdrawal from the European Union, this is assimilated, now retained, UK law.

The overall objective of the EU-CPR 2011 is to facilitate the **single market for construction products** and to improve the free movement of construction products in the EU, by laying down **harmonised conditions for marketing construction products** (European Commission, 2022d).

Unlike other Regulations established under the EU's "New Legislative Framework", the **EU-CPR 2011 does not define requirements for construction products**. Instead, the primary mechanisms employed by the EU-CPR 2011 to achieve its objectives are harmonised technical specifications. There are two types of such specifications:

- **Harmonised European standards** (hENs) and;
- **European Assessment Documents** (EADs).

These harmonised technical specifications provide "*a common technical language*" which enables manufacturers and construction products end users to assess the performance of construction products. They also ensure the supply of reliable information for professionals, public authorities and consumers and enable comparisons of the performance of products from different manufacturers in different countries (VVA Economics & Policy. et al., 2018a, p. 7).

Harmonised standards are developed by European Standardisation Organisations (ESOs)[6] based on mandates[7] issued by the European Commission. Harmonised standards set out the methods and criteria for assessing the performance of construction products (European Commission, 2022d).

If a construction product is not covered, or not fully covered, by a harmonised standard, manufacturers may request a **European Technical Assessment** (ETA), issued by one of the technical assessment bodies (TABs), based on a **European Assessment Document** (EAD) developed by the **European Organisation for Technical Assessment** (EOTA).

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6 These are: European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC).

7 "Mandates" refer to formal requests, submitted by the European Commission to the ESOs, to develop a European standard. The selection of products by the Commission, to be covered by a harmonised standard through a mandate, appears to be determined by the strategic priorities identified in the Commission's Annual Union Work Programme on European Standardisation (AUWP). The AUWP is informed and advised by a High-Level, multi-stakeholder Forum on European standardisation: https://single-market-economy.ec.europa.eu/news/commission-publishes-its-annual-union-work-programme-european-standardisation-2024-2024-02-02_en

The ETA is a documented assessment of the performance of a construction product in relation to its essential characteristics (European Commission, 2022d).

Where a construction product is covered by an existing harmonised standard, the use of that standard is mandatory.

Manufacturers wishing to place a construction product on the EU market (which is covered by a harmonised standard, or for which an ETA has been issued), must draw up a **Declaration of Performance** (DoP). The DoP provides detailed information about the product's performance in relation to the essential characteristics defined within the applicable harmonised standard, or EAD.

All construction products covered by a harmonised standard, or for which an ETA has been issued, must also bear the **CE mark**. The CE mark indicates that the product has been either assessed according to a harmonised standard,[8] or that a European Technical Assessment (ETA) has been issued, and that the product's performance conforms to the values declared in the DoP. Products bearing the CE mark can then freely circulate within the single market (VVA Economics & Policy. et al., 2018a, p. 10).

Under the EU-CPR 2011, EU Member States are not allowed to require any additional marks, certificates or testing. EU Member States are, however, responsible for the safety, environmental and energy requirements of buildings and civil engineering works, which includes the setting of national building regulations. (European Commission, 2022b, p. 1) There exists, therefore, a complex interplay between building regulations, which are set nationally, and the EU-CPR 2011, which is published by the European Commission and is legally binding in all Member States. While Member States can enact legislation around building safety, which includes the setting of requirements on the use of construction products in buildings and other construction works, they cannot directly amend construction product regulations.

2.1.2. Assessment and Verification of Constancy of Performance (AVCP)

The "Assessment and Verification of Constancy of Performance" (AVCP) is a harmonised system which defines how construction products must be assessed and how the constancy of assessment results can be controlled. This system underpins the accuracy of the DoP, and sets out the testing and certification processes which construction products must undergo so that a DoP can be issued (European Commission, n.d.b).

There exists a network of Conformity Assessment Bodies (CABs) that are accredited and approved to carry out aspects of the AVCP process. In the EU, these are called Notified Bodies (NBs) and, in the UK, they are called Approved Bodies (ABs).

There are five routes which a manufacturer may follow for the AVCP process, depending on the product type, each involving different levels of involvement of CABS (European Commission, n.d.b). This is represented in the infographic below.

[8] Some harmonised standards under the CPR set out minimum performance criteria. In these instances, the CE mark would indicate that product conforms to a minimum level of performance, in some of the essential criteria, as defined in the harmonised standard.

AVCP system level	Factory Production Control	Sampling	Testing assessment	Production – intital inspection	Production – surveillance	Production – sampling
1+						
1						
2+						
3						
4						

Source: Morrell and Day, 2023, p. 50

At **level 4** (the lightest touch of the five AVCP systems), **all stages of the AVCP are self-performed by the manufacturer**. This includes Factory Production Control (FPC) as well as an assessment of the performance of the product. These tasks are all carried out without involvement from third-party CABs.

The next level up from this (**level 3**) involves FPC by the manufacturer, while assessment of the performance of the construction product is carried out by a CAB.

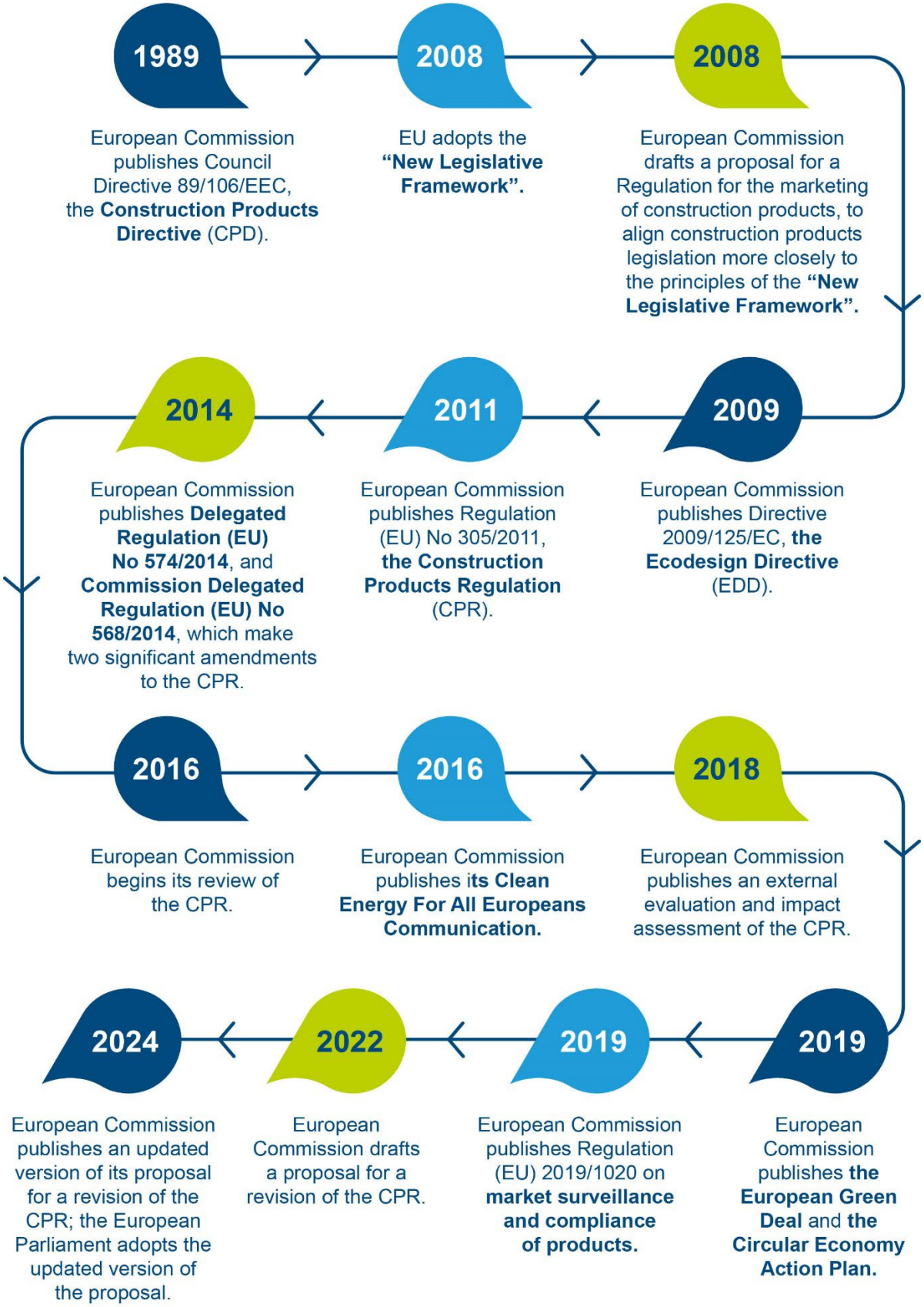
Levels 2+, 1 and 1+ of the AVCP all involve certification carried out by a CAB.

At system **level 2+**, the manufacturer's factory production control process must be certified by a CAB (through a process known as "FPC Certification"), with initial inspection of the manufacturing plant followed by continuing surveillance, assessment and evaluation. All other steps are self-performed by the manufacturer (as in system level 4).

The highest levels of the AVCP system (**levels 1 and 1+**) involve '**product certification**'. At these levels, manufacturers must use a CAB (or CABs) for testing and for certification of their product. The difference between levels 1 and 1+ is that, at level 1+, the CAB must also to be involved in periodic testing of the product while in production and on the market ("series production"). (Morrell and Day, 2023, pp. 49-50; Neerhof, 2019, pp. 78-9)

The AVCP process relates to the essential characteristics of products, rather than to products themselves. This means that the same product can be assessed at multiple levels of AVCP. For instance, most thermal insulation products are assessed at three different levels (levels 1, 3 and 4; one level for different essential characteristics). (Morrell and Day, 2023, p. 51)

2.2. Timeline of main changes to the construction products regulatory regime in the EU (1989-2024)



1989: Council Directive 89/106/EEC, the Construction Products Directive (CPD) 1988 entered into force.

This was the first piece of EU legislation which aimed to harmonise national technical standards for construction products. This landmark EU legislation laid the foundations for the construction products regulatory regime which exists today. (Wall, 2021, p. 2)

The CPD: An overview of the main features

The CPD was a "New Approach Directive". This means that the CPD did not set out detailed technical specifications for construction products. Instead, it established a series of **minimum essential requirements** (ERs) necessary for protecting health, safety and the environment. The CPD set out **six ERs** which relate to **how the product must behave when incorporated into the construction works** (Borthwick et al., 1999, pp. 234-5). These ERs are as follows:

1. Mechanical resistance and stability (ER 1);
2. Safety in the case of fire (ER 2);
3. Hygiene, health and the environment (ER 3);
4. Safety in use (ER 4);
5. Protection against noise (ER 5);
6. Energy economy and heat retention (ER 6).

Under the CPD, specifications for construction products were set out in harmonised technical specifications. The CPD mentions two main types of technical specifications: **harmonised European standards** (drawn up by one of the European Standardisation Organisations (ESO), based on mandates issued by the European Commission), or for 'innovative' products not covered by an existing harmonised standard, a **European Technical Approval (ETA).** (Wall, 2021, pp. 2-3)

The use of **harmonised technical specifications was voluntary** under the CPD. However, compliance with harmonised standards conferred on the product a presumption of conformity with the ERs set out in the Directive. (PRC B.V., 2007, p. 17)

The six ERs provided the technical basis for the preparation of harmonised standards by the ESOs. In 1994, the European Commission published a series of "interpretative documents" for each of the six ERs, which acted as guidelines for ESOs in the drawing up of standards based on ERs.

Manufacturers who chose to design their products in accordance with the specifications set out in a European harmonised standard or ETA had the option of drawing up a **Declaration of Conformity**. The Declaration of Conformity was an attestation which showed that a product conforms to either a harmonised standard or an ETA.

The CPD also introduced the system of **CE Marking** for construction products – the CE marking may be affixed to any construction product which conforms to either harmonised standard or to an ETA. (Wall, 2021, pp. 2-3)

In the absence of a harmonised standard or in the absence of an ETA document, the Directive allowed for national marks to be used. (Barylka, 2022, p. 11)

2008: The EU adopted the "New Legislative Framework", which aimed to "*improve the internal market for goods and strengthen the conditions for placing a wide range of products on the EU market*" (European Commission, n.d.).

The "New Legislative Framework" was enacted initially via two pieces of EU legislation:

- **Regulation (EC) 765/2008**, which set out the requirements around accreditation, market surveillance, conformity assessment and the CE marking.
- **Decision 768/2008**, which set out a common framework for the marketing of products. This Decision provided a template for all of the EU's future product harmonisation legislation.

One of the primary aims of the "New Legislative Framework" was to strengthen market surveillance and improve the quality of conformity assessments of products placed on the EU market. In relation to market surveillance, the "New Legislative Framework" introduced a package of measures which aimed to:

- Establish the requirements for EU countries around national market surveillance infrastructure and programmes, to prohibit or restrict the marketing of dangerous or non-compliant products.
- Provide EU Member States with the powers necessary to obtain all documentation from manufacturers to evaluate product conformity, to enter manufacturers' premises and take samples for testing, and even destroy products (if necessary).
- Set out obligations for EU countries to ensure cooperation at a national and international level. (RPA, 2015, p. 61).

Evaluation of market surveillance under the "New Legislative Framework"

In 2017, the European Commission published an Evaluation of Regulation (EC) 765/2008.

The evaluation concluded that, although Regulation (EC) 765/2008 had improved cooperation between market surveillance authorities, **its effectiveness in terms of promoting uniformity and rigorousness of market surveillance activities, across EU Member States, has been more limited**. This was largely attributed to differences in the way Member States implemented the Regulation, leading to significant differences in the "*organisation of market surveillance at the national level, the availability of resources (financial, human and technical), the strategies of market surveillance, the powers of inspection and of sanctions and the systems of monitoring and reporting*".

It was concluded that the "*general character of the Regulation's requirements is likely to have allowed these different implementations*". (European Commission, 2017b, p. 66)

This is explored in more detail in section 3.2 below.

2008: To align legislation on construction products more closely with the principles of the "New Legislative Framework", the EU drafted a **proposal for a Regulation for the marketing of construction products.** (European Commission, 2008a)

The Draft Proposal was accompanied by an **Impact Assessment** which identified four issues associated with the CPD and outlined three options for its revision (European Commission, 2008b):

Issues identified with the CPD related to:	Options for revision:
1. **Implementation mechanisms** of the CPD, including **slow advances in harmonisation** due to substantial delays in the standardisation work 2. **CE marking**, including **confusion as to the meaning of the CE marking** under the CPD 3. **Costs** associated with the Declaration of Conformity for **manufacturers of products manufactured individually or in non-series**, and for **micro enterprises** 4. **Market surveillance**	• Option 1: No change (the CPD to continue in force). • Option 2: No legislation – repeal of the CPD without any substitute and a reversion to mutual recognition. • Option 3: Revision of the Community legislation on construction products.

The preferred option in the Impact Assessment was **Option 3:** revision of the CPD. Option 3 was considered to offer the most effective means of addressing the identified issues associated with the CPD (as set out above), whilst at the same time ensuring "*the desired legal continuity*" by maintaining the CPD's approach to achieving the Internal Market objective through technical harmonisation. (European Commission, 2008b, p. 51) The selection of option 3 – CPD revision – resulted in the European Commission's decision to replace the CPD with the CPR.

2009: The European Commission published **Directive 2009/125/EC** – **the Ecodesign Directive** – which established a framework to set mandatory ecological requirements for energy-using and energy-related products.

2011: The European Commission published **Regulation (EU) No 305/2011 – the Construction Products Regulation (EU-CPR 2011)**. This Regulation, which entered fully into force in July 2013, repealed the earlier Construction Products Directive.

The EU-CPR 2011: An overview of the main changes

The EU-CPR 2011 placed more emphasis on assessing the **sustainability and environmental impacts of construction products across the product's whole life cycle**, compared to the CPD.

Under the CPR, the six Essential Requirements (ERs) from the CPD were retained as **Basic Requirements for Construction Works** (BWRs). However, the content of ER3 (now BWR – "Hygiene, health and the environment") was changed to focus more on the lifecycle environmental impacts of construction products and the associated construction works. Under the CPR, BWR3 refers to the impact of construction works on the "*hygiene*

or health and safety of workers, occupants or neighbours"[9] throughout the "*life cycle*" of such works, as well as to the impact on "*environmental quality or on the climate during their construction, use and demolition*". Furthermore, the CPR introduced a **new BWR7** ("**Sustainable use of natural resources**"), which stated that "*The construction works must be designed, built and demolished in such a way that the use of natural resources is sustainable and in particular ensure the following*:

a) *reuse or recyclability of the construction works, their materials and parts after demolition*;

b) *durability of the construction works*;

c) *use of environmentally compatible raw and secondary materials in the construction works*." (European Parliament and Council of the European Union, 2011, Annex 1)

As well as underlining the importance of the environmental performance of construction products, this emphasis on the impacts of construction products throughout their *whole lifecycle* also concretises an aspect which was perhaps only implicitly expressed in the CPD, which is that the scope of the regulations for construction products applies not just to the direct impacts of construction products on immediate users, but also to the potential broader impacts they might have on people and the environment (including after a construction product has been incorporated into a building or a system). While this is perhaps expressed most explicitly in the EU-CPR 2011 in the form of BWR3 (as it is here that references to the lifecycle of products are included), this broader scope, beyond the immediate users of construction products, is also by inference applicable to other BWRs, notably health and safety requirements.

The EU-CPR 2011 also introduced a new document which manufacturers were obliged to complete when bringing construction products to the market: The **Declaration of Performance** (DoP), which replaced the Declaration of Conformity (DoC) under the CPD.

The **DoP is mandatory under the CPR for all products covered by a harmonised standard or for which an ETA has been issued**. This, in effect, means that **compliance with harmonised standards** (or ETAs, where they have been issued) **is mandatory under the EU-CPR 2011**. Furthermore, unlike the DoC, which required manufacturers to declare only the harmonised specification to which their product conforms, the DoP requires manufacturers to provide detailed **information about their product's performance** in relation to specific essential characteristics as set out in the harmonised specification. Manufacturers must also provide information about the intended uses of their products as well as the AVCP level completed, and details of the Notified Bodies involved. (Wall, 2021, p. 5; Pacheco Torgal, 2011, p. 2)

The EU-CPR 2011 also introduced **derogations**, or exceptions to the need to draw up a DoP, for small manufacturers, or manufacturers of products which are "*individually manufactured or custom-made in a non-series process*". The derogations also apply to construction products "*manufactured on the construction site*" and those "*manufactured in a traditional manner or in a manner appropriate to heritage conservation and in a non-industrial process*". (European Parliament and Council of the European Union, 2011, art. 5)

[9] This language broadly reproduces that in ER3 in the CPD: "*The construction work must be designed and built in such a way that it will not be a threat to the hygiene or health of the occupants or neighbours*".

The EU-CPR 2011 also brought in new requirements around making available information about hazardous substances in construction products. While the CPD only considered a very limited range of dangerous substances, (e.g. formaldehyde and pentachlorophenol) the EU-CPR 2011 links this subject to the Regulation (EC) No 1907/2006 (Registration, Evaluation, Authorisation and Restriction of Chemicals - REACH Regulation). The introduction of the EU-CPR 2011 states that "*Where applicable, the declaration of performance should be accompanied by information on the content of hazardous substances in the construction product in order to improve the possibilities for sustainable construction and to facilitate the development of environment-friendly products*" (Pacheco Torgal, 2011, p. 3).

The fact that the legislative instrument chosen was a 'Regulation', rather than a 'Directive', is significant. It was hoped that many of the implementation challenges encountered under the CPD would be resolved by the fact that the EU-CPR 2011 is a Regulation. Under a Directive, Member States are required to transpose the Directive into national law. Regulations, on the other hand, are binding directly and in full in all EU Member States; they do not need to be transposed into the national legal order (Barylka, 2022, p. 10)

2014: Two significant amendments were made to the EU-CPR 2011, in the form of **Commission Delegated Regulation (EU) No 574/2014**, and **Commission Delegated Regulation (EU) No 568/2014**.

Commission Delegated Regulation **(EU) No 574/2014** amended Annex III of the EU-CPR 2011 – which set out the requirements around the DoP – by allowing manufacturers greater flexibility when drawing up a DoP. This amendment allowed manufacturers to omit certain performance levels for essential characteristics from the DoP which are not considered to be relevant to the product, (allowing manufacturers to insert "No Performance Declared", or "NPD"). The amendment also simplified the information required to be declared on the DoP about the Notified Body. These changes were in response to concerns raised by manufacturers about the complexity of filling in DoPs. (Harasymiuk, 2015, p. 19).

The changes brought in by this amendment (in particular, the provision whereby manufacturers can elect not to declare certain performance values for any essential characteristics) has created enforcement challenges for market surveillance authorities. These challenges are explored in more detail in section 3.2.

Commission Delegated Regulation **(EU) No 568/2014** was published to resolve an ambiguity in the EU-CPR 2011. The EU-CPR 2011 states that the manufacturer is responsible for identifying the product type for any product they intend to bring to the market. However, Annex V of the EU-CPR 2011 – which sets out the requirements of the Assessment and Verification of Constancy of Performance (AVCP) of construction products – originally stated the Notified Body should carry out the "*determination of the product type on the basis of type testing*". This initially created confusion around who was responsible for determining the product type. **Commission Delegated Regulation (EU) No 568/2014 attempted to resolve this contradiction by setting out more clearly the division of responsibilities between the manufacturer and the Notified Body in the AVCP process, by removing any reference to Notified Bodies being responsible for 'determination of the product type'**. According to the European Commission's 2016 Implementation Report, this amendment increased the legal certainty and clarified the degree of involvement and the role of Notified Bodies in assessing and verifying constancy

of performance of construction products. The report also claims that Notified Bodies now better understand their responsibilities (European Commission, 2016a, pp. 8-9).

2016: The European Commission began its review of the EU-CPR 2011. The Commission published an **Implementation Report** which assessed the effectiveness of the functioning of the EU-CPR 2011. This report highlighted numerous challenges in the implementation of the EU-CPR 2011, including slow progress in standardisation, ineffective market surveillance, and limited uptake of simplification measures designed to reduce the administrative burden and costs on SMEs when acquiring the CE mark. (European Commission, 2016a) **These issues – including reasons why the EU-CPR 2011 failed to resolve many of the issues which surfaced under the CPD – are explored in more detail in section 3.**

2016: The European Commission published **its Clean Energy For All Europeans Communication**. This publication served to place renewed attention on the EU-CPR 2011 and its role in delivering against the EU's objectives in stimulating the green economy. Clean Energy for All Europeans emphasised that the "*construction sector's growth and jobs potential needs to be unlocked by improving the functioning of markets*". It also suggested the need for a revision of the EU-CPR 2011 to improve the functioning of the market (European Commission, 2016b, p.9).

2018: The European Commission published an **external evaluation of the EU-CPR 2011**, which served to highlight the same issues brought to light in the European Commission's Implementation Report of 2016. The overarching issues identified in this evaluation were (i) an underperforming standardisation system at the core of the CPR, (ii) an ineffective and widely varying market surveillance and (iii) less simplification achieved by the CPR than expected (VVA Economics & Policy. et al., 2018a).

2018: Along with the evaluation of the EU-CPR 2011, the European Commission also published an **Impact Assessment** which examined and compared five policy options to address issues relating to the EU-CPR 2011. These were:

- Option A – Baseline (no revision). The baseline scenario implied no revision of the Regulation but improving implementation through guidance and other soft law measures.
- Option B – Repairing the EU-CPR 2011. This would be achieved by addressing the specific issues highlighted in the evaluation.
- Option C – Focusing the EU-CPR 2011. This option builds on the elements described in option B. However, in option C, the CPR's scope of application is limited to certain areas.
- Option D – Enhancing the EU-CPR 2011. Building on option B, requirements dealing with product inherent characteristics may also be introduced to protect public health, safety and the environment.
- Option E – Repealing the EU-CPR 2011.

Option D was found to be the preferred option because it was considered to address the shortcomings of the EU-CPR 2011 framework with the highest degree of effectiveness and coherence. It was believed that option D would ensure the free movement of construction products within the single market and fully respond to the ambitions stemming from the European Green Deal and Circular Economy Action Plan (VVA Economics & Policy. et al., 2018b).

2019: The European Commission published the **European Green Deal** (European Commission, 2019a) and the **Circular Economy Action Plan** (European Commission,

2019b). These documents underlined the role of the EU-CPR 2011 in efforts towards energy- and resource-efficient buildings, as well as in addressing circularity principles in the built environment sector. Both documents also mentioned the need for a review of the EU-CPR 2011 to ensure that the Regulation can better meet sustainability objectives.

2019: The European Commission published **Regulation (EU) 2019/1020 on market surveillance and compliance of products**. This regulation replaced **Regulation (EC) 765/2008** (the earlier, "New Legislative Framework" regulation on market surveillance) and set out new general requirements on the market surveillance of products in the EU single market**, while the accreditation provisions of 765/2008 continue to apply in the EU**. This regulation also made a small amendment to the wording of article 56(1), relating to market surveillance, in the EU-CPR 2011. **However, this amendment appears to have made no significant material change to the provisions of market surveillance as set out in the EU-CPR 2011**. The two versions of article 56(1) are set out in appendix 1.

2022: The European Commission published its proposal for a revision of the EU-CPR 2011 (European Commission, 2022b).

2024: The European Commission published an updated version of its proposal for a revision of the EU-CPR 2011 (known as the **Compromise Text**), following extended negotiations with stakeholders internal to the EU (Council of the EU, 2024b). The Compromise Text has now been approved by EU Member States and been adopted by the European Parliament in the plenary session which took place on 10th April 2024. (Doleschal and Matthieu, 2024, p. 1)

3. Effectiveness of regulatory regime

3.1. Challenges with the system of standardisation

Standardisation – and in particular harmonised standards – underpins the effective functioning of the EU-CPR 2011.

Unlike other EU regulations which form part of the "New Legislative Framework", the EU-CPR 2011 does not define specific requirements for construction products. Instead, it aims to define a common technical language and harmonise the conditions for the marketing of construction products using harmonised technical specifications. (VVA Economics & Policy. et al., 2018a, pp. 6-7). For this reason, **the use of harmonised standards under the EU-CPR 2011 is mandatory** (Neerhof, 2019, p. 77).

The mandatory nature of harmonised standards under the EU-CPR 2011 makes the EU-CPR 2011 an exception within the context of the European Regulation on Standardisation (Regulation (EU) No 1025/2012), which states that compliance with standards is voluntary.[10] This also means that harmonised standards occupy a position of central importance to the functioning of the CPR (VVA Economics & Policy. et al., 2018a, p.46).

The use of harmonised standards is intended to support the primary objective of the EU-CPR 2011; namely, the creation of harmonised conditions for the marketing construction products, to facilitate the free movement of construction products between EU Member States. However, the reliance of the EU-CPR 2011 on harmonised standards also underpins what is, in the author's opinion, arguably one of the Regulation's most fundamental weaknesses, which is that **EU-CPR 2011 coverage is limited only to products for which there exists a harmonised European standard** (or for which a European Technical Assessment (ETA) has been carried out). This essentially excludes all construction products available on the market which are not covered by a harmonised standard under the EU-CPR 2011, as well as products intended to be used in ways not contemplated in the harmonised standard (Morrell and Day, 2023, p. 80).

The number of construction products not covered by the EU-CPR 2011 could be very substantial. Estimates on the EU-CPR 2011's statutory coverage vary markedly. The European Commission's Implementation Report predicts that "*harmonised standards are estimated to cover around 75 to 80% of all construction products*" (European Commission, 2016a, p. 6). This estimate has also been confirmed in academic literature (Neerhof, 2019, p. 77). However, according to anecdotal sources in the Morrell and Day *Independent Review of the Construction Products Testing Regime*, only one third of all construction products marketed in the UK are covered by the EU-CPR 2011, leaving around 20-30,000 products unregulated. "*This clearly represents a significant gap in statutory coverage*". (Morrell and Day, 2023, pp. 19, 37).

Also, coverage can vary for similar products. For example, certain types of radiators are covered by harmonised standards, but others are not. For instance, wet-systems radiators, which are connected to a central heating system, are regulated by the EU-CPR 2011, as they are covered by a harmonised standard (EN 442-1: 2014). However, independent electric radiators – as well as more innovative space heating devices, such as radiant

[10] Clause 2 of Regulation (EU) No 1025/2012 of the European Parliament and of the Council states that standardisation "*is founded on the principles recognised by the World Trade Organisation (WTO) in the field of standardisation, namely coherence, transparency, openness, consensus, voluntary application, independence from special interests and efficiency*."

panels and trench heating systems – are not regulated by the EU-CPR 2011 as they are not covered by a harmonised standard. **This issue is explored in more detail in section 8.1, on space heating appliances.**

In the UK, the Building Safety Act 2022 provides powers for the Secretary of State to bring all construction products into the regulatory regime through the provision of a "general safety requirement" and to establish additional measures for "safety-critical products". The Building Safety Act therefore attempts to square the circle of construction product safety within the context of building safety, by establishing a provision which seeks to bring all products under the regulatory remit of the EU-CPR 2011.

Paragraph 2 of Schedule 11 of the Building Safety Act states that construction products regulations may:

- *Prohibit the marketing or supply of construction products which are not safe products*;
- *Impose other requirements for the purpose of securing that construction products which are not safe products are not marketed or supplied*;
- *Impose requirements in relation to the marketing or supply of construction products which are safe products*.

3.1.1. Publication of new and updated standards

Evidence from the literature review and from stakeholders suggests that the **standardisation process** on which the EU-CPR 2011 depends **was under-performing**. The biggest challenges relate to delays in the publication of new standards (and updated versions of old standards), leading to a considerable backlog of standards pending citation in the Official Journal of the European Union (OJEU). This undermined the effectiveness of the EU-CPR 2011 as it meant that statutory regulation of construction products is often based on standards that had been superseded, many of which dated from the CPD, rather than on the most up to date standards.

A slow system of standardisation was identified as one of most significant issues which hindered the effective implementation of the CPD (RPA, 2007, p. 18). According to the European Commission's 2008 Impact Assessment – which set out and evaluated options for the revision of the CPD – the publication of harmonised European standards based on mandates was advancing slowly due to substantial delays in the technical harmonisation work by carried out by the European Standardisation Organisations (European Commission, 2008b, p. 9) This meant that published harmonised standards were not responding in an effective way to the demands of industry and product development (Wall, 2022, p. 7).

One of the key expected impacts of the transition from the CPD to EU-CPR 2011 was a reduction in the time taken to prepare new harmonised European standards (European Commission, 2008b). However, **perceived delays in the preparation and publication of new standards have continued under the EU-CPR 2011**. According to European Commission's 2018 evaluation supporting study of the EU-CPR 2011, "*The lengthy standardisation process is one of the most significant problems affecting the implementation of the CPR, which severely impacts the effectiveness of the Regulation*." (VVA Economics & Policy. et al., 2018a, p. 109).

The process to develop a new harmonised standard – or revise an existing standard – for construction products is generally long (often taking several years). The main stages in the development of harmonised standards under the EU-CPR 2011 are set out below:

1) After consulting the Standing Committee on Construction, the European Commission issues “mandates” (otherwise known as “standardisation requests”) to the relevant European Standardisation Organisations (ESOs)[11], inviting them to draft a product standard in accordance with the Commission’s mandate. The ESO then has one month to accept the request.
2) Upon acceptance of the mandate, the ESO then assigns the project to the relevant Technical Committee (TC), which delegates the drafting of the standard to a Working Group (WG).[12] Once the TC Secretary and TC Chairperson have approved a final draft of the standard, the draft standard is then circulated to the ESO’s national members to be released for public comment and vote, in a process known as the 'Enquiry'. During the ‘Enquiry’ stage, everyone who has an interest in the draft standard may comment on the draft. This includes manufacturers, public authorities, and consumers. These views are then collated by the national members. If the results of the Enquiry show approval for the standard, the ESO can submit the standard to the Commission for citation in the Official Journal of the European Union (OJEU). If the results of the Enquiry show that the draft standard requires technical reworking, the WG will consider the comments and revise the draft. The revised draft is then sent to the national members for a formal vote.
3) After the draft standard has been agreed post Enquiry, the ESO then submits a draft of the standard to the European Commission. The Commission then assesses the conformity of the draft standard against the original mandate and the requirements of the EU-CPR 2011 more in general. If the Commission finds that the standard does not conform with the mandate, the standard is sent back for review by the ESO. If the draft standard is found to conform with the mandate, then it may be submitted for publication and citation in the OJEU. (VVA Economics & Policy. et al., 2018a, p. 46; CEN, 2024; ANEC, 2017.).

All stages in this process involve activities which are potentially time-consuming, specifically the third stage, pertaining to the European Commission’s role in assessing the draft standard before it can be harmonised and cited in the OJEU. The fact that harmonised standards are mandatory under the EU-CPR 2011 means the Commission must thoroughly assess every new standard before it can be cited in the OJEU. This is in line with article 17(5) of the CPR, which stipulates that “*The Commission shall assess the conformity of harmonised standards established by the European standardisation bodies with the relevant mandates*”. This review process by the European Commission adds to the time taken to achieve citation of harmonised standards, especially in instances where the Commission finds that the standard does not conform with the mandate and must be sent back to the ESO for revision. The process of assessing the conformity of draft standards against the original mandate, therefore, “*makes the standardisation process more time-consuming and introduces further delays when the conformity of a standard is not assessed positively by the Commission*.” (VVA Economics & Policy. et al., 2018a, p. 4).

Further stages in the process can add to the length of time it takes for a standard to be cited. For example, upon receiving a mandate from the European Commission, ESOs

[11] These are: European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC).

[12] The Working Group consists of “individual experts” who are appointed for the purpose of drafting the standard by CEN members or “*organizations having observer status in the parent body*” [The Technical Committee]. On completion of the task, the WG is then disbanded by the Technical Committee: https://boss.cen.eu/technicalstructures/pages/tcwg/

have the right to submit questions and propose revisions to the standardisation request. However, the timeframe for the European Commission to respond to these questions has not been clearly defined, and the process has been described by CEN-CENELEC as "*not sufficiently transparent*". (CEN-CENELEC, 2016, p. 9) According to CEN-CENELEC, the absence of clarity in this area *"has an adverse impact on the development of standards and a defined timeframe would help address issues in this respect. A maximum timeframe of 4 – 6 months for the acceptance of a revised mandate/standardization request is recommended.*" (CEN-CENELEC, 2016, p. 9)

Furthermore, some harmonised standards require the Commission to adopt a Delegated Act before it can enter into force. This is the case in instances where proposed harmonised standards include new thresholds or new classes of performance in relation to the essential characteristics of construction products. For instance, when EN 1304, on clay roofing tiles, was being revised, a new classification system for frost resistance performance for external use was included within the new version of the standard. The fact that a new system of classifications was being proposed meant that a Delegated Act (Commission Delegated Regulation (EU) 2017/1475) had to be issued, which set out the new classification system for frost resistance to be used for products covered by EN 1304.

According to the European Commission's 2019 evaluation of the EU-CPR 2011, 218 new or revised standards were submitted to the European Commission by CEN-CENELEC in between July 2013 and January 2019. Of these, 76 (35%) have been cited, while 142 (65%) have been rejected by the Commission primarily for reasons of non-conformity with the EU-CPR 2011.[13] (European Commission, 2019c, p. 29).

The lack of citation of new or updated standards means that the EU-CPR 2011 is largely reliant on standards which have been superseded and which were developed and published under the CPD. (European Commission, 2019c, pp. 29-30; Wall, 2022, pp. 7-8). Dependence on old standards means that **statutory regulation is not keeping pace with technological or market developments in the construction products sector**. This is acknowledged in the European Commission's 2019 evaluation of the CPR: "*Most of the existing 444 harmonised product standards were developed in the 1990s and early 2000s, and first came into use between 2002 and 2009. They were all based on mandates issued even earlier, so they could only partially bridge the gap between the market and regulatory needs of Member State authorities*." (European Commission, 2019c, p. 29).

The reliance of the EU-CPR 2011 on old, CPD-era standards also creates considerable **confusion for manufacturers of construction products**, especially in instances where more up-to-date standards have been developed by CEN but have not yet been assessed as compliant or cited in the OJEU. This is explored in more detail in section 4.2.

3.1.2. The Impact of the James Elliott case

The impact of certain legal cases, most notably James Elliott Construction, has served to strengthen the procedures by which the European Commission assesses the conformity of draft standards prior to citation. This, in turn, may have further contributed to delays in the time taken to develop and publish harmonised standards under the EU-CPR 2011. (European Commission, 2019c, pp. 29-30).

[13] Of the 76 standards that have been cited, 64 are revisions to existing standards and 12 are completely new standards.

James Elliott Construction – an Overview

In 2005, James Elliott Construction were engaged to construct a youth facility in Ireland. Upon completion of the building works, cracks began to appear in the building structure and James Elliott Construction undertook remedial work at a cost exceeding €1,550,000.

On 13 June 2008, James Elliott Construction sued Irish Asphalt, the company that had supplied the aggregates, claiming that the products supplied did not conform to the specifications of the Irish standard for aggregates (I.S. EN 13242:2002, which transposed the European Harmonised Standard EN 13242:200229). The case was taken to the Irish High Court. Tests were conducted on the aggregate used in the building, which showed that the product did not meet Irish standard I.S. EN 13242.

On 2 December 2014, the Irish Supreme Court issued a judgment on the issues of domestic law. However, the Supreme Court refrained from ruling on aspects relating to the application of EU law given the uncertainty about the legal nature of European harmonised standards. The Irish Supreme Court therefore appealed to the European Court of Justice on the issue of jurisdiction to deliver a preliminary ruling interpreting a harmonised standard. (Van Waeyenberge and Restrepo, 2017, p. 886: Volpato, 2017, pp. 592-3).

The issue was then referred to Advocate General Campos Sánchez-Bordona, who reasoned that the European Court of Justice does have jurisdiction to interpret a harmonised standard in a preliminary ruling. His rationale centred on the observation that the Court has jurisdiction to interpret Directives, and since harmonised standards supplement and support Directives, the Court's jurisdiction should extend to harmonised standards. (European Court of Justice, 2016b).

Following the Advocate General's line of reasoning, the European Court of Justice then affirmed its jurisdiction to interpret harmonised standards in a preliminary ruling. The Court's analysis was centred on two central tenets:

1) That conformity with a harmonised standard confers a presumption of conformity with EU law (in this case, the Construction Products Directive), and
2) While the development of harmonised standards is entrusted to organisations governed by private law, it should be seen as a "*necessary implementation measure*" which is "*governed by the essential requirements defined by that directive, initiated, managed and monitored by the Commission*" (European Court of Justice, 2016a, article 43).

On this basis, the European Court of Justice concluded that a harmonised standard "*forms part of EU law, since it is by reference to the provisions of such a standard that it is established whether or not the presumption laid down in Article 4(2) of Directive 89/106 applies to a given product*". (European Court of Justice, 2016a, article 40)

The Court also reiterated the Commission's responsibility in the process of initiating, managing and monitoring of harmonised standards. (European Commission, 2018, p. 3)

The Court's ruling that harmonised European Standards constitute part of EU law has served to underline both the importance of harmonised standards in the European legal system, but also the role of the European Commission in the development of new harmonised standards. This, in turn, has prompted a tightening of the Commission's

procedures for assessing standards before citation in the OJEU, thus placing an *"increased burden upon EU policy makers (including the European Commission) to ensure that these hENs are compatible with the corresponding EU legislation*." (Baron and Larouche, 2023, p. 56).

This "increased burden" can be seen in the Commission's own communication on the system for harmonised standards, published in the aftermath of James Elliot:

"*The Commission has thus the obligation to follow the development process of harmonised standards thoroughly and to assess whether they comply with the requirements set out in harmonised Union legislation and/or standardisation requests in order to ensure that harmonised standards fully comply with the applicable legislation. This does not only include the technical aspects of standards but also other elements of the European Standardisation Regulation, such as whether their development process has been inclusive. It is the Commission's intention to fulfil these obligations in a manner which is as swift and efficient as possible*." (European Commission, 2018, p. 3)

While the James Elliott case has clearly led to a tightening of the European Commission's procedures around the assessment of draft standards, this research project has identified very little empirical evidence linking the outcome of the James Elliott case to increases in delays to the publication of harmonised standards. The only empirical evidence, identified by this research project, is that gathered by the European Commission itself in its report on the implementation of Regulation 1025/2012. This report shows that the average time between the delivery of draft standards to the Commission and citation in the OJEU has decreased, from 298 days in 2018 to 121 days in 2021. (European Commission, 2022f, p. 8).

Table 1: Median (and mean) time (days) between delivery to Commission and citation in the OJEU

2018	2019	2020	2021
238 (298)	292 (322)	228 (231)	108 (121)

However, these data also show that there was a sharp increase in the average and median time taken by the Commission to assess draft standards, from 2018 to 2019.

The European Commission's report on the implementation of Regulation 1025/2012 also reveals a persistently low level of positive assessment of draft standards by the Commission (27.58%). (European Commission, 2022f, p. 7) This would suggest that the proportion of all draft standards, across all sectors, rejected by the Commission, between 2018 and 2021, is 72.42%. This 'non-citation' rate aligns closely to the annual non-citation rate of draft standards specific to construction products, reported in the European Commission's 2019 evaluation of the CPR (67% in 2014 and 2015; 31% in 2016, 80% in 2017 and 71% in 2018). (European Commission, 2019c, p. 29).

The reasons given for the low citation rate of draft standards, across all sectors, is a lack of alignment of draft standards with EU policy. The European Commission's report on the implementation of Regulation 1025/2012 states that more investment is needed in the standards development process – and in particular in the technical committees – to ensure that standards are more closely aligned to the EU's policy priorities and legal requirements. (European Commission, 2022f, p. 7)

While empirical evidence linking the outcome of the James Elliott case to delays in the publication of standards may be limited, what the data above show is that a high proportion of draft standards are still being rejected by the European Commission.

3.1.3. Issues around inclusivity and accountability of the process for drafting standards

The standardisation system as it stands has definite strengths. The use of standards drafted by ESOs in the service of public policy and regulations has "*allowed the Commission to tap into the subject matter expertise of private industry stakeholders for the development of the standards required for EU regulatory activities."* (Baron and Larouche, 2023, p. 8)

However, the reliance of the EU-CPR 2011 (and other many other EU regulations) on standards drafting has raised concerns about the inclusivity, legitimacy and accountability of the standard development process. Specifically, there are concerns that larger manufacturers are better represented on the ESO Technical Committees (TCs), and in the standards drafting process more generally, than SMEs. (Neerhof, 2019, p. 84; Baron and Larouche, 2023, pp. 48-51) Similarly, ESOs' processes may also provide for inadequate representation of other types of stakeholder (such as those representing consumers, trade unions, environmental organisations). (Baron and Larouche, 2023, pp. 45-8; Van Gestel and Micklitz, 2013, pp. 178-9).

The EU Regulation on Standardisation (Regulation (EU) No 1025/2012) sets out requirements around the involvement of different types of stakeholders in the standards development process. Article 5(1) of Regulation 1025/2012 calls upon ESOs to *"encourage and facilitate an appropriate representation and effective participation of all relevant stakeholders, including SMEs, consumer organisations and environmental and social stakeholders in their standardisation activities"*. Similarly, article 17(2) of the EU-CPR 2011 requires ESOs to "*ensure that the various categories of stakeholders are in all instances represented in a fair and equitable manner*", where such are involved in the process of developing harmonised standards. However, these provisions have in the past been criticised by academic researchers, who have described these articles as "*rather soft requirements with respect to stakeholder involvement*". (Van Gestel and Micklitz, 2013, p. 179).

Article 17(2) of the EU-CPR 2011 (Harmonised Standards)

Where stakeholders are involved in the process of developing harmonised standards pursuant to this Article, the European standardisation bodies shall ensure that the various categories of stakeholders are in all instances represented in a fair and equitable manner.

Issues of inclusivity and representation in the standards development process have been acknowledged by the European Commission in its recent *European Standardisation Strategy* (European Commission, 2022a), which advocates for broader changes in ESO governance and sets down steps to ensure better representation of SMEs and broader stakeholder groups.

The Strategy states: "*The Commission is concerned that today's decision-making processes within the European standardisation organisations, in particular in ETSI, allow*

an uneven voting power to certain corporate interests: some multinationals have acquired more votes than the bodies that represent the entire stakeholder community". (European Commission, 2022a, p. 4) The Strategy therefore calls upon ESOs to submit proposals to modernise their governance, including measures to address uneven and intransparent representation of industrial interests and increase the involvement of SMEs, civil society and product users. (European Commission, 2022a, p. 4)

Since no evaluations of the European Commission's new Standardisation Strategy have yet been undertaken, it is perhaps too soon to assess whether or not the Strategy has achieved its objective of improving inclusiveness.

3.2. Market surveillance and enforcement challenges

As with all product regulations, market surveillance plays a fundamental role in upholding the EU-CPR 2011. A system of market surveillance ensures that all actors comply with the EU-CPR 2011 and thus creates the basis for trust in the products on the market.

Articles 56-59 of the EU-CPR 2011 describes the procedures relating to the surveillance of the construction products market (the articles are outlined in full in appendix 1):

- Article 56 sets out the national level procedures to deal with construction products presenting a risk;
- Article 57 contains the Union safeguard procedure, for ensuring the compatibility of national measures with EU legislation;
- Article 58 covers provisions relating to compliant construction products which nevertheless present a risk to health and safety; and
- Article 59 details provisions dealing with formal non-compliance with the CPR.

These articles draw on and complement the articles contained in the "New Legislative Framework", in particular Regulation (EC) No 765/2008, which established the main administrative framework for market surveillance in Member States, and Decision No 768/2008/EC, which contained reference provisions for individual market surveillance procedures.

Market surveillance and enforcement activities vary considerably between Member States and the nature of such activities depends largely on national resourcing and budgets. Stakeholders representing European national regulatory authorities, consulted for this research, reveal that typical market surveillance activities include:

- desk-based inspections of technical documents (checking DoPs, CE marking, information on manufacturers' websites),
- sampled testing of actual products (to check that the product's performance matches the performance values declared in the DoP) and
- site visits to factories, to check manufacturing and Factory Production Control (FPC) processes.

Market surveillance activities are typically organised on a proactive and reactive basis. Proactive market surveillance includes information campaigns, but also product-specific campaigns whereby market surveillance and enforcement authorities undertake sampled inspections of products from a specific, pre-selected category (e.g. smoke alarms). Reactive market surveillance involves acting on information provided to regulatory authorities.

3.2.1. Ineffective market surveillance and enforcement

Anecdotal evidence from stakeholders and evidence from the literature review suggests that market surveillance and enforcement of the EU-CPR 2011, both in the UK and in EU Member States, has not been considered effective.

Ineffective market surveillance was cited in the European Commission's 2008 Impact Assessment as one of the main limitations of the Construction Products Directive. Improvements in market surveillance was, therefore, one of the main anticipated outcomes of the replacement of the CPD with the EU-CPR 2011 (European Commission, 2008b, p. 11).

However, challenges around enforcement and market surveillance have persisted under the CPR. According to the European Commission's 2019 evaluation of EU-CPR 2011, "*market surveillance activities are broadly seen by stakeholders as ineffective and varying widely in quality and effectiveness from one Member State to another*." (European Commission, 2019c, p. 23). Similarly, "*the implementation of market surveillance by many Member States has been insufficient and thus has not provided the expected impacts".* (VVA Economics & Policy. et al., 2018a, p. 107)

Evidence suggests that the extent of market surveillance activities carried out by EU Member States in support of the EU-CPR 2011 has been variable and limited. A study published by RPA in 2015 of the implementation of the EU-CPR 2011 found that, while state authorities were carrying out market surveillance activities on a proactive and reactive basis, the number and type of inspections carried out on construction products varied markedly from Member State to Member State (RPA, 2015, pp. 63-6). In the case of Belgium, it is notable that '*very little*' market surveillance activity was undertaken between the 2010 and 2013, with only 17 inspections of construction products being noted in this period. The Belgian authorities attributed this lack of enforcement activity to "*legislative uncertainty*" (specifically, waiting for rules related to electronic DoP) during the transition between the CPD and the EU-CPR 2011. (RPA, 2015, p. 63).

Similarly, findings from a survey of market surveillance authorities in 28 countries[14], conducted in 2018, reveal that "*market surveillance of construction products in the Member States markets is limited*". The survey found that the resources dedicated to market surveillance of construction products in surveyed countries was generally low. Of the 28 countries, 52% stated that they employ fewer than ten inspectors, while 38% declared that they lacked dedicated funds for laboratory testing. Of those which did have dedicated funds for laboratory testing, the majority (71%) declared an annual expenditure for testing at less than €100,000. From these findings, the authors conclude that "*there is strong evidence from the overall information collected to support that the extent of market surveillance in the Single Market is low*". (Kouros and Chrysostomou, 2020, p. 127)

Market surveillance and enforcement of the EU-CPR 2011 in the UK has also been reported as being exceptionally limited prior to the appointment of OPSS. Evidence gathered as part of the *Independent Review of the Construction Products Testing Regime* shows that "*there have been no prosecutions under CPR305/11 since it was enacted, and only a limited number of investigations by the relevant enforcement authorities (Trading Standards in England, Scotland and Wales, Environmental Health in Northern Ireland)."* Consequently, it is concluded that "*Enforcement* [in the UK] *has been almost totally non-existent*" (Morrell and Day, 2023, p. 19).

[14] This included 25 EU Member States, plus Norway, Iceland and Switzerland.

There is also a prevailing view amongst industry stakeholders[15] that enforcement of the EU-CPR 2011 by market surveillance authorities is largely ineffective. According to RPA's 2015 Implementation study, around one third of European companies involved in the manufacture of construction products would describe market surveillance as "*non-existent*" in their country. What's more, just under 70% of companies believe that "*appropriate enforcement actions are currently not being taken with regard to restricting or prohibiting the movement of noncompliant construction products from entering the EU market"* (RPA, 2015, p. 68). UK-based industry stakeholders consulted for this research express broadly similar views. Representatives of manufacturers, trade associations and building contractors all point out that they have seen no visible enforcement of the EU-CPR 2011 since it was enacted in the UK, along with negligible actions against non-compliant products or economic operators who bring non-compliant products to the market.

3.2.2. Resourcing issues

Insufficient market surveillance and enforcement of the EU-CPR 2011 has largely been attributed to resourcing issues at the level of national regulators; in particular, insufficient resources dedicated to tackling non-compliant construction products (VVA Economics & Policy. et al., 2018a, p. 107). Representatives of European national regulatory authorities consulted for this research broadly reinforce this, pointing out that resourcing for market surveillance of construction products remains a considerable challenge. Most of the national regulators consulted describe the teams responsible for market surveillance as being very small (often less than 10) who are usually part of the regulatory authority for buildings. One stakeholder mentions the need for "*more boots on the ground*" and explains that construction product compliance falls within the remit of officers who are primarily concerned with building control.

Resourcing issues are, to an extent, caused by budget cuts by Member State administrations. The CPR does not set minimum requirements around the resources to be made available for market surveillance, nor does it specify the nature or number of enforcement activities Member States are expected to undertake, nor the expected outcomes of these activities. This means that Member States have the freedom to choose how they organise their resources for market surveillance of construction products. This has contributed to considerable variation between Member States in the organisation of market surveillance,[16] the level of resourcing available, and the activities and approaches to market surveillance for construction products. Market surveillance authorities have also tended to prioritise the "*most problematic and sensitive sectors*" (medicines, chemicals, toys or children's products) which has contributed to a shrinking of resources for enforcement of construction products. (European Commission, 2019c, p. 32)

The consequence of this is that the EU-CPR 2011 has resulted in varying levels of market surveillance activity across Member States. One stakeholder representing a European trade association has pointed out that this leads to unequal experiences of enforcement by manufacturers operating in different parts of the EU: a manufacturer in a state with plentiful resources for market surveillance will be subjected to more checks than a manufacturer in a resource-poor country. The same stakeholder also explains that this dynamic has led to

[15] This includes manufacturers of construction products, trade associations and associations representing building contractors.

[16] In some states, market surveillance is centralised, whereas in other it is regionalised or even delegated to sub-regional geographic entities.

situations where manufacturers produce in one country, but then get their product tested in a neighbouring country, where enforcement and market surveillance is less strict.

However, it is important to point out that the absence of a prescriptive approach to the resourcing of market surveillance within the EU-CPR 2011 owes itself to the fact that, as outlined above, **the EU-CPR 2011 draws upon the requirements for market surveillance set out in Regulation (EC) No 765/2008**. The character of the EU-CPR 2011's requirements for market surveillance have therefore largely been shaped by this Regulation. It is interesting to note that Regulation (EC) No 765/2008 has also been described as having fallen short of fostering a uniform approach to market surveillance throughout Member States. According to an evaluation of Regulation (EC) No 765/2008, published in 2017, "*uniformity and rigorousness of market surveillance has not been achieved yet, due to the significant differences across Member States in the implementation of the Regulation as to the organisation of market surveillance at the national level, the availability of resources (financial, human and technical), the strategies of market surveillance, the powers of inspection and of sanctions and the systems of monitoring and reporting."* (European Commission, 2017b, p. 66).

The market surveillance provisions of **Regulation (EC) No 765/2008** have since been replaced by **Regulation (EU) 2019/1020** (on market surveillance and compliance of products), which sets out new general requirements for the market surveillance of products in the EU single market, the accreditation provisions of 765/2008 continue to apply in the EU.

This Regulation entered into force in July 2021 and **makes a small amendment to the provisions on market surveillance contained in the EU-CPR 2011**. However, this amendment consists of only a minor change to the wording of article 56(1) of the EU-CPR 2011. As such, **Regulation (EU) 2019/1020 appears to make no material change to the articles governing market surveillance as set out in the EU-CPR 2011**.

The two versions of article 56(1) are set out in appendix 1.

3.2.3. Effectiveness of EU-CPR 2011 in meeting its primary objectives

There are specific features of the EU-CPR 2011 which create challenges for regulators and enforcement authorities. In particular, **the provision whereby manufacturers may self-declare performance characteristics on the Declaration of Performance** (DoP) is a feature which limits the effectiveness of the CPR in meeting its primary objectives. This influences market surveillance and enforcement at national level.

The provision of self-declaration was built into the EU-CPR 2011 in the form of Commission Delegated Regulation (EU) No 574/2014, which amended annex III of the EU-CPR 2011 by allowing manufacturers greater flexibility in drawing up a DoP.

Crucially, this amendment allows manufacturers to omit certain details from the DoP, which are not considered to be relevant to the product, provided that the manufacturer includes on the DoP all of the mandatory information stipulated in article 6 of EU-CPR 2011.[17] This includes giving manufacturers the option not to list all certificates, test, calculation or assessment reports, provided that the Notified Bodies are properly identified. (European Commission, 2014b). **Manufacturers also have the option not to declare performance values for any of the product's essential characteristics, where such characteristics are deemed by the manufacturer not to be relevant to the products, provided that the performance value for at least one essential characteristic is declared**. In these instances, manufacturers may submit No Performance Declared (NPD) instead of inputting a performance value. Manufacturers may submit NPD for any essential characteristics which are not related to the product's intended use. This is in line with article 6 of the EU-CPR 2011, which states that the DoP must contain "*the performance of those essential characteristics of the construction product which are related to the intended use or uses, taking into consideration the provisions in relation to the intended use or uses where the manufacturer intends the product to be made available on the market*."

While the purpose of self-declaration and NPD was to ease the administrative burden on manufacturers (Harasymiuk, 2015, p. 19), the consequence of these provisions is that manufacturers can choose not to declare their product's performance for any essential characteristics where their product fails to generate a satisfactory value. This essentially enables manufacturers to conceal poor performance values for any essential characteristic. Numerous stakeholders consulted for this research representing trade associations have criticised this provision, claiming that it allows manufacturers to "*declare what they like on the DoP*". This provision also undermines the utility of DoP, especially for market surveillance authorities who need to use the information on the DoP to check that the product's performance values match its declared values. The fact that manufacturers have the option not to declare product performance for any essential characteristics serves to undermine article 56(1) of the EU-CPR 2011, which empowers market surveillance authorities to take action against a construction product, where they have sufficient reason to believe that a product "*does not achieve the declared performance and presents a risk for the fulfilment of the basic requirements for construction works*." If manufacturers can choose not to declare specific product performance values, then market surveillance authorities have no basis on which to assess product performance against this chosen characteristic. This means that, "*in practice, this prevents the Market Surveillance Authorities from effectively using these procedures*" (VVA Economics & Policy. et al., 2018a, p. 59).

[17] Mandatory information, which the manufacturer must include on the DoP, as stipulated by article 6 of the EU-CPR 2011, include: the product-type reference; the AVCP systems of the product; reference number and date of issue of the harmonised standard or ETA; the intended use of the product; the list of essential characteristics as set out in the harmonised technical specification; the **performance value of at least one of the essential characteristics**.

Article 56(1) of EU-CPR 2011 (Procedure to deal at national level with construction products presenting a risk[18]):

1. Where the market surveillance authorities of one Member State have sufficient reason to believe that a construction product covered by a harmonised standard or for which a European Technical Assessment has been issued does not achieve the declared performance and presents a risk for the fulfilment of the basic requirements for construction works covered by this Regulation, they shall carry out an evaluation in relation to the product concerned covering the respective requirements laid down by this Regulation. The relevant economic operators shall cooperate as necessary with the market surveillance authorities.

Where, in the course of that evaluation, the market surveillance authorities find that the construction product does not comply with the requirements laid down in this Regulation, they shall without delay require the relevant economic operator to take all appropriate corrective actions to bring the product into compliance with those requirements, notably with the declared performance, or to withdraw the product from the market, or recall it within a reasonable period, commensurate with the nature of the risk, as they may prescribe.

The market surveillance authorities shall inform the notified body accordingly, if a notified body is involved.

3.2.4. Enforcement lessons

The right knowledge

Discussions with stakeholders representing trade associations have revealed that increasing human resources alone will only go so far in strengthening enforcement and market surveillance of construction products. **Staff involved in the enforcement of the EU-CPR 2011 will also need to have the right knowledge** to understand the Declaration of Performance (DoP) and the information it displays, and ultimately to make a judgement about whether or not a product is compliant.

The DoP is a potentially complex document showing a product's performance values across a range of essential characteristics, however manufacturers can elect to put 'No Performance Declared' (NPD) for any of those characteristics. They are required to declare performance against at least one essential characteristic, however. Stakeholders emphasise that enforcement staff need to be able to do more than just check that a DoP has been submitted (and a CE mark has been affixed); they also need to be able to understand the information contained in the DoP to assess whether the product is compliant. For enforcement to be effective, and for non-compliant products to be identified, enforcement staff will need to be able to look at a product's DoP, assess whether the performance values for that product have been declared, and judge whether the declared values mean that the product is compliant. To do this, enforcement officers will need to possess a thorough technical knowledge of all products covered by the CPR (and their harmonised standards), and be able to assess, based on the declared intended use of the product, which essential characteristics should have performance values declared on the

[18] As amended by Regulation (EU) 2019/1020 of the European Parliament and of the Council of 20 June 2019 on market surveillance and compliance of products and amending Directive 2004/42/EC and Regulations (EC) No 765/2008 and (EU) No 305/2011.

DoP, and where NPD may be permissible. For instance, a steel girder, intended for structural use, would need to have performance values declared for essential characteristics relating to mechanical resistance and stability (whereas NPD may be acceptable for other essential characteristics, such as acoustic performance). Stakeholders emphasise that enforcement officers would need to be able to use their technical knowledge of construction products to work out which performance values should be declared, based on the product's intended use, and make a judgement about whether the information declared is sufficient to demonstrate compliance.

3.3. Regulatory coherence: overlaps between EU-CPR 2011 and other EU legislation

The most notable overlaps between the EU-CPR 2011 and other EU regulations are with the Ecodesign Directive (EDD) and with the Energy Labelling Directive (ELD). These overlaps are well documented in literature and addressed in discussions concerning the current proposal for a new Regulation on Ecodesign for Sustainable Products, which would replace the EDD.

Coherence

The CPR and the extant EDD are complementary in their scope, in that they pursue similar objectives, although these are distinct from one another, specifically:

- The CPR stipulates conditions for placing construction products on the EU market. Concerned with declaration of performance, it also encompasses related sustainability issues such as reuse and recycling.
- The EDD's primary focus is on the reduction of the environmental impact caused by the use of energy-related products (including certain construction products), as well as removing barriers to trade within the EU market. It is useful for addressing "minimum energy and environment-related requirements". (Economisti Associati et al., 2016).

Under current legislation, the following products covered by the CPR are classified as energy-related products under the EDD and manufacturers of these products must therefore ensure their products are compliant with both:

- Solid fuel boilers
- (Solid fuel) local space heaters
- Space/water heaters

These are regulated by the following Commission Implementing Regulations (EU)

- 2015/1185
- 2015/1188
- 2015/1189
- 813/2013
- 814/2013

Whilst, at a macro level, the two regulatory frameworks are complementary, there is potential for the substantive requirements of each to be at odds with – or at the very least be inconsistent with – each other regarding product characteristics and testing requirements.

This is exemplified in the case of solid fuel local space heaters, which are subject to both the EU-CPR 2011 and the EDD. Whilst this is the only current example of overlap, it demonstrates the possibility of unintended consequences in the application of such laws.

Indeed, the European Commission's *Supporting study for the Fitness Check on the construction sector*, reporting on fieldwork with stakeholders, raised concerns about the coherence of the procedures established under the EU-CPR 2011 with the EDD (and with the ELD). Research conducted during the EU-CPR 2011 implementation study found that only 28% of manufacturers agreed that the EU-CPR 2011 is "*consistent with the objectives of other EU policies and strategies in the area of competitiveness, innovation and sustainability*". (Economisti Associati et al., 2016, p. 91)

Furthermore, stakeholders were of the view that the EU-CPR 2011 did not present a solid framework for addressing sustainability issues. The 'Supporting study for the review of the Construction Products Regulation Evaluation: final report' reported that 40% of respondents in semi-structured interviews conducted for that research did not see "any significant incoherence [between the CPR and] other legislation". This suggests that as many as 60% of respondents identified *some* incoherence. (VVA Economics & Policy. et al., 2018a, p. 97).

Moreover, as highlighted in the *Supporting study for the Fitness Check on the construction sector,* the EU-CPR 2011 and the EDD differ – although not considerably – in their definition of 'economic operators' that are covered by the obligations of the respective legislations. Furthermore, there is little cross-referencing to energy-related product legislation in the CPR. Findings from that report are discussed in the sections below on CE marking and Impacts. (Economisti Associati et al., 2016, p. 92)

CE marking

Overlaps between the procedures established under the EU-CPR 2011 and the EDD – particularly surrounding routes for CE marking – have been highlighted by stakeholders in previous research.

Essentially, the two legislative frameworks apply in parallel: the requirements for CE marking under the EU-CPR 2011 apply in tandem to construction products that are also considered energy-related products under the EDD. However, the CE mark shall be the only mark that attests to the conformity of the product with the declared performance (whether that construction product is covered by a Harmonised Standard or where a European Technical Assessment (ETA) has been issued for that product). This means that only one CE mark is required for products covered by both regulations.

This provision is provided in article 8(2) of the EU-CPR 2011, which "*notes that the affixing of a CE marking on a product ensures that the manufacturer takes responsibility for the conformity of the construction product, not only with the declared performance and the*

requirements of the CPR, but also with applicable requirements in other relevant Union harmonisation legislation providing for its affixing". (Economisti Associati et al., 2016, p. 93)

Despite this arrangement, construction stakeholders would prefer that all requirements for construction products are dealt with exclusively by the EU-CPR 2011, rather than the EU-CPR 2011 and the EDD being applied in parallel. This would essentially mean that sustainability and other energy efficiency requirements currently covered by the EDD would need to be adopted by the EU-CPR 2011. Stakeholders suggest that, as the EU-CPR 2011 already covers environmental information and data related to construction products, the possibility already exists to "*adopt energy efficiency and sustainability requirements on the basis of basic requirements 3 and 7 set out in Annex 1 to the CPR, rather than via EDD*". (Economisti Associati et al., 2016, p. 94)

Up to now, **it would appear that there has been no considerable negative consequences – for either manufacturers or regulators – to result from the overlap between the EU-CPR 2011 and the EDD**. This is because the sustainability aspects of the EU-CPR 2011, covered in Basic Requirements 3 and 7, have not yet been included in any harmonised standard under the CPR: "*hence there is yet no estimate of any possible regulatory effect of this overlap*". (Economisti Associati et al., 2016, p. 94)

Impacts

While the overlap between the EDD and the EU-CPR 2011 appears not to have caused any major problems, the potential for conflict between the requirements set out between the two regulations is still present. Stakeholders contributing to the *Supporting study for the Fitness Check on the construction sector* point out that the implementing regulation under the EDD might go into more detail about the characteristics of a product, or it might stipulate a different testing regime. (Economisti Associati et al., 2016, p. 94) Whilst these points are not supported by evidence, they highlight the potential for impacts on the sector, specifically manufacturers.

As pointed out in the Fitness Check report – and elsewhere in this report, specifically in section 3.1 – the process for adoption or modification of harmonised standards can be lengthy as it requires cooperation of the European Commission and the European Standardisation Organisations.

Regulation on Ecodesign for Sustainable Products (ESPR)

In 2019, the European Commission presented the European Green Deal aimed at making Europe the first climate-neutral continent by 2050, with the underpinning objectives of boosting the economy and improving people's health, quality of life and the natural environment.

The ideal of the European Green Deal heralded the way for the proposal for a Regulation on Ecodesign for Sustainable Products, replacing the EDD with legislation with a broader scope extending "*to cover the broadest possible range of products*". As well as energy efficiency, the new framework would also cover product circularity and address an overall reduction of the environmental and climate footprint of products. (European Commission, 2022h, p. 2).

The revision of the Construction Products Regulation was also presented as part of a package (along with the EU Strategy for Sustainable and Circular Textiles) to address priority product groups that have a significant effect on the environment and on the climate.

The revisions also responded to growing divergence between EU member states in their pursuance of their own individual sustainability goals. An objective of the new legislative framework is therefore to prevent fragmentation in the single market: to avoid market distortions which might risk increasing the costs of doing business. The Commission states that "*harmonised EU rules will avoid such market distortions, considerably scale the market for environmentally sustainable products and ultimately reduce compliance costs and administrative burden for businesses operating across the EU*." It goes onto herald the ESPR as "*the cornerstone of the Commission's approach to more environmentally sustainable and circular products"*. (European Commission, 2022h, p. 4).

Crucially, Ecodesign requirements will be tailored to the characteristics of the product groups concerned, with the ecodesign requirements covering:

- product durability, reliability, reusability, upgradability, reparability, ease of maintenance and refurbishment;
- restrictions on the presence of substances that inhibit the circularity of products and materials;
- energy use or energy efficiency of products;
- resource use or resource efficiency of products;
- minimum recycled content in products;
- ease of disassembly, remanufacturing and recycling of products and materials;
- life-cycle environmental impact of products, including their carbon and environmental footprints;
- preventing and reducing waste, including packaging waste. (European Commission, 2022h, p. 4).

The EU will also be able to set labelling requirements and will incorporate information on circularity (e.g. a 'repair score'). For construction products, in particular, they should be reusable in other industries and vice versa. (Meda et al., 2023). In terms of other information requirements, it is not clear whether EPCs will become mandatory under the ESPR, as per expectations around the EU-CPR 2011 which was anticipated to make EPCs mandatory. Digital passports are also a key feature of the ESPR.

Notably, for products that are subject to separate legislation, "*the ESPR will only intervene when the environmental sustainability dimension of those products cannot be fully and appropriately addressed by other instruments*", thus reducing the regulatory burden on businesses. Furthermore, "*it is justified*" to include requirements related to environmental sustainability under the EU-CPR 2024. In the case of energy-related products, however, sustainability aspects will be dealt with under the ESPR, as they were under the EDD. The EU-CPR 2011 "*may intervene in a complementary manner, where needed.*" (European Commission, 2022h, pp. 7-8).

Notwithstanding, a key objective for the EU-CPR 2024 is that it would be "*aligned with the proposed regulation on ecodesign requirements for sustainable products on climate and environmental sustainability and on the digital product passport*". (Doleschal and Matthieu, 2024, p. 1)

Indeed, revisions to wording on the specific point of alignment between the proposed ESPR and CPR revisions were adopted by the Competitiveness Council in May 2023. The changes related to making clear that the ESPR should not set requirements for environmental sustainability when these have already been developed under EU-CPR 2011. Importantly, the proposed wording also addresses the potential issue of double-testing of construction products. **However, in the case of construction products that are also energy-related products, these will continue to be subject to the sustainability requirements set under the ESPR**. The relevant extract is included below (bold text is included for emphasis).

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC (Text with EEA relevance)

(43) Where other, more product-specific regulations, enable the Commission to adopt delegated acts regulating environmental sustainability, and such delegated acts have been adopted, this Regulation should only in exceptional cases intervene in a complementary manner. For example, this Regulation should not set requirements on final construction products when requirements on environmental sustainability for such products have already been developed under [the Construction Products Regulation].

Only in exceptional cases where requirements under the Construction Products Regulation are insufficient or ineffective, and cannot be amended or complemented under the Construction Products Regulation in a reasonable time, this Regulation should be able to intervene in a complementary manner on construction products, provided the administrative cost entailed, including as a result of economic actors potentially becoming subject to two conformity assessment procedures, is shown to be reasonable. To avoid that economic operators become subject to a duplication of or potentially conflicting requirements or delegated acts the Commission should, before preparing such complementary requirements under the Construction Products Regulation, consider if the delegated act already adopted under this Regulation can be repealed or amended so that requirements are instead included in a measure being adopted under the Construction Products Regulation. When formulating working plans under this Regulation, the Commission should however take into account that, in continuation of current practice, [the revised Construction Products Regulation] will, **in relation to energy-related products that are also construction products, give prevalence to sustainability requirements set under this Regulation**. This should be the case for instance for heaters, boilers, heat pumps, water and space heating appliances, fans, cooling and ventilating systems and photovoltaic products (excluding building-integrated photovoltaic panels). For these products, [the revised Construction Products Regulation] may only intervene in a complementary manner in relation to safety aspects, also taking account of other Union legislation on products such as on gas appliances, low voltage, and machinery.

3.4. Unintended consequences of regulations and regulatory changes

3.4.1. Challenges delivering on the wider sustainability objectives

As explained in section 2.2, above, the EU-CPR 2011 placed a new emphasis on the **sustainability and environmental impacts of construction products**. This is articulated primarily through Basic Work Requirement (BWR) 3 (*Hygiene, health and the environment*) – which represents an expanded version of Essential Requirement 3 under the CPD – and BWR 7 (*Sustainable use of natural resource*), which was a new BWR added to the CPR to enhance the focus on the sustainability impacts of construction products.

Basic Work Requirement 3 of current CPR – *Hygiene, Health and Environment*

The construction works must be designed and built in such a way that they will, throughout their life cycle, not be a threat to the hygiene or health and safety of workers, occupants or neighbours, nor have an exceedingly high impact, over their entire life cycle, on the environmental quality or on the climate during their construction, use and demolition, in particular as a result of any of the following:

(a) the giving-off of toxic gas;

(b) the emissions of dangerous substances, volatile organic compounds (VOC), greenhouse gases or dangerous particles into indoor or outdoor air;

(c) the emission of dangerous radiation;

(d) the release of dangerous substances into ground water, marine waters, surface waters or soil;

(e) the release of dangerous substances into drinking water or substances which have an otherwise negative impact on drinking water;

(f) faulty discharge of waste water, emission of flue gases or faulty disposal of solid or liquid waste;

(g) dampness in parts of the construction works or on surfaces within the construction works.

Basic Work Requirement 7 of current CPR – *Sustainable use of natural resources*

The construction works must be designed, built and demolished in such a way that the use of natural resources is sustainable and in particular ensure the following:

(a) reuse or recyclability of the construction works, their materials and parts after demolition;

(b) durability of the construction works;

(c) use of environmentally compatible raw and secondary materials in the construction works

However, the reliance of the EU-CPR 2011 on old standards, many of which dating back to the CPD-era, has created **challenges around the CPR's ability to deliver on environmental and sustainability objectives**.

3.4.2. National marks and certifications

Some Member States have asserted that many of the standards which underpin the current system for construction products under the EU-CPR 2011 "are not detailed enough, meaning that their provisions do not set out broadly and deeply enough the assessment methods and criteria for all the essential characteristics of construction products". Historically, some Member States have imposed additional national requirements on CE-marked construction products sold in their territories, on top of the requirements set out in harmonised standards. Evidence gathered as part of the European Commission's 2019 evaluation of the EU-CPR 2011 shows that several EU Member States still set product requirements. These include national type approvals and documentation of fire properties for ceiling panels (in wood and wood-like products) (European Commission, 2019c, p. 21).

However, **the use of mandatory national marks in order to place products on the market** – and the imposition of additional national requirements on construction products covered by a CE mark – **is not permitted under the EU-CPR 2011**. Article 8 of the EU-CPR 2011 states that, for products covered by a harmonised standard, "*the CE marking shall be the only marking which attests conformity of the construction product with the declared performance.*" Similarly, Member States should "*ensure that the use of construction products bearing the CE marking shall not be impeded by rules or conditions imposed by public bodies or private bodies acting as a public undertaking*."

Article 8 of the EU-CPR 2011 (General principles and use of CE marking)

3. For any construction product covered by a harmonised standard, or for which a European Technical Assessment has been issued, the CE marking shall be the only marking which attests conformity of the construction product with the declared performance in relation to the essential characteristics, covered by that harmonised standard or by the European Technical Assessment.

In this respect, Member States shall not introduce any references or shall withdraw any references in national measures to a marking attesting conformity with the declared performance in relation to the essential characteristics covered by a harmonised standard other than the CE marking.

4. A Member State shall not prohibit or impede, within its territory or under its responsibility, the making available on the market or the use of construction products bearing the CE marking, when the declared performances correspond to the requirements for such use in that Member State.

5. A Member State shall ensure that the use of construction products bearing the CE marking shall not be impeded by rules or conditions imposed by public bodies or private bodies acting as a public undertaking, or acting as a public body on the basis of a monopoly position or under a public mandate, when the declared performances correspond to the requirements for such use in that Member State.

The prohibition on national marks is based on the idea that national requirements constitute an obstacle to the functioning of the single market, creating barriers which prevent products entering the market. Such barriers include "*requirements for additional testing or national product approval in order for it to be marketed or used within the Member State in question, with associated additional costs, even when these products have undergone the harmonised European procedures for that purpose*." (European Commission, 2019c, p. 21).

A good example of national requirements creating barriers to trade is provided by the Federal Republic of Germany. The German standardisation body holds a particular position of dominance in the domestic market, so much so that it has, historically, been very difficult for manufacturers to sell their construction products on the German market (even those which are CE marked), without conforming to this institute's standards. (European Commission, 2017, p. 152) In 2012, the Deutsches Institut für Bautechnik (DIBt) required a Danish flooring company to carry out additional tests (to be undertaken by a Germany testing body) concerning the health and environmental impacts of their products, in order to market their products in Germany. The products had already been assessed against the applicable harmonised standard and carried the CE mark. These additional tests came at considerable cost to the company in question. This consequently forced the company to limit the number of products it offers in the German market, as additional testing costs millions of Danish kroner per product. (Copenhagen Economics, 2012, p. 46).

Although it is not known if this requirement by the DIBt was challenged at the time, the Confederation of Danish Industry has since complained about this practice, pointing out that the demand for national certificates and testing requirements above those in the harmonised standards "*constitutes a heavy bureaucratic burden for manufacturers wishing to export their products to the aforementioned markets*". (European Commission, 2020, p. 120).

In order to uphold the principle of the free market, the **European Union has taken legal action against Member States which have wilfully imposed national requirements**, over and above harmonised standards, as a condition of acquiring access to national markets. In March 2008, the European Court ruled that the Kingdom of Belgium, "*by encouraging economic operators wishing to market in Belgium construction products lawfully manufactured and/or marketed in another Member State to obtain Belgian marks of conformity*", had failed to fulfil its obligations under the CPD (European Court of Justice, 2008).

Perhaps more significant, in a **Judgement of the Court against the Federal Republic of Germany**, of 10th October 2014 (Case C-100/13), the Court ruled that **the imposition of additional requirements on construction products covered by harmonised standards**,[19] for their effective access to the market and their use on the national territory, **is contrary to the EU-CPR 2011**. The Court ruling affirmed the principle of 'exhaustive harmonisation' and asserted that any additional requirements placed on construction

[19] The products in question were construction products covered by harmonised standards EN 681-2:2000, **'Rubber seals – Specification of materials for seals used in the field of water and drainage – Part 2: Thermoplastic elastomers'**, EN 13162:2008, (**Thermal insulation products for buildings – Manufactured products of mineral wool** (MW) – Specification', and EN 13241-1, **'Industrial, commercial and garage doors and gates – Product standard – Part 1: Products without fire or smoke protection characteristics'**

products covered by a harmonised standard impedes the free movement of construction products and the functioning of the single market:

"*Those procedures laid down by Directive 89/106 cannot, contrary to what the Federal Republic of Germany maintains, be regarded as optional where a Member State considers that an existing harmonised standard is inadequate. Even in such a case, a Member State may not adopt unilateral national measures restricting the free movement of construction products which comply with that harmonised standard and therefore bear the CE marking, to the exclusion of those provided for by Directive 89/106*." (European Court of Justice, 2014, article 58).

The Court's decision in the abovementioned case was then reaffirmed in a later Court ruling (Case T-229/17), on 10th April 2019, which was issued in response to an appeal by the Federal Republic of Germany. The Court concluded that "*the harmonised system created under the CPR is to be considered exhaustive and that Member States are to refrain from unilateral actions, even when harmonised standards do not contain all the elements necessary to fulfil their regulatory needs*." (European Commission, 2019c, p. 23). While this ruling confirmed the principle of exhaustive harmonisation, already established in case C-100/13, the statement that Member States cannot impose additional requirements onto harmonised standards, even where such standards lack the elements necessary to fulfil regulatory needs, potentially comes into conflict with the fact that Member States are responsible for safety requirements applicable to buildings and civil engineering works.

No penalty was imposed on Germany as a result of these court decisions, although the Federal Republic of Germany was expected to pay the court costs.

4. Impact on manufacturers

4.1. Legal clarity on the role and obligations of manufacturers under the EU-CPR 2011

Evidence from the literature review and from stakeholders also suggests that the CPR has helped to **enhance the legal clarity around the obligations of economic operators**.

Unlike the CPD, the EU-CPR 2011 sets out the obligations not only for manufacturers, but also for other key economic operators, specifically importers, distributors and manufacturers' authorised representatives. These are covered in chapter III of the CPR, which includes:

- Article 11: Obligations of manufacturers
- Article 12: Authorised representatives
- Article 13: Obligations of importers
- Article 14: Obligations of distributors

According to RPA's 2015 study of the implementation of the EU-CPR 2011, chapter III of the EU-CPR 2011 – which describes the legal obligations of economic operators – "*has been effective in terms of increasing legal certainty and transparency regarding the rules*." (RPA, 2015, p. ii). The study found that around three quarters of public authorities and organisations involved in conformity assessments (Notified Bodies, Technical Assessment Bodies) believed that the EU-CPR 2011 had had a positive effect in terms of increasing the legal certainty and transparency regarding the rules governing economic operators. Similarly, two thirds of public authorities and organisations involved in conformity assessments were of the opinion that the EU-CPR 2011 had improved the ease of compliance for companies, thus making enforcement of the legislation easier for Market Surveillance Authorities (RPA, 2015, pp. 73-4).

Interestingly, a comparatively lower proportion of manufacturers, surveyed as part of the RPA report, considered the EU-CPR 2011 to have delivered benefits in these areas. Just under half (46%) of manufacturers believed that the EU-CPR 2011 had a positive effect in terms of increasing the legal certainty and transparency (45% considered the EU-CPR 2011 to have brought about no change), while only 34% considered that the EU-CPR 2011 has increased ease of compliance and enforcement (55% believed that the EU-CPR 2011 has delivered no change). (RPA, 2015, pp. 73-4). One of the reasons suggested for this difference in opinion is that the EU-CPR 2011 was perceived by manufacturers as having led to an increase in administrative burdens, thus making compliance more complicated (this is explored in more detail in section 4.3). (RPA, 2015, p. 144).

These findings align broadly with the views expressed by stakeholders consulted for this research. Stakeholders representing trade associations and manufacturers tend to agree that manufacturers generally understand what is expected of them under the EU-CPR 2011. Manufacturers of construction products are, overall, familiar with the obligations associated with the DoP and CE marking, as well as with the testing requirements needed to assess product performance. Stakeholders representing trade associations also explain that the **EU-CPR 2011 has helped to establish greater clarity on the roles and obligations of manufacturers**, primarily by making CE marking compulsory. The provision of obligatory CE marking helped to resolve many *"grey areas"* for manufacturers which existed under the CPD, as well as helping to address the ambiguity around whether

or not manufacturers should CE mark their products. By making CE marking compulsory, the rules around compliance were made clearer for manufacturers: if their product was covered by a harmonised standard, then testing against that standard is compulsory and CE marking is mandatory.

However, stakeholders consulted for this research also point out that **the transition to the EU-CPR 3011 from the CPD was not always smooth for manufacturers**, and that **manufacturers experienced several challenges adapting to the EU-CPR 2011** when it first came into force. The biggest learning curve for manufacturers appears to have been the Declaration of Performance (DoP), which was made compulsory under the CPR for all manufacturers producing a product covered by a harmonised standard. Stakeholders representing trade associations and manufacturers emphasise that the **DoP was perceived to be more complicated than the Declaration of Conformity** (DoC) (which had been optional under the CPD), as the DoP required data on the product's performance characteristics. This was perceived as a step change from the DoC, which required manufacturers to declare only the harmonised specification to which their product conforms. These views are also echoed by representatives of national regulators, consulted for this research, who confirm that many manufacturers – especially smaller manufacturers – found the process of adapting to the requirements of the DoP challenging. **Stakeholders representing trade associations also point out that there was a lack of guidance from Government about how manufacturers should draw up a DoP**, which contributed to the confusion. With time, however, manufacturers have adapted to these requirements: stakeholders broadly agree that manufacturers have now got used to the DoP and, generally, have little difficulty complying with the requirements of the DoP.

Where compliance with the EU-CPR 2011 gets more complicated for manufacturers tends to be around innovative products, or products for which no harmonised standard exists. However, stakeholders representing trade associations suggest that complications in this regard are less the result of the EU-CPR 2011 itself, and more a consequence of market expectations and clients who demand CE marking even for products not covered by a harmonised standard. Under the EU-CPR 2011, there is no statutory requirement for CE marking of products not covered by a harmonised standard (or EAD). However, stakeholders emphasise that many construction product clients and specifiers expect to see the CE mark for all products, even those for which there is no harmonised standard. This forces manufacturers to explore the ETA route (or third-party certification), in order to get the DoP and CE mark, even though there is no legislative requirement. This tendency has also been observed in academic literature on the EU-CPR 2011. (Zacharopoulou, 2013, p. 280). Challenges around the CE marking of innovative products, or products without a harmonised standard are, therefore, more the result of market expectations than they are the result of the EU-CPR 2011 itself.

4.2. Impact of standards development on manufacturers

The reliance of the EU-CPR 2011 on old, CPD-era standards (described above, in section 3.1) creates considerable **confusion for manufacturers of construction products**.

Confusion is particularly pronounced in instances where more up-to-date standards have been developed by CEN but have not yet been cited in the OJEU. This is the case for several product standards, including EN 12004 (the Standard for adhesives for ceramic tiles). The most up to date version of this product standard was issued by CEN in 2017 (EN 12004-1:2017), but the standard which is published in the list of European harmonised

standards is the 2012 version of the standard (EN 12004:2007+A1:2012). (Lukasik et al., 2020, p. 2) This means that manufacturers of ceramic tile adhesives have a legal requirement to comply with an older standard even though a more recent one exists. The issue is also the case in the UK. Stakeholders representing both industry bodies and national regulators, consulted for this research project, emphasise that the need to comply with superseded standards causes confusion and frustration for manufacturers, especially as many manufacturers want their products to conform to the newest, most recent standards available. However, it is important that proper consideration of new and revised standards is made ahead of citation.

Impacts of standards development on industry – Learnings from the space heating appliance sector.

Stakeholders in the space heating sector (especially solid fuel local space heaters) explain that one of the challenges for manufacturers in the transition from the CPD to the EU-CPR 2011 was that the harmonised standards for solid fuel local space heaters did not "*catch up quickly enough*".

After the CPR came into force, it took over ten years for the old, CPD-era standards for solid fuel heating appliances to be updated and harmonised under the EU-CPR 2011. The new standard for residential solid fuel burning appliances (EN 16510:2022), which replaced the previous harmonised standard for room heaters fired by solid fuel (EN 13240:2001+A2:2004), is only just going through the process of harmonisation. This means that, for over a decade, manufacturers of solid fuel burning appliances have had to comply with the old standard while the new one has been going through the harmonisation process.

Manufacturers emphasise that reliance on out-of-date standards creates difficulties and confusion around knowing which standards they should test against. When a new standard is published, manufacturers are keen to know which one they should test against. In the words of one manufacturer, "*you don't want to be accused of producing something that is unsafe because you have tested against the old standard*"

To make matters more complicated, even after a standard is harmonised, **manufacturers cannot test against a new standard until the relevant Approved Body acquires accreditation to use that standard**.

Impacts of the standards backlog on industry – Learnings from the adhesives sector.

Stakeholders in the adhesives sector emphasise that the biggest challenge for adhesives manufacturers currently is the fact that most standards for adhesives, mandated under the EU-CPR 2011, have been superseded.

The majority of standards for adhesives date back to the CPD. Although many more up-to-date versions of adhesives standards exist, these have not yet been harmonised and so are blocked from citation in the OJEU. In some cases, such as ceramic tile adhesives, this means that manufacturers need to assess their products against an old standard which has been withdrawn, but which is still cited in the list of European harmonised standards as the mandatory one. The need to comply with an old standard which has since been updated (but not harmonised) causes great confusion for

manufacturers who naturally believe that they should be complying with the more recent standard.

This issue is explored in more detail, below, in the case study about adhesives.

The underperformance of the standardisation system also means that, increasingly, manufacturers are looking to the alternative route to CE marking, through the European Technical Assessment (ETA), to demonstrate the performance of their products. This, in turn, has increased the demand for ETAs for certain construction product types (European Commission, 2022b, p. 2). This 'EOTA route' was established to promote innovation in areas not yet covered by a harmonised standard (Tenhunen, 2022, pp. 3-4). Since 2019, no harmonised standard created as part of the CPR has been cited in the OJEU. In contrast, EOTA has developed 583 EADs since 2021 alone which, in return, formed the basis for 10,519 ETAs issued by technical assessment bodies (EOTA, no date). The alternative pathway via the EOTA has therefore turned into a quasi-main route. This contradicts the original, innovation-promoting purpose of the 'EOTA route', serving instead products already on the market in contrast to those seeking speedy admission to the Single Market (Ragonnaud, 2023, p. 7).

4.3. Administrative and financial costs associated with compliance

Empirical evidence relating to the administrative and financial costs faced by manufacturers when complying with the CPR is quite limited. What the evidence suggests most clearly is that the **administrative and financial burdens of compliance are greatest, in relative terms, for smaller manufacturers**.

The European Commission's *Supporting study for the Fitness Check on the construction sector* suggests that the transition from the CPD to the EU-CPR 2011 led to increased financial and administrative costs for manufacturers of construction products in the EU. According to an economic analysis undertaken as part of this study, **the total administrative burdens placed on manufacturers by the EU-CPR 2011 in 2014 was estimated to be around €3.1 billion**, accounting for 1.1% of the total construction sector turnover in that year. **This is almost double the estimated administrative burden for 2012**, the year before the EU-CPR 2011 entered into force (€1.6 billion euros, representing 0.5% of the sector). (Economisti Associati et al., 2016, p. 44). These cost increases are linked to the need to supply the Declaration of Performance and CE marking, which were made mandatory under the EU-CPR 2011.

Activities related to the DoP include:

- Drawing up the technical documentation (incl. assessing performance on each essential characteristic, drawing up the description of FPC);
- Drawing up the DoP (incl. translating the DoP if necessary);
- Supplying the DoP on paper or electronically;
- Storing the DoP and technical documentation.

Activities related to CE marking include:

- Acquiring harmonised standards, familiarising with standards, and affixing CE marking (incl. gathering the required information (from DoP);
- designing the label/accompanying documents;
- translating into other languages if necessary;

A slightly lower figure has been reported in the *Economic Impacts of the Construction Products Regulation*. This study calculated that the **total administrative burden for manufacturers when complying with the EU-CPR 2011 was €2.62 billion euros per year**. Interestingly, this study also found that increases in administrative costs associated with the transition from the CPD to the EU-CPR 2011 were minimal. The study found that the "*average increase in production costs for European manufacturers of construction products compared with the pre-CPR situation is 4%"* (VVA Europe et al., 2017, pp. 38-9)

It is not immediately clear what accounts for this discrepancy in the findings of the two studies. However, both economic analyses appear to have been undertaken on the basis of information provided by a relatively small number of manufacturers (17 for the *Fitness Check*; 30 for the *Economic Impacts*). With small sample sizes, small differences in experiences and opinions can become magnified.

Where both studies agree, however, is in showing that the **administrative and financial burden of compliance with the EU-CPR 2011 is greatest for small and micro companies**. The economic analysis carried out as part of the *Fitness Check* shows that, in 2013, the administrative burdens of compliance with the CPR for micro companies were €1.8 billion (compared to €0.8 billion for small companies and €0.5 billion for medium and large companies). (Economisti Associati et al., 2016, p. 44. See Table 2).

Table 2: Administrative burdens (in €) linked to the obligation of providing information to customers (including DoP and CE marking)

	2011	2012	2013	2014
Micro	€0.6 billion	€0.6 billion	€1.8 billion	€1.8 billion
Small	€0.7 billion	€0.7 billion	€0.8 billion	€0.8 billion
Medium and large	€0.4 billion	€0.4 billion	€0.5 billion	€0.5 billion
Total burdens	€1.7 billion	€1.6 billion	€3.1 billion	€3.1 billion

Source: Economisti Associati et al., 2016, p. 44

Similarly, the *Economic Impacts* shows that the administrative burdens of compliance for micro companies were €1.44 billion (compared to €0.47 billion for small companies, €0.43 billion for medium companies and €0.28 for large companies). (VVA Europe et al., 2017, p. 38)

Table 3: Total administrative burden incurred by European manufacturers of construction products to comply with the obligations related to the CE marking and DoP

Company size	Total administrative burden in the EU28 (per year)
Micro	€ 1.44 billion

Small	€ 0.47 billion
Medium	€ 0.43 billion
Large	€ 0.28 billion
Total	€ 2.62 billion

Source: VVA Europe et al., 2017, p. 38

The economic analysis as part of the *Fitness Check* also shows that micro companies experienced the starkest increase in costs in the transition from the CPD to the EU-CPR 2011. Total regulatory costs, associated with the DoP and CE marking, increased from **€0.6 billion in 2012 to €1.8 billion in 2013 for micro businesses** (compared to an increase from €0.7 billion to €0.8 billion for small businesses, and €0.4 billion to €0.5 billion for medium and large companies) (Economisti Associati et al., 2016, p. 44. See Table 2). This is perhaps unsurprising, as it is likely that many medium and large companies were already CE marking their products and obtaining the DoC, under the CPD. **The introduction of the DoP and mandatory CE marking, therefore, was arguably a greater step change for smaller companies, leading to greater cost increases, compared to larger ones**.

According to evidence provided by stakeholders representing trade associations, product testing represents a greater cost investment for smaller companies manufacturing smaller batches of products. This is because it costs the same amount to get a product tested, regardless of whether a company manufactures only 100 products per year, or thousands per year. Larger companies manufacturing in higher volumes are therefore more able to offset the costs of testing. While the EU-CPR 2011 contains derogations (article 5) specifically designed to exempt businesses manufacturing in small numbers from drawing up a DoP, evidence suggests that these measures have not been taken up by manufacturers and so costs of testing for smaller manufacturers have not been offset (this is explored in more detail in 4.4, below).

While industry stakeholders consulted for this research broadly agree that the EU-CPR 2011 has led to increased costs and administrative burdens for manufacturers, several stakeholders (representing trade associations) point out that, even if CE marking and compulsory testing against harmonised standards did not exist, it is likely that the market would continue to place an expectation on manufacturers to demonstrate that their products comply with a set of standards. Many clients would, for instance, request third-party certifications, which would have costs associated with it. What this suggests is that, even if there were no system of harmonised standards, manufacturers would likely still have to meet the costs of some kind of certification. Stakeholders emphasise that a system of compulsory compliance based on harmonised standards is easier and simpler for manufacturers, compared to a system based on non-mandatory, client-driven use of third-party certifications.

One stakeholder, representing a European trade association, also reasons that, while the EU-CPR 2011 may have led to more costs for more manufacturers, it offers a more efficient and streamlined process than the CPD, which will ultimately lead to cost savings for manufacturers in the long-term. As the CPD was a Directive, it was implemented differently in different Member States, so the rules around meeting the requirements of

CPD varied between states, which created more confusion and administration and costs for manufacturers wanting to sell in different EU states. The EU-CPR 2011, however, is based on harmonised standards which have the same requirements across the whole of EU economic zone. The EU-CPR 2011, while more costly to some manufacturers in the short-term, is more efficient and more cost-effective in the long-term.

4.4. Industry uptake of simplification measures

One of the main objectives of replacing the CPD with the EU-CPR 2011 was to achieve 'simplification'. According to the European Commission's 2008 Impact Assessment – which set out and evaluated options for the revision of the CPD – one of the biggest problems associated with the CPD was that the costs of carrying out the Conformity Assessment and achieving the CE marking were particularly high for micro enterprises and manufacturers of custom-made or non-series products, and products manufactured in small numbers. It was proposed, therefore, that simplified procedures would be offered to SMEs and micro-enterprises as means of offsetting the costs of testing for smaller manufacturers. (European Commission, 2008b, p. 11)

The CPR therefore provides derogations from the obligation to draw up a DoP, as well as simplified procedures for placing construction products on the market. Specifically, these are:

- **Article 5** provides **derogations from the obligation to draw up a DoP** when the construction product is a) "*individually manufactured or custom-made in a non-series process in response to a specific order and installed by the manufacturer*"; or b) "*is manufactured on the construction site*"; or "*is manufactured in a traditional manner or in a manner appropriate to heritage conservation and in a non-industrial process*."
- **Article 36** sets out the conditions under which manufacturers may **avoid the unnecessary testing of construction products** for which performance has already been demonstrated. This article allows manufacturers to replace the type-testing or type-calculation stage of the assessment of performance with Appropriate Technical Documentation, in the event that tests have been carried out for corresponding products (sometimes referred to as Shared Initial Type Testing), and for assembled systems of components, when testing has been carried out for the same system (sometimes referred to as Cascading Initial Type Testing).
- **Article 37** provides micro-enterprises the option to use **simplified procedures** when carrying out the AVCP. It enables micro-enterprises to use different methods from those contained in the applicable harmonised standard for products covered by Systems 3 and 4, and to resort to System 4 for products for which System 3 would be required. Manufacturers must instead demonstrate the compliance of their products by producing a **Specific Technical Documentation**, as well as demonstrating equivalence of the procedures used with those laid down in the harmonised standard.
- **Article 38** gives manufacturers the options to draw up Specific Technical Documentation in place of the performance assessment, for construction products which "*are individually manufactured or custom-made in a non-series process in response to a specific order*."

It was hoped that these simplification methods would alleviate the administrative burden and the costs associated with bringing construction products to the market; effects which would especially benefit smaller manufacturers.

However, evidence from the literature review and from stakeholder interviews suggests that the uptake of these procedures by companies has been very limited, with the exception of article 36, which is reported to be widely applied. (VVA Economics & Policy. et al., 2018a, p. 43). RPA's 2015 Analysis of the Implementation of the EU-CPR 2011 reports that there have been "*only isolated examples of Article 5 being applied by industry and, consequently, the financial burden on companies has not been alleviated to the extent envisaged*." Stakeholders interviewed as part of RPA's study attributed the limited uptake of article 5 to a **lack of clarity around key terms**, including confusion around what constitutes a product that is "*individually manufactured*" or "*custom made in a non-series process in response to a specific order*". (RPA, 2015, p. 188).

RPA's study also finds that "*the uptake of Articles 37 and 38 has been low, which has prevented their associated benefits from being achieved."* (RPA, 2015, p. 190). The low uptake of articles 5, 37 and 38 has also been confirmed in other studies, such as the *Supporting study for the Fitness Check on the construction sector*, (Economisti Associati et al., 2016, pp. 45-6) and the European Commission's 2016 *Implementation Report* (European Commission, 2016a, p. 9). These reports show that the reasons for the very low uptake (except for Article 36) include, on the one hand, low awareness of the simplified procedures and, on the other, a lack of clarity around key terms associated with these procedures, as well as the risk that national authorities may interpret simplified articles differently.

These findings are also confirmed in the European Commission's 2018 evaluation supporting study of the EU-CPR 2011. According to findings from the online survey of stakeholders, carried out in support of the evaluation, 35% of respondents state that no simplification has been achieved by the EU-CPR 2011, while only 10% believe that significant simplification has been achieved. Semi-structured interviews with stakeholders – carried out as part of the evaluation – also confirm the perception that the main barrier hampering uptake of articles 5, 37 and 38 is a **lack of clarity around these simplification procedures**: "*More than half of the interviewees point specifically to the articles providing for simplified procedures as being unclear*." (VVA Economics & Policy. et al., 2018a, p. 44). This lack of clarity around the simplification clauses "*could actually make it simpler for the manufacturers concerned to apply the general (non-simplified) rules*." (European Commission, 2019c, p. 27).

Stakeholders consulted as part of this research project also corroborate these findings. Stakeholders representing trade associations and manufacturers point out that derogations and exemptions are rarely used by construction product manufacturers. A lack of **clarity around the simplification procedures** is again cited as the main reason for lack of uptake. Stakeholders point out that the key terms associated with these articles (such as "*custom-made*" or "*non-series process*") lack clear definition. However, stakeholders also say that the **procedures themselves are not clearly defined**. This is particularly relevant to article 37, which invites micro-producers to use different testing methods to those set out in the harmonised standard, but without providing any guidance or specification around the kind of testing which would be permissible. One stakeholder, representing a European trade association, says that this article is a bit like a manufacturer declaring "*I do what I want, then it is up to the market surveillance authorities to accept this or not*". The EU-CPR 2011 also gives no guidance around the Specific Technical Documentation which manufacturers are expected to produce if they pursue this route.

The lack of concreteness underpinning these articles (especially article 37) therefore appears to be putting smaller manufacturers off using them. Furthermore, the fact that the mainstream route – CE marking and assessment against a harmonised standard – is so well known and familiar tends to encourage manufacturers to stick to this route as the one they know best, rather than explore simplification measures which are perceived as more confusing and unclear.

Stakeholders representing trade associations also point out that **smaller manufacturers considering using simplified procedures would not benefit from the support of testing laboratories**, who are able to assist manufacturers in navigating the AVCP system when they choose the mainstream route using harmonised standards. A smaller producer wanting to make use of article 37 would have to interpret both the EU-CPR 2011 requirements and the harmonised standard, and devise their own alternative testing methods, with or without the support of a lab. This imposes a knowledge requirement that most small producers simply do not possess.

Stakeholders representing trade associations also explain that, since the simplification procedures are aimed at smaller producers manufacturing small batches, many of them would likely already be getting their products tested at AVCP level 4 (the lowest level) anyway. In this case, this would limit the benefits to be derived from article 37.

The principal exception to this low uptake is **article 36**, which allows for the sharing or cascading of test results where tests have been carried out for corresponding products, or for assembled systems of components. Evidence from stakeholders and from the literature suggest that **this article is used widely by manufacturers** (and not just SMEs). Evidence from the literature suggests that the cascading and sharing of test results is seen as an **effective way of simplifying demonstration of compliance with the EU-CPR 2011**, as well as a means of effectively **generating cost savings**. (VVA Economics & Policy. et al., 2018a, p. 44; Economisti Associati et al., 2016, p. 46).

The European Commission's 2019 Evaluation of the EU-CPR 2011 concludes: "*The expected simplification effects of Articles 5, 37 and 38 have thus not been achieved. The attempt to 'level the playing field' for smaller companies, particularly through Article 37, has obviously not been successful. In this respect, the CPR has fallen far short of expectations, due to the complexity introduced in the final drafting of the Regulation."* (European Commission, 2019c, p. 27).

5. Impact on construction product users

Construction product users – a definition

In line with our definition of 'UK construction products market and industry', set out in section 1.1 above, 'construction product users' are here defined as **professionals in the built environment sector who make use of construction products either in building design and specification** (i.e. architects, architectural technologists, specifiers, engineers) or **in the construction of buildings** (building contractors).

Our definition precludes users beyond the immediate construction process, or those who interact with construction products only once they have been incorporated into the built environment. This means that those involved in building refurbishment, facilities management and building demolition, as well as building users, are not included in the scope of this project. This also precludes non-professional users of construction products, including 'consumers' and those who use construction products for DIY projects.

5.1. Information Supply

Improving the supply of information about construction products to users and consumers was a major expected outcome of the EU-CPR 2011. In this regard, the EU-CPR 2011 can largely be seen as an information system. The common technical language established through the system of harmonisation was set up to supply reliable and accurate information about construction products so that the users could compare products with respect to their declared performance. The Declaration of Performance and CE marking are the main tools used as part of the EU-CPR 2011 for providing this information.

However, evidence relating to the impact of the CPR on the supply of information about construction products is mixed. In the online survey which fed into the 2018 evaluation supporting study of the CPR – which gathered responses from 103 stakeholders[20] from across 18 Member States – respondents were generally positive about the CPR as an information system. **More than two thirds** (68%) of respondents believe that **product information for end users has increased to some or a large extent due to the EU-CPR 2011**, (while 20% think that it has had no effect and 11% think that there has been some or a large decrease). (VVA Economics & Policy. et al., 2018a, p. 54) However, the online survey appears to have had limited input from organisations representing professional end-users. The survey was completed by 15 Business Representatives, 42 Technical Bodies, 32 Public Authorities and 14 "*other stakeholders*". (VVA Economics & Policy. et al., 2018a, p. 33)

[20] Stakeholders included 'business representatives', technical bodies, public authorities and 14 "other stakeholders".

Similarly, according to the results of the **public consultation,** which formed one of the main evidence gathering tools of the 2018 evaluation supporting study of the EU-CPR 2011,[21] **62% of respondents consider the EU-CPR 2011 to have increased the supply of information about construction products for product end-users**[22] (while 14% considered information supply to have decreased, and 19% seeing no effect). (European Commission, 2018b, p. 16-17) However, results from this public consultation should be treated with caution, as it is not clear what proportion of the respondents were organisations representing professional construction product end-users. The highest proportion of respondents were companies (representing 42% of respondents), followed by organisations representing businesses (37.8%). Technical bodies accounted for 8% and public authorities accounted for 5%. (European Commission, 2018b, p. 3-4)

In addition to the online survey and public consultation, a company phone survey was also carried out as part of the 2018 evaluation supporting study of the EU-CPR 2011. A quarter of the 736 companies that participated in the phone survey represented what are described as "*professional end users*" (12% were architects/consulting engineers; 13% were building contractors).[23] (VVA Economics & Policy. et al., 2018a, p. 33) Results from the company phone survey are somewhat less conclusive than those of the public consultation and online survey, with **51% of respondents indicating that the DoP provides somewhat or considerably improved quality of information to economic operators**; 22% think that the situation is the same as before the introduction of the CPR and 11% think that the information provided in the DoP is not useful (15% don't know). Of the 182 professional end-user organisations that responded, just less than half (49%) believe that the DoP provides somewhat or considerably improved quality and quantitative information to economic operators (18% say the situation is the same as before the CPR; 10% say the information in the DoP is not useful). (VVA Economics & Policy. et al., 2018a, pp. 54-5)

Views expressed by stakeholder organisations representing professional users of construction products, consulted for this research, give a more positive picture about the impact of the EU-CPR 2011 on the supply of information. Several of the 'user organisations' consulted for this research express that the EU-CPR 2011 has had a positive impact in terms of improving supply of information about products. Some stakeholders point out that the EU-CPR 2011 has contributed to the provision of clear, reliable information from manufacturers, which has served to assist specifiers when choosing products for building designs. Other stakeholders note that the CPR has helped to improve the availability of information about a product by helping to standardise the information which manufacturers share about their products.

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[21] In support of the EU-CPR 2011 review supporting study, an open public consultation on EU rules for products used in the construction of buildings and infrastructure was launched in January 2018 and closed in April 2018. The consultation generated 641 responses. The majority of the respondents represented companies (42% of respondents), followed by organisations representing businesses (37.8%, including industry associations, chambers of commerce, professional organisations); Technical bodies accounted for 8% and public authorities accounted for 5%.

[22] The public consultation does not appear to define what is meant by 'end users'. However, the 2018 evaluation supporting study of the EU-CPR 2011, which drew upon the results of the public consultation, conceives of two types of end user: "*Professional end users*" ("*such as construction companies, architects, designers working with construction products in a professional capacity"*) and "*Private end users*" ("*mainly consumers using construction products for DIY*") (VVA Economics & Policy. et al., 2018a, p. 20-1)

[23] 51% of the respondents of the company phone survey were product manufacturers; 13% represented importers and distributors; 11% were raw material suppliers.

One stakeholder organisation, however, points out that the DoP has not, in their view, had a major positive influence on the provision of information to product users, and may in fact '*muddy the waters*' in terms of what users are looking for in a product. This user suggests that it would be more beneficial to have information about the main performance characteristics more readily available. There is a clear suggestion that DoP is not providing this function. However, it is important to bear in mind that this represents the view of only one stakeholder organisation.

5.2. Awareness and understanding of the EU-CPR 2011

Findings from interviews with stakeholder organisations representing product users suggest that, in general, **the level of understanding of the EU-CPR 2011 is quite low amongst professional users of construction products**. This includes professionals involved in building design and specification (architects, architectural technologists, engineers), as well as those involved in building construction (construction contractors). While most professional product users are typically aware of the EU-CPR 2011 – and while some, especially specifiers, make use of certain aspects of the EU-CPR 2011, such as the DoP – it would appear that **the EU-CPR 2011 itself has limited practical relevance to the daily work of most users**. Findings from interviews with users also suggest that many users have limited understanding of how the EU-CPR 2011 functions. This includes a lack of understanding of the range of products covered by the CPR, and the fact that statutory regulation is limited to products with a harmonised standard. Furthermore, while most users are familiar with what the DoP is, some users were unfamiliar with the content of the DoP, including the term 'No Performance Declared'; almost all of the user stakeholders consulted for this research claim to have **limited or no familiarity with the AVCP system**.

One of the reasons for this low level of understanding of the EU-CPR 2011 amongst professional product users is that there is an assumption that construction products available on the market (and bearing the CE mark) are compliant and will perform as the product information says they will. As such, there is a belief among users that there is no need to check the compliance of products against the EU-CPR 2011. This is particularly true of users involved in the construction of buildings. Stakeholder organisations representing construction professionals inform us that building contractors generally trust that the products they are choosing to put into a building, especially those carrying the CE mark, are backed by a robust system of testing and certification, which ensures the products are fit for purpose and require no further testing or checking. For this reason, one stakeholder tells us, building contractors and developers rarely spend time checking the compliance of products being used onsite against product regulations; they assume that the compliance of construction products has been dealt with further up the supply chain. From this evidence, it would appear that many users' engagement with the EU-CPR 2011 (especially construction contractors) consists only of recognising that products carry the CE mark.

While it may be fair to assume that products carrying the CE mark are compliant, the result of this is that **there is often a disconnect between product users** – especially those involved in building construction – **and the EU-CPR 2011**. This lack of familiarity with the regulatory landscape for construction products can create problems at the building construction stage, especially as contractors are often responsible for the products that are ultimately installed in buildings. This can lead to the installation of inappropriate products, or products which do not meet all of the required performance criteria, or to the **substitution of specified products with cheaper alternatives which may fail to match**

the performance characteristics of the original, specified product. Some stakeholders, consulted for this research, point out that contractors will often believe that the substituted product is equivalent to the specified product, but the new product may not meet all of the required performance criteria. This often leads to a performance gap between the original design intention and the building which is actually built.

One stakeholder also emphasises their view, that the low level of understanding of the CPR amongst professional users is **partly due to the lack of communication from OPSS about the EU-CPR 2011 itself**. This stakeholder points out that, unlike other national regulators – such as the Building Safety Regulator, which publishes regular bulletins with updates about regulatory issues – there is an absence of clear messaging from OPSS to the construction industry about the regulation of construction products and the direction of travel regarding the EU-CPR 2011. The result of this is that – in the view of this stakeholder – the construction industry lacks a clear understanding of the regulatory framework for construction products.

5.3. Awareness and understanding of the Declaration of Performance (DoP)

While awareness of the CPR itself is low, **levels of understanding and usage of the DoP seems to vary between different types of users**. Evidence suggests that building specifiers generally have a good understanding of the DoP and make regular use of technical literature provided by the manufacturer, which includes the DoP. Building contractors and those in the engineering sector, however, have less familiarity with the DoP.

Stakeholder evidence suggests that the **technical literature produced by manufacturers is the bread and butter of building specifiers**. Stakeholder organisations representing product users, consulted for this research, state that, in order to write specifications, specifiers are heavily reliant on product literature and technical information produced by manufacturers. This includes test certificates, but also product performance data contained in the DoP. Stakeholders emphasise that specifiers need the performance data to ensure that products meet the necessary performance requirements for the building. For this reason, **specifiers are likely to possess a good working knowledge of the DoP and the performance information it contains**.

However, while specifiers may have a good understanding of the DoP, stakeholder evidence also suggests that the EU-CPR 2011 itself is somewhat less relevant to the day-to-day work of specifiers. One stakeholder explains that, while the EU-CPR 2011 provides an important legal framework and set of tools for architects in carrying out their role as specifiers, most architects would probably have limited awareness that tools such as CE marking derive from the EU-CPR 2011. Another stakeholder informs us that specifiers would rarely make reference to the regulations themselves when drawing up a specification. The only time they would refer explicitly to product regulations would be if they wanted to produce a watertight specification with limited wiggle room for product substitution.

Furthermore, while specifiers may make regular use of the DoP and product literature, stakeholders also point out that there are many limitations associated with the DoP. This includes variability in the level of detail of DoPs supplied by different manufacturers. Stakeholders explain that specifiers need to be able to rely on the completeness and reliability of the product performance data declared by the manufacturers. Often, however, DoPs are limited in their level of detail. Stakeholders describe many DoPs as being "*thin*

on the ground" in terms of detail; they explain that DoPs generally cover only one scenario and observe that manufacturers are increasingly inserting "NPD", especially for certain essential characteristics, such as vapour permeability. These problems limit the availability of important performance data and reduce the overall usefulness of the DoP to building specifiers. Increasingly, specifiers are electing to use alternative sources of technical information, such as product data sheets, which many feel provide more information about a wider range of performance characteristics.

Linked to this, stakeholders also observe that there is an increasing tendency – especially following the Grenfell fire – for architects to have to probe deeper than the performance values declared by the manufacturers on the DoP. This includes having to use performance data to tease out where products can and cannot be used; it also often includes having to request and interpret testing data, in order to understand if the product's declared performance will meet the requirements of the building. Stakeholders express that specifiers should be able to rely on the robustness of the data contained in the DoP without having to probe for further information and interpret testing data. For this reason, many specifiers choose to use third-party certifications as a first port of call when specifying, to provide assurance that products meet required performance criteria.

It is also important to consider that specifiers also rely heavily on their own knowledge of construction products – or the knowledge accumulated in their practice – which is built up through experience. One stakeholder mentions that many practices keep databases about products which they commonly use when writing specifications.

Evidence from stakeholders suggests that **construction product users in the engineering sector are likely to have less familiarity with the DoP**. Stakeholder evidence reveals that engineers responsible for designing building structures rarely specify actual products. Instead, they specify the performance requirements which products must meet. For structural engineers, this relates to structural components and products and usually includes the loading or durability. For fire engineers, this relates to fire resistance of products (e.g., specification that a product must be fire resistant for 60 minutes). However, in most cases, engineers will not get involved in product specifics; they will instead rely on a contractor or supplier to find an actual product which meets the specified performance criteria. Stakeholders inform us that, in some cases, design teams within structural engineering practices would work closely with a contractor who would specify which products should be put on the design drawings. This is particularly common in residential design, where the housebuilder typically tells the design team which products to specify. As such, **engineers have little discretion over the actual products that are specified**. This means that, according to stakeholder evidence, most engineers are likely to have less familiarity with the DoP, and the information it contains, compared to specifiers.

The results of a recent survey of building contractors in Poland show that construction contractors generally understand what the DoP is and what its purpose is. The survey shows that over 90% of contractors in Poland understand that the DoP is a mandatory document that must be issued by the manufacturer when bringing a construction product, covered by a harmonised standard, to the single market (Michalak, Michałowski, 2021).

However, while building contractors may understand what the DoP is, recent evidence suggests that professionals in the construction industry are perhaps less likely to use the DoP as a source of technical information. This can be seen in the results of the European Commission's **2018 survey on the information needs of construction product users,** which captured the views of 2,000 "*European construction contractors and construction*

services professionals".[24] (Ecorys, 2018, p. 8) Respondents were asked about the type of technical information they typically need when using construction products (or product groups). The most common answer to this question was 'Intended use of the product' (50%), followed by 'Mechanical strength' (48%) and 'Behaviour in fire' (40%). When asked about the data sources used to obtain this information, 77% answered that they use the 'Product Data Sheet', and 53% replied that they use "*product information supplied on the product or accompanying the product (e.g. Declaration of performance or CE marking)*" (Ecorys, 2018, pp. 36, 40) **The DoP is therefore the second-most widely used source of technical information, after the product data sheet, used by just over half of surveyed European construction sector professionals**. When asked about their preferred sources of technical information, similar proportions of respondents answered "*Product information accompanying a Declaration of Performance/CE marking: on the website of the manufacturer or supplier*" (53%) and "*Product data sheet provided by the manufacturer of supplier*". (52%) (Ecorys, 2018, p. 65). Thus, while the DoP is clearly considered useful to construction contractors and professionals in the built environment sector, it would appear that product data sheets are considered to be just as valuable.

5.4. Awareness and Understanding of CE marking

Evidence from both the literature review and stakeholder interviews suggests that **there remains confusion amongst industry stakeholders around the meaning of CE marking**.

Much of the confusion around CE marking owes itself to the fact that CE marking under the CPR differs from how it is covered in other pieces of EU legislation. Under the EU-CPR 2011, the CE marking on a construction product does not attest that the product satisfies any specific product requirements, as the EU-CPR 2011 does not set any product requirements. This is contrary to most other CE-marked products under the "new legislative framework". Under the EU-CPR 2011, the CE marking only proves that the product performance has been assessed as required by existing harmonised technical specifications; it does not show that a product actually meets any specific requirements (European Commission, 2019c, pp. 25-6).

Confusion over the meaning of CE marking first surfaced under the CPD. The CE mark, as it was used under the CPD, was often perceived by construction industry stakeholders as a safety or quality mark, rather than an indication that a product's performance has been assessed (Wall, 2021, p. 7). This was due, in part, to the fact that the content of the CE marking was not defined precisely within the CPD, but also to the fact CE marking was not mandatory in all member states. This put the CE mark in a weak position in relation to national marks, meaning that the CE mark was not accepted universally, either by regulatory authorities in Member States or by construction products end users, who often continued to use national marks which enjoyed broader acceptance in the domestic market (RPA, 2007, pp. 16-7).

It was anticipated that the replacement of the CPD with the EU-CPR 2011 would help to strengthen the legitimacy of the CE marking and improve industry understandings. This is because, under the EU-CPR 2011, CE marking was made compulsory for products covered by a harmonised standard, while mandatory national marks were made illegal.

[24] Respondents were targeted from the following sectors: Construction and renovation; Installation services: Architectural and engineering services.

This position was also reinforced in court cases involving the Member States which imposed additional national requirements on construction products covered by a harmonised standard (see section 3.4.2 above). The European Commission also sought to improve manufacturers' understandings of CE marking through the publication of information and industry-focused guidance to clarify and help interpretation and application of the CE marking, including a webpage of Frequently Asked Questions (European Commission, n. d.a), an information campaign on CE marking, and a brochure with a step-by-step guide to CE marking in all official EU languages (European Commission, 2015).

However, despite these efforts, evidence suggests that **confusion around the meaning of the CE mark still exists presently**. Findings from the public consultation, carried out as part of the EU's 2018 evaluation supporting study of the EU-CPR 2011, reveal that, while CE marking of construction products is well known (99% of the respondents indicate that they know the CE symbol), respondents tended to attribute additional meanings to CE marking under the CPR, suggesting broad misunderstandings of what the CE mark stands for. While 95% of respondents understood that CE marking signifies that a "*construction product has been assessed as to its performance in accordance with a harmonised European standard or a European Assessment Document"*, **just under a fifth of respondents (18.1%) also thought that the CE marking means that the product is safe.** Furthermore, 11.5% of respondents also thought that the CE mark means that the product complies with applicable local, regional or national building requirements (European Commission, 2018b, pp. 7-8). Thus, what the findings from this public consultation show is that users still continue to misunderstand the CE marking on construction products, often perceiving it to be a safety mark.

This finding is supported by information from interviews with stakeholders representing product users. When asked what they consider the CE mark to represent, several of the stakeholders consulted for this research express that the CE mark signifies that a product is safe, or that it meets a certain quality standard. Other stakeholders describe that, in their view, there is a general lack of understanding of the CE mark in the wider construction industry, with many viewing it as a quality mark or an accreditation that a product is safe. **There is, therefore, a continuing tendency reported by stakeholders for professional construction product users to misunderstand the CE mark and confuse it with a quality or safety mark**. This contributes to the sense of a disconnect between product users and the CPR, with many users failing to recognise that the CE mark represents a statement that a product has been assessed against a harmonised standard.

While users may misunderstand what the CE mark is, evidence from stakeholders also reveals that professional users place considerable trust in the CE mark. The main reason for this is that the CE mark carries considerable confidence in the construction industry.

6. Impact on testing laboratories

6.1. Legal clarity on the role of Notified Bodies under the CPR

As noted above, Notified Bodies (or Approved Bodies, as they are known in the UK) play an important role in the regulation of construction products by carrying out the third-party testing and certification tasks as part of the Assessment and Verification of Constancy of Performance (AVCP). Evidence suggests that the EU-CPR 2011 has helped to enhance the legal clarity on the role of Notified Bodies in carrying out their functions under the EU-CPR 2011. However, evidence gathered suggests there remain areas where the EU-CPR 2011 continues to lack clarity in relation to the role of Notified Bodies.

One of the main issues associated with the CPD – identified in the 2008 Impact Assessment – was that the procedures for the Attestation of Conformity were not always precise in terms of specifying the level of involvement of Notified Bodies. This has led to manufacturers submitting their products to more testing than was necessary under the CPD. This has been the case in instances when only one performance characteristic was noted as requiring the involvement of a Notified Body, but the extent to which this Notified Body must be involved in assessing other characteristics is not clearly set out. (European Commission, 2008b, p. 9)

According to evidence gathered as part of RPA's 2015 Implementation Study, the EU-CPR 2011 has gone some way towards enhancing the role and legal clarity of Notified Bodies. The study found that 60% of organisations involved in conformity assessments (Notified Bodies, Technical Assessment Bodies), and 57% of public authorities, considered the EU-CPR 2011 to have **increased the legal clarity and transparency regarding the rules governing the involvement of Notified Bodies**. Similar proportions of respondents (62% of organisations involved in conformity assessments; 49% of public authorities) also believed that the CPR has had a positive effect in terms of **ensuring that Notified Bodies have the necessary competence for carrying out their tasks**. It was felt that article 43 of the CPR sets out clearly the requirements for Notified Bodies, which has in turn enhanced the credibility of the legislative framework and ensured that all Notified Body are of a comparable standard. In particular, article 43(6) of the EU-CPR 2011 sets out the capabilities for Notified Bodies in relation to each system of AVCP, while article 43(7) clearly stipulates the requirements for personnel carrying out activities in relation to which the body has been notified. (RPA, 2015, pp. 101-2).

Article 43(6) and 43(7) of EU-CPR 2011: *Requirements for Notified Bodies*

6. A notified body shall be capable of carrying out all the third party tasks in the process of assessment and verification of constancy of performance assigned to it in accordance with Annex V in relation to which it has been notified, whether those tasks are carried out by the notified body itself or on its behalf and under its responsibility.

At all times and for each system of assessment and verification of constancy of performance and for each kind or category of construction products, essential characteristics and tasks in relation to which it has been notified, the notified body shall have the following at its disposal:

a) the necessary personnel with technical knowledge and sufficient and appropriate experience to perform the third party tasks in the process of assessment and verification of constancy of performance;

b) the necessary description of procedures according to which the assessment of performance is carried out, ensuring the transparency and the ability of reproduction of these procedures; it shall have appropriate policies and procedures in place that distinguish between the tasks it carries out as a notified body and other activities;

c) the necessary procedures to perform its activities which take due account of the size of an undertaking, the sector in which it operates, its structure, the degree of complexity of the product technology in question and the mass or serial nature of the production process.

A notified body shall have the means necessary to perform the technical and administrative tasks connected with the activities for which it is notified in an appropriate manner and shall have access to all necessary equipment or facilities.

7. The personnel responsible for carrying out the activities in relation to which the body has been notified, shall have the following:

a) sound technical and vocational training covering all the third party tasks in the process of assessment and verification of constancy of performance within the relevant scope for which the body has been notified;

b) satisfactory knowledge of the requirements of the assessments and verifications they carry out and adequate authority to carry out such operations;

c) appropriate knowledge and understanding of the applicable harmonised standards and of the relevant provisions of the Regulation;

d) the ability required to draw up the certificates, records and reports to demonstrate that the assessments and the verifications have been carried out.

Interestingly, RPA's study found that **comparatively fewer manufacturers considered the EU-CPR 2011 to have improved the legal clarity of the role of Notified Bodies**. Around half of companies involved in the manufacture of construction products indicated that there has been no effect in terms of increasing legal certainty around the rules of Notified Body involvement, or in ensuring that Notified Bodies have the necessary competence to carry out their tasks. The RPA study suggests that "*this is possibly a result of there being no changes to the functions of notified bodies from their perspective or low awareness of the requirements under the CPR*." (RPA, 2015, pp. 101-2).

The RPA study also noted that the **practices of Notified Bodies could vary considerably between Member States**, which has had the "*effect of distorting competition*". (RPA, 2015, p. 160). Variability in the practices of Notified Bodies risks creating a non-uniform testing market, which in turn introduces the risk of manufacturers "shopping around" by going to multiple Notified Bodies for a more desirable test result.

The differences in practices between Notified Bodies has been attributed in part to **imprecise wording used in article 46** (facilities outside the testing laboratory of the notified body) and **article 52(2)** (operational obligations for notified bodies). For instance, it

is reported that vague wording used in article 52(2) has led to variations in the quality of audits undertaken on Notified Bodies (RPA, 2015, p. 160).

Article 46 of EU-CPR 2011: *Use of facilities outside the testing laboratory of the notified body*

1. On request of the manufacturer and where justified by technical, economic or logistic reasons, notified bodies may decide to carry out the tests referred to in Annex V, for the systems of assessment and verification of constancy of performance 1+, 1 and 3 or have such tests carried out under their supervision, either in the manufacturing plants using the test equipments of the internal laboratory of the manufacturer or, with the prior consent of the manufacturer, in an external laboratory, using the test equipments of that laboratory. Notified bodies carrying out such tests shall be specifically designated as competent to work away from their own accredited test facilities.

2. Before carrying out those tests, the notified body shall verify whether the requirements of the test method are satisfied and shall evaluate whether:

a) test equipment has an appropriate calibration system and the traceability of the measurements is guaranteed;

b) the quality of the test results is ensured.

Article 52(2) of EU-CPR 2011 *Operational obligations for notified bodies*

2. Assessments and verifications of constancy of performance shall be carried out with transparency as regards the manufacturer, and in a proportionate manner, avoiding an unnecessary burden for economic operators. The notified bodies shall perform their activities taking due account of the size of the undertaking, the sector in which the undertaking operates, its structure, the degree of complexity of the product technology in question and the mass or serial nature of the production process. In so doing, the notified bodies shall nevertheless respect the degree of rigour required for the product by this Regulation and the part played by the product for the fulfilment of all basic requirements for construction works.

Differences in the practices of Notified Bodies have also been reported by stakeholders involved in testing and certification consulted for this research. One stakeholder explains that Notified Bodies charged with carrying out type 3 assessments for the AVCP often have different expectations around submissions of drawings, with some testing bodies expecting drawings as part of the test, while others charge extra for drawings. The stakeholder also says that there is variability in the thoroughness of test reports created by different testing houses.

The EU-CPR 2011 states that the manufacturer is responsible for identifying the product type for any product they intend to bring to the market. However, Annex V of the EU-CPR 2011 – which sets out the requirements of the AVCP – originally stated the Notified Body should carry out the "*determination of the product type on the basis of type testing*", for products assessed at AVCP levels 1+, 1 and 3. This initially created confusion around who was responsible for determining the product type. This confusion was, however, resolved by **Commission Delegated Regulation (EU) No 568/2014** (European Commission, 2014a), **which set out more clearly the division of responsibilities between the manufacturer and the Notified Body by removing any reference to Notified Bodies**

being responsible for 'determination of the product type'. This amendment has helped to clarify the roles and responsibilities of both Notified Bodies and manufacturers when assessing product performance: according to the European Commission's 2016 Implementation Report, this amendment increased the legal certainty and clarified the degree of involvement and the role of Notified Bodies in assessing and verifying constancy of performance of construction products. The report also claims that Notified Bodies now better understand their responsibilities (European Commission, 2016a, pp. 8-9).

Stakeholders consulted for RPA's 2015 Implementation Study have also noted that the process through which regulatory authorities may challenge the competence of a Notified Body (article 51 of the EU-CPR 2011) is protracted. It was noted by one regulatory authority that it could take so long for the Commission to review such cases that "*the notified body concerned can expect virtually no consequences, even in the case of serious infringements*." (RPA, 2015, p. 160).

6.2. Restrictions around subcontracting of testing tasks

One of the greatest challenges for Notified Bodies under the EU-CPR 2011 are **restrictions imposed by the EU-CPR 2011 on the subcontracting of testing tasks** as part of the Assessment and Verification of Constancy of Performance (AVCP) process. Restrictions around the subcontracting of testing tasks were designed for quality assurance purposes, to prevent Notified Bodies from outsourcing testing tasks which they could not undertake themselves. However, these restrictions also limit the ability of Notified Bodies to build testing capacity, meaning that the market for testing certain products (or certain essential characteristics of products at specific levels of the AVCP) tends to be concentrated.

Article 45 of the EU-CPR 2011 allows Notified Bodies to subcontract testing tasks in the process of carrying out the AVCP.

Article 45 of EU-CPR 2011 (Subsidiaries and subcontractors of notified bodies):

1. Where a notified body subcontracts specific tasks connected with the third party tasks in the process of assessment and verification of constancy of performance or has recourse to a subsidiary, it shall ensure that the subcontractor or the subsidiary meets the requirements set out in Article 43, and shall inform the notifying authority accordingly.

2. The notified body shall take full responsibility for the tasks performed by subcontractors or subsidiaries wherever these are established.

3. Activities may be subcontracted or carried out by a subsidiary only with the agreement of the client.

4. The notified body shall keep at the disposal of the notifying authority the relevant documents concerning the assessment of the qualifications of any subcontractor or the subsidiary and the tasks carried out by such parties under Annex V.

However, subcontracting is limited to tasks for which the Notified Body itself is accredited. This limitation is created by article 43.6 of the CPR, which states that "*A notified body shall be capable of carrying out all the third party tasks in the process of assessment and verification of constancy of performance assigned to it in accordance with Annex V in*

relation to which it has been notified, whether those tasks are carried out by the notified body itself or on its behalf and under its responsibility."

In other words, a Notified Body cannot subcontract testing tasks which it is not itself accredited to perform.

While these restrictions around subcontracting were intended to uphold quality assurance in the testing of products, stakeholders in the testing and certification sector consulted for this research point out that these restrictions create challenges for Approved Bodies in the UK. These limitations impose constraints on capacity by preventing Approved Bodies from subcontracting additional expertise for tests which it does not possess competence.

6.3. Access to European knowledge networks and guidance documents

In order to support the complex AVCP process, a sizeable infrastructure has developed in Europe around the network of Notified Bodies. Article 55 of the EU-CPR 2011 obliges Notified Bodies to set up a "Group of Notified Bodies" (GNB) to ensure coordination and cooperation between the Notified Bodies and encourage a consistent, uniform application of the rules around testing and certification. (European Commission, 2016a, p. 8). All Notified Bodies operating across EU Member States are required to participate in the activities of the GNB.

> **Article 55 of EU-CPR 2011** (Coordination of notified bodies):
>
> The Commission shall ensure that appropriate coordination and cooperation between bodies notified pursuant to Article 39 are put into place and properly operated in the form of a group of notified bodies.
>
> Member States shall ensure that the bodies notified by them participate in the work of that group, directly or by means of designated representatives, or shall ensure that the representatives of notified bodies are informed thereof.

One of the most important outputs of the GNB is a series of guidance documents and position papers which the Notified Bodies are expected to follow and apply. These documents "*represent shared learning and provide guidance as to how particular issues arising in the implementation of the Regulations should be handled*." They act as an "*invaluable resource that contributes to consistent practice across all conformity assessment activities and provides clarity where the CPR itself may be open to interpretation, sometimes on highly technical issues*." (Morrell and Day, 2023, p. 46)

Although the documents created by the GNB cannot supersede the EU-CPR 2011, and while they may be called 'guidance documents', Notified Bodies are expected to follow this guidance and failure to do so could lead to a loss of accreditation: "*To all practical purposes, therefore, the guidance was (and therefore presumably still is) mandatory*." (Morrell and Day, 2023, p. 47).

However, one of the consequences of the UK's departure from the EU appears to be that Approved Bodies operating in Great Britain no longer have access to the collaborative networks of EU Notified Bodies. While GB Approved Bodies can still access all existing Harmonised Standards – since the British Standards Institution (BSI) remains a member of both CEN and CENELEC is therefore obliged to adopt all European Harmonised Standards as British Designated Standards – GB Approved Bodies are no

longer represented at any of the GNB committee meetings and they no longer input into the GNB's deliberations about standards and approaches to testing. (Morrell and Day, 2023, p. 47).

The fact that GB Approved Bodies are no longer involved in the GNB means that UK Approved Bodies may no longer be able to access the most recent shared knowledge or documentary outputs of the European Notified Bodies. UK Approved Bodies can no longer access the database through which the Notified Bodies circulate minutes of meetings, publish draft and agreed guidance notes and share the results of inter-laboratory comparisons. (Morrell and Day, 2023, p. 47). While it would appear that UK Approved Bodies can still access existing, pre-Brexit guidance documents and position papers produced by the GNB,[25] it is unclear whether or not UK Approved Bodies will be able to access guidance documents produced by the GNB post-Brexit or in the future. Evidence provided by stakeholders in the testing and certification space reveals a somewhat mixed picture: some UK Approved Bodies and testing laboratories have experienced minimal disruption to the supply of information from European colleagues; other GB Approved Bodies, however, report difficulties getting hold of position papers and guidance documents which used to be circulated by the GNB.

Similarly, discussions with stakeholders involved in product testing reveal that UK Technical Assessment Bodies (TABs) are also no longer involved in the European Organisation for Technical Assessment (EOTA), which has created difficulties for UK TABs in accessing European Assessment Documents (EADs). Findings from stakeholders involved in testing and certification confirm that pre-Brexit EADs can be used in the UK. The same process is not available for EADs published after Brexit.

The exclusion of UK Approved Bodies and TABs from these important European collaborative networks means that testing and certification bodies in Great Britain lack access to knowledge and documents which play an important role in ensuring best practice around testing and certification of products. Stakeholders in the testing infrastructure, consulted for this research, also point out that this may lead to a decline in skills and expertise in the UK testing sector.

Evidence also suggests that attempts by the UK Government to set up an equivalent UK infrastructure to facilitate the sharing of knowledge and the drafting of guidance documents for UK Approved Bodies have so far amounted to very little.

[25] DLUHC (now MHCLG) advised GB Approved Bodies that existing guidance notes should continue to be followed. One of the recommendations of the Independent Review of Construction Testing is that guidance notes issued up until the UK's withdrawal from the EU should be formally adopted by the Government as guidance which Approved Bodies are required to follow. (Morrell and Day, 2023, p. 115).

7. Proposed changes to the current regulatory regime

This chapter addresses Aim 2 and focuses on the European Commission's main proposed changes to the EU-CPR 2011, as well as what the potential impacts of these changes might be for regulators, testing laboratories and manufacturers.

The first section summarises the European Commission's main proposed changes to the EU-CPR 2011. The second section explores what is currently known about the potential impacts of such changes.

7.1. The EU's changes to the EU-CPR 2011

On 30th March 2022, the European Commission published a Proposal (from now on referred to as the '**Proposal**') which set out a series of key changes to be made to the existing regulatory framework for construction products (European Commission, 2022b).

After prolonged negotiations with various actors including the European Parliament, an updated version of the Proposal (the '**Compromise Text**') was issued in February 2024. (Council of the EU, 2024b). This Compromise Text was approved by EU Member States and was adopted by the European Parliament in the plenary session which took place on 10th April 2024 (Doleschal and Matthieu, 2024, p. 2). The Compromise Text was formally adopted and published as Regulation (EU) 2024/3011 (EU-CPR 2024) in December 2024 (European Commission, 2024).

This section sets out the EU's changes to the EU-CPR 2011 by taking both the original Proposal and the Compromise Text into account. It also considers the feedback on the Proposal by the Parliament, manufacturers, business associations, and other groups and individuals involved in the construction industry at large. The intention here is to provide a narrative of change that tracks the thinking process and lays bare the changes made along the way, but also to outline how the negotiation process which resulted in the Compromise Text highlights political priorities that can be important indicators for the expected impact of the EU-CPR 2024.

The main objective of the European Commission's proposed revision of the EU-CPR 2011 is to address the issues outlined above (in section 3). Specifically, the proposed revision seeks to improve the functioning of the single market for construction products by addressing the issues around the system of standardisation, based on harmonised standards, and supporting the free movement of construction products within the single market.

Beyond this focus on making the single market 'work', the Commission's proposal for the revised regulation also includes a specific focus on environmental sustainability, a green transition for manufacturing processes, digital transition of the construction ecosystem, improving sustainability of the built environment, and the reuse and recycling of natural resources used in construction industry products (Kennedys, 2022). This would bring revised regulations in line with the EU's broader policies such as the European Green Deal (European Commission, 2019a), the Circular Economy Action Plan (European Commission, 2019b), and the new Ecodesign for Sustainable Products Regulation (European Commission, 2022e), which was provisionally agreed in December 2023 and

sets a new benchmark in areas such as product durability, reusability, energy efficiency, recycled content, and carbon footprints. (Tenhunen, 2022, pp. 2, 9)

Overall, most changes will therefore fall into two broad categories:

- boosting environmental regulations including sustainability, and;
- increasing the functioning of the single market

7.1.1. New environmental obligations for manufacturers

The environmental agenda sets the tone of the proposed regulation from Article 1 onwards.

In the Proposal, Article 22 introduced a series of environmental measures which were then either removed in the Compromise Text or amalgamated with other articles. For example, the Proposal established a number of **environmental obligations for manufacturers** which included, amongst others, the following responsibilities:

- to provide packaging for the product that fulfils the highest current environmental sustainability standards;
- to give preference to recyclable materials;
- to use materials that ensure that the average durability of the product in the respective category is reached;
- to design products that can be easily repaired and refurbished;
- to make sure that spare parts are available and can be procured with reasonably short delivery times;
- to design products that make it possible for the product to be reused and recycled;
- to accept re-ownership of products that were not sold on the market.

Article 22 also reserved further powers for the Commission to specify any environmental obligations, either through a delegated act or through a standardisation request, and to issue delegated acts for establishing environmental sustainability labelling requirements, including ‘traffic-light-labelling’ assessing the manufacturer’s products against environmental obligations, environmental performance classes, and product-inherent environmental requirements, as specified in the Proposal. (European Commission, 2022b, art. 22 para. 5).

In the Compromise Text, **Article 22 and most of its obligations were deleted**, although the deleted elements are still to be considered by the Commission for future assessment. (Council of the EU, 2024b, p. 5)

Some elements of Article 22 were, however, retained in the Compromise Text. Specifically, the **requirement for manufacturers to assess the environmental characteristics and sustainability of their products was retained**. In the Proposal, Article 22 states that “*the manufacturer shall assess the environmental characteristics of the product in accordance with harmonised technical specifications*”. Annex 1 of the Proposal then contains a list of essential characteristics related to life cycle assessment, including a mandatory check on climate change effects. Annex 1 also states that harmonised technical specifications should “*to the extent possible*” cover these essential characteristics related to life cycle assessments. (European Commission, 2022b, Annex I Part A point 2; art. 22, para. 1).

These environmental requirements have been retained in the Compromise Text. Article 11 of the Compromise Text stipulates that **manufacturers should assess their "*product's environmental sustainability performance over its life cycle***" in respect of certain "***predetermined environmental essential characteristics***" listed in Annex I.2. This assessment should also cover "*the packaging used or most likely to be used and be calculated using the latest version of the software made freely available on the website of the European Commission*". (Council of the EU, 2024b, art. 11, para. 2) The full list of the "predetermined environmental essential characteristics" is included below:

Compromise Text – Annex I.2: Predetermined Environmental Essential Characteristics

Harmonised technical specifications and European assessment documents shall cover the following list of predetermined environmental essential characteristics related to the life cycle assessment of a product:

a) climate change effects – total; (aa) climate change effects – fossil fuels; (ab) climate change effects – biogenic; (ac) climate change effects – land use and land use change;
b) ozone depletion;
c) acidification potential;
d) eutrophication aquatic freshwater;
e) eutrophication aquatic marine;
f) eutrophication terrestrial;
g) photochemical ozone;
h) abiotic depletion – minerals, metals
i) abiotic depletion – fossil fuels;
j) water use;
k) particulate matter;
l) ionizing radiation, human health;
m) eco-toxicity, freshwater;
n) human toxicity, cancer;
o) human toxicity, non-cancer;
p) land use related impacts.

Harmonised technical specifications shall also cover to the extent possible the predetermined environmental essential characteristic of capability to temporarily bind carbon and of other carbon removals.

As in the Proposal, the Compromise Text also states that harmonised technical specifications should henceforth cover the list of predetermined environmental essential characteristics. However, the Compromise Text also extends this requirement to EADs. (Council of the EU, 2024b Annex I.2) Both "essential characteristics" and "predetermined environmental essential characteristics" form the basis for standardisation requests under Article 4(2) and the implementing acts referred to in Article 4a(1) (Council of the EU, 2024b, art. 3.1, para. 1)

Equally, and harking back to Article 22 in the Proposal, the Compromise Text added a specific provision ensuring the availability of spare parts that might, under market conditions, not commonly be available. Article 21 of the Compromise Text empowers the Commission, using delegated acts, to specify for certain product families and categories "*an obligation applicable to manufactures*" to make available specific spare parts for their products. (Council of the EU, 2024b, art. 21, para. 7a) Manufacturers bound by this obligation "*shall offer the spare parts with reasonably short delivery time, at a reasonable and non-discriminatory price and inform about this availability*" to ensure that products can indeed be repaired and support overall sustainability. (Council of the EU, 2024b, art. 21, para. 7a)

The Compromise Text also widens the scope of green public procurement and removes a ban on applying green public procurement provision to the procurement of building and infrastructure construction works (Council of the EU, 2024b, p. 7, art. 84). The Commission would be able to issue delegated acts for minimum environmental sustainability requirements that contracting authorities and entities are obliged to follow (Council of the EU, 2024b, p. 7, 2024b, art. 84, paras. -1-1).

7.1.2. The introduction of environmental, functional, and safety product requirements for construction products

The Proposal also set certain **environmental, functional, and safety requirements for construction products**. This stands in contrast to the EU-CPR 2011, which does not define any specific product requirements, but instead limits itself only to defining the Basic Requirements for Construction Works (BWRs). The Proposal introduced requirements ensuring the appropriate functioning and performance of products (European Commission, 2022b, Annex I Part B), as well as inherent product safety and environmental requirements (European Commission, 2022b, Annex I Part C), and product information requirements (European Commission, 2022b, Annex I Part D), **These requirements have been retained in the Compromise Text**, in slightly altered form, in annexes I.3 and I.4. (Council of the EU, 2024b, Annex I.3-I.4). **A full list of these new requirements, as per the Compromise Text, is included in Appendix 2 of this Report**.

The Proposal also intended to give the Commission the power to use delegated acts to amend Annex I Part B, C, and D "*in order to adapt it to technical progress and in particular to cover new risks and environmental aspects*" (European Commission, 2022b, art. 5 para. 3). However, this provision was removed in the Compromise Text (Council of the EU, 2024b, art. 5).

7.1.3. Introduction of a Declaration of Performance and Conformity

The Commission's original Proposal stipulated that **manufacturers will have to provide a Declaration of Conformity** (DoC) that evidences a product's compliance with its environmental, functional and safety requirements. **This would have to be included on top of the already existing Declaration of Performance** (DoP) (European Commission, 2022b, arts. 13–14).

The Compromise Text, however, **amalgamates provisions for both the DoP and the DoC, into a single document**: **The Declaration of Performance and Conformity**. Article 9 of the Compromise Text states that "*the manufacturer shall undergo the applicable assessment and verification system set out in Annex V and draw up a declaration of performance and conformity before such a product is placed on the market*",

where such products are covered by a harmonised technical specification. (Council of the EU, 2024b, art. 9). The purpose of this Declaration of Performance and Conformity is to enable manufacturers to demonstrate conformity against mandatory environmental, functional and safety requirements at the same time as declaring the performance of their product, in one single document.

7.1.4. Introduction of a Construction Digital Product Passport

The Proposal also emphasised the need to make "*maximum use*" of digitalisation, especially since the EU-CPR 2011does not provide for the use of digital tools (European Commission, 2022b, p. 11). Thus, all information and documentation that comes with EU-CPR 2024 may be processed digitally, e.g. in the form of a new Digital Product Passport, as well as stored and shared using a digital information system. Beyond a decrease in administrative burdens, this approach promises to increase transparency along supply chains, and therefore make market surveillance operations easier to perform (European Commission, 2022b, p. 11).

Under Chapter IXa, the Compromise Text now outlines in detail the provisions for the Digital Product Passport, providing digital access to, e.g., the Declaration of Performance and Conformity, as well as general information, instructions for use, and safety information (Council of the EU, 2024b, art. 81b).

7.1.5. New powers for the Commission to adopt technical specifications for cases where the standardisation system is not delivering on time and of sufficient quality

Article 4 of the Proposal enabled the European Commission to establish "*voluntary or mandatory essential characteristics and their assessment methods*" for specific product families and categories on the basis of a delegated act (European Commission, 2022b, art. 4, para. 3). In the Compromise Text, this empowerment was largely reversed.

The primary intention of Article 4 in the Proposal was to contribute to the Single Market's internal functioning by reducing the harmonised standards backlog and lack of citations in the OJEU. Other circumstances in which a delegated act could have been issued included:

- urgent situations where adaptation of more harmonised technical specifications would have been necessary;
- when one or more essential characteristics of basic work requirements would not have been covered by already published standards;
- in situations where, for other reasons, harmonised standards would not have been sufficient to cover the regulatory needs of both EU Member States and economic operators;
- for cases where standards would not have been in line with the EU's climate and environment legislations and targets.

However, even if such delegated acts would not have been used outside of a limited number of specific cases – limiting delegated acts, inter alia, to scenarios involving "*undue delays*" caused by the European standardisation organisation – Article 4 would still have allowed the Commission to circumvent the main route for creating harmonised standards (European Commission, 2022b, art. 4, para. 3).

The Compromise Text retains provisions for the Commission to use implementing acts to adopt harmonised specifications. However, and crucially, the sweeping provisions of the original proposal are now cut back to a single fall-back route (Council of the EU, 2024b, p. 4). The Commission will now be able to use implementing acts for "*laying down essential characteristics, their assessment methods and technical details pursuant to Article 4 for one or more product families or for one or more product categories within a family*" (Council of the EU, 2024b, art. 4a para. 1). This comes with a condition: **an implementing act can only be issued in cases where the Commission has explicitly asked one or more European Standardisation Organisations to draft a harmonised standard and the request has subsequently either been rejected, or not properly implemented, or not been delivered three years after the request was accepted by the standardisation organisation** (Council of the EU, 2024b, art. 4a para. 1).

The compromise Text therefore emphasises that the main route via CEN-CENELEC, i.e. the development of harmonised standards, should still be the preferred option for making the Single Market work: "*priority shall be given to the elaboration of standards*" (Council of the EU, 2024b, art. 4a para. 1).

7.1.6. Establishment of a 'harmonised zone' to clarify the roles of the EU and EU Member States

The proposal also introduced the concept of a 'harmonised zone' emphasising the area of law absolutely regulated by the European Union in contrast to areas regulated by EU Member State law (European Commission, 2022b, art. 7). The persistence of national marks within the single market is one of the reasons why a full and coherent single market has not yet been achieved (European Commission, 2022b, p. 2). Member States are called upon to "*respect the harmonised zone in their national law*" and not to set "*additional requirements for products*" (European Commission, 2022b, art. 7 para. 2). No other requirements, assessments, or additional administrative actions must be declared compulsory beyond specific exceptions on the grounds of health, safety, and environmental concerns, which need to be communicated to the Commission by the respective Member States (European Commission, 2022b, art. 7 para. 4).

The Compromise Text elaborates on the prohibition of national requirements: *"Member States shall respect the harmonised zone in their national laws, regulations or administrative measures and shall not prohibit or impede the making available of products covered by it when they are in compliance with this Regulation. Member States shall not lay down essential characteristics and their assessment methods or inherent product requirements other than those set out in the harmonised technical specifications"* (Council of the EU, 2024b, art. 7 para. 2).

As a compensation, an exception clause was added, allowing Member States to specify "*national requirements*" for characteristics not regulated in the harmonised technical specifications (Council of the EU, 2024b, p. 6).

Furthermore, the Proposal specified that the Commission would establish and maintain an "*information and communication system*" for the purpose of the "*collection, processing and storage of information […] on issues relating to the interpretation or application of the rules laid down in or pursuant to this Regulation*". This is to ensure a "*harmonised application of the CPR provisions*" (European Commission, 2022b, art. 77 para. 1). For this purpose, Member States will have to establish a "*national information system or email list service*" to communicate matters of correct interpretation and application of the rules to national

authorities and economic operators working within their purview (European Commission, 2022b, art. 77 para. 5). This scheme can also be found in the Compromise Text (Council of the EU, 2024b, art. 77).

7.1.7. Strengthen enforcement and market surveillance

Another aspect that has contributed to the inconsistency of the current single market for construction products is the lack of market surveillance (see section 3.2).

The Proposal aimed to strengthen the single market by boosting provisions for those surveillance mechanisms that ensure the regulation is adhered to on the ground. Via a delegated act, the Commission would have been able to stipulate the minimum number of checks conducted by national market surveillance authorities working with harmonised products, specify the nature of the checks required and methods used, and determine the minimum number of human resources assigned to surveillance activities (European Commission, 2022b, art. 73).

The market surveillance role of the Commission is therefore less heavy-handed in the Compromise text when compared to the Proposal. The focus is less on stipulating obligations, but rather on encouraging and supporting best practice.

The Proposal also included a provision for the Commission to set up a complaint portal which would allow "*any natural or legal person to share complaints or reports related to possible non-compliance*" (European Commission, 2022b, art. 68 para. 1). This idea was followed up in the Compromise Text (Council of the EU, 2024b, art. 68). The complaints portal is meant to be *"established and maintained by the Commission"*, adding to the Commission's role in market surveillance (Council of the EU, 2024b, p. 53). At the same time, the Commission is advised to prioritise complaints that have especially far-reaching negative implications for EU citizens or the international market. The Commission will have to reply to a complainant and transfer the issue at hand to the relevant Member State responsible for handling the case (Council of the EU, 2024b, p. 53).

7.1.8. A broader definition and scope of construction products

Finally, the Proposal suggested an increase in the EU-CPR 2024's overall scope, taking, for example, innovations such as 3D-printing into account. Thus, the regulation's remit would have included 3D-datasets placed on the market for the 3D-printing of construction products; materials meant for the 3D-printing of construction products on or near to the construction site; products manufactured on the construction site to be immediately incorporated into the construction process; and some prefabricated one-family-houses (European Commission, 2022b, art. 2 para. 1).

However, and reflecting the "*political compromise that was available in talks with the Parliament*", the Compromise Text moves wording on 3D-printing into Article 3 ('Definitions'), defining a construction product as a physical item that might include *"3D-printed products, or a kit that is placed on the market, including by means of supply to the construction site, for incorporation in a permanent manner in construction works*" (Council of the EU, 2024b, p. 7, 2024b, art. 3 para. 1). Any references to prefabricated houses were dropped in the Compromise Text.

The Compromise Text also acknowledges and attempts to resolve perceived regulatory challenges associated with new production technologies, such as 3D printing. In particular, the Compromise Text states that such technologies could involve multiple actors and

economic operators contributing to different stages of the product's design and manufacture. For instance, the designer of a 3D-printed product is likely to be different to the company which prints the product. To address this, the Compromise Text stipulates that "*it is necessary to establish a clearly defined manufacturer's role where the natural or legal person who does the actual production of a construction product assumes the responsibilities under this Regulation in respect of that product in its entirety*." In the case of 3-D printed products, the Compromise Text states that "*a natural or legal person that 3D-prints construction products when placing on the market products for clients should fulfil the obligations incumbent on manufacturers including the use of appropriate 3D-datasets*." (Council of the EU, 2024b, p. 15)

8. Industry perspectives of regulatory change: construction product case studies

8.1. Space heating appliances

Space heating appliances under the EU-CPR 2011 cover a broad range of products. These include radiators and convectors, gas-fired convection air heaters, residential solid fuel boilers and solid fuel local space heaters (the latter includes open fires, burners, stoves and room heaters fired by solid fuels). While there is no definition of 'space heating appliances' under the CPR; they can broadly be described as devices which emit heat which are incorporated as a permanent component of a building structure.

8.1.1. Complexities of regulatory coverage

Products which fall under the space heating appliance category of the EU-CPR 2011 act as a useful lens through which to examine the complexities of regulatory coverage under the EU-CPR 2011. These complexities are, in part, a consequence of the CPR's reliance on harmonised standards, which results in EU-CPR 2011 applying to certain types of space heating products, but not others. This has potentially serious implications in terms of knowing where regulatory boundaries lie, and which product groups fall within OPSS's remit.

A good example of this is provided by radiators. Radiators and convectors are covered by EN 442-1: 2014 and so fall under the regulatory remit of the EU-CPR 2011. However, EN 442 only applies to radiators and convectors which are permanently incorporated into building works and connected to a central heating system. The standard does not apply to independent heating appliances, which means that electric radiators are not covered by the harmonised standard (and so are not covered by the EU-CPR 2011).

Furthermore, while European standards exist for many types of electric radiators,[26] these standards have not been harmonised under the EU-CPR 2011, which means that electric radiators fall outside of the regulatory remit of the EU-CPR 2011. The same is also true of more innovative types of heating appliances, including radiant panel heaters and trench heaters, for which no harmonised standard exists.

The result is that the EU-CPR 2011 covers certain types of radiators (i.e., wet system radiators, permanently connected to a central heating system), but not others (i.e., electric radiators). **Thus, statutory regulation under the EU-CPR 2011 only extends into certain sectors of the radiator market**. Other types of space heating appliances are regulated by other European Regulations: electric radiators and fires fall under the Low Voltage Directive (Directive 2014/35/EU), while gas-fuelled space heaters (including gas fires) are regulated by the Gas Appliance Regulation (Regulation (EU) 2016/426).

[26] For instance, *EN 50559:2013+A1:2020: Electric room heating, underfloor heating, characteristic of performance. Definitions, method of testing, sizing and formula symbols*; or *EN 60531:2000+A11:2019 Household electric thermal storage room heaters. Methods for measuring performance.*

8.1.2. Where harmonised standards exist, compliance with the EU-CPR 2011 is straightforward

Trade associations and manufacturers emphasise that the space heating appliance industry is a heavily regulated industry with well-developed standards. Manufacturers understand these standards and the testing requirements expected of them, and they are well used to being regulated. As a result, manufacturers of space heating appliances typically have little difficulty meeting the regulatory requirements of the EU-CPR 2011, despite the complexities of regulatory coverage described above.

Much of this familiarity with regulatory expectations owes itself to the fact that heating appliances are held to high safety standards. This is because space heating appliances are products which have the potential to cause people harm. Unlike some construction products which are embedded in the fabric of the building, heating appliances need to be accessible to consumers; consumers need to be able to interact with them. For this reason, heating appliances have for a long time been expected to conform to high standards of safety.

Evidence from stakeholders also suggests that **manufacturers in the space heating appliance sector appear to be in a strong position to respond to regulatory change** because they are used to having to meet the requirements of different regulations. Manufacturers of solid fuel local space heaters, for instance, have since January 2022 had to comply with the Ecodesign Directive (see below), which imposed stringent new requirements on the efficiency and carbon emissions of appliances. While these requirements are different to the lifecycle sustainability requirements being introduced by the EU-CPR 2024, the fact that manufacturers in this sector are used to having to adapt their products to new environmental requirements puts them in a good position to respond to the EU-CPR 2024's new requirements. Manufacturers of solid fuel local space heaters, consulted for this research, express little concern about their ability to meet the sustainability requirements of the EU-CPR 2024. Furthermore, many manufacturers producing heating appliances covered by the EU-CPR 2011 also manufacturer other kinds of heating appliances covered by other regulations. Some manufacturers of wet-systems radiators, for instance, also manufacture electric radiators, which fall under the Low Voltage Directive. Similarly, some manufacturers of solid fuel local space heaters also produce gas-fired stoves and burners, which are regulated by the Gas Appliance Regulation. Manufacturers and trade associations express confidence in the ability of the sector to respond to changes in the EU-CPR 2024, including the new requirements around measuring products' sustainability performance throughout the product's lifecycle.

8.1.3. The Ecodesign Directive

As detailed in section 3.3 above, certain types of space heating appliances covered by a harmonised standard under the EU-CPR 2011 are also categorised as 'energy-using products' and so fall under the regulatory remit of the Ecodesign Directive (EDD). There are two main heating appliance types which are covered by both a harmonised standard under the EU-CPR 2011 and an implementing regulation under the EDD, and so there are two distinct product types which are subject to this regulatory overlap between the EU-CPR 2011 and the EDD. These products are:

- **Residential independent boilers** which are covered by EN 12809:2001+A1:2004, but which also fall under Commission Regulation (EU) 813/2013 (Lot 1) of the EDD, which extended the requirements of the EDD to "space heaters". "Space heaters" here

include boilers and heat pumps, as well as any device which "*provides heat to a water-based central heating system in order to reach and maintain at a desired level the indoor temperature of an enclosed space such as a building, a dwelling or a room*".

- **Solid fuel local space heaters**, which are covered by a range of harmonised standards,[27] but which also fall under Commission Regulation (EU) 2015/1185, which extended the requirements of the EDD to "solid fuel local space heaters", defined as "*a space heating device that emits heat by direct heat transfer or by direct heat transfer in combination with heat transfer to a fluid…. and is equipped with one or more heat generators that convert solid fuels directly into heat*." This includes solid fuel burners and stoves. This regulation came into effect from January 2022.

It is likely that this overlap will persist under the EU-CPR 2024. This is because construction products that are also energy-related products will continue to be subject to the sustainability requirements as set under the new Regulation on Ecodesign for Sustainable Products (ESPR), which is set to replace the EDD (this is explored in more detail above, in section 3.3)

When it first came into force, the **EDD was perceived as a considerable step change** for manufacturers of heating appliances to which it applied. The EDD imposed efficiency and carbon emissions requirements which went far above any of the testing requirements set out in harmonised standards under the EU-CPR 2011. According to evidence provided by stakeholders in the solid fuel sector, after the EDD came into force, the efficiency of heating appliances had to increase dramatically, while carbon dioxide emissions had to be substantially reduced. New tests were also introduced, such as the particulate matter tests. These new requirements forced many manufacturers to make substantial changes to improve the performance of their products, with many products needing to be precision engineered to ensure they met the new efficiency requirements. All of these changes constituted a considerable generational leap for manufacturers in the solid fuel heating appliance sector. Stakeholders in this sector emphasise that the **changes required by the EDD**, from 2022, were **perceived as a considerably steeper learning curve than the changes brought in by the EU-CPR 2011** in 2013.

However, while the changes introduced by the EDD may have been considerable, discussions with stakeholders suggest that **the regulatory overlap between the EDD and the EU-CPR 2011 has not created any serious problems for manufacturers** of these products. While the EDD may have introduced additional tests, these tests related to appliance efficiency, which is fundamentally different to the environmental and lifecycle sustainability requirements as set out in Basic Work Requirements (BWRs) 3 and 7 under the EU-CPR 2011. As such, the new tests introduced by the EDD did not conflict with any of the testing requirements concerning environmental impact set out in harmonised standards under the EU-CPR 2011. Furthermore, the fact that BWRs 3 and 7 have not yet been incorporated into any harmonised standard has eliminated any possibility of a potential conflict in testing requirements. (Economisti Associati et al., 2016, p. 94)

Although the new efficiency tests under the EDD have led to some additional costs for manufacturers, evidence from manufacturers reveals that these tests could be done at same time as the tests required by the EU-CPR 2011. This has helped to minimise the cost impact on manufacturers in terms of getting their products tested to both regulations.

[27] These include: EN 13229 Inset appliances including open fires fired by solid fuels; EN 13240 Room heaters fired by solid fuel; EN 14785 Residential space heating appliances fired by wood pellets; EN 15250 Slow heat release appliances fired by solid fuel.

The only inconvenience, highlighted by manufacturers, in having to comply with two sets of regulations, has been the need to produce two different documents: a Declaration of Conformity (DoC) under the EDD and DoP for EU-CPR 2011. This has created some (minor) confusion.

Although construction products which are also energy-related products will continue to fall under the remit of new ESPR, manufacturers are not concerned that there will be any conflicts in terms of testing requirements with the EU-CPR 2024. This is because the ESPR and the EU-CPR 2024 will continue to address different aspects of product performance. The environmental aspects under the EU-CPR 2024 are focused on sustainability performance throughout the product's lifecycle, while the ESPR will continue to focus on appliance efficiency.

8.1.4. Regulatory risk: availability of non-compliant heating appliances on online marketplaces

The availability of non-compliant products is an issue for all construction product types. However, the risk presented by non-compliant heating appliances, such as radiators, is arguably greater than for other construction products, as radiators are a construction product which are commonly purchased directly by consumers and homeowners.

Unlike many types of construction products, which are typically installed in a building after being specified at design stage and purchased by a building contractor from a builders' merchant, radiators are often bought by consumers to be installed directly into their homes. This is also supported by the fact that many manufacturers of space heating appliances, consulted for this research, state that their primary market is the domestic sector, rather than construction. Thus, while most construction products follow a pathway between manufacturer and consumer where there are multiple points for non-compliant products to be intercepted (especially at the wholesaler), radiators have a more direct route to consumer, which means the risk posed by non-compliant products is greater.

Stakeholders emphasise that this risk is particularly acute for radiators available on online marketplaces. Online marketplaces represent a kind of regulatory blind-spot involving the sale of products direct from manufacturers (often international ones) to consumers, meaning that non-compliant products can surpass regulatory authorities and the wholesalers. Stakeholders point out that the availability of non-compliant radiators – or radiators which do not meet their performance claims, or which have entirely false performance claims – on online marketplaces is becoming a growing problem.

The availability of non-compliant heating products has the potential to impact on consumer thermal comfort, as it leads to consumers buying heating products which are not fit for purpose, or which do not give the correct power output to heat their homes sufficiently. However, the availability of these products may also have more serious consequences, as it introduces the risk that consumers may purchase products which are unsafe. The availability of cheap, non-compliant products also puts reputable manufacturers (who pay to get their products tested and certified to meet the required standard) at an unfair market disadvantage.

8.2. Fixings

Fixings are a particularly broad and varied category of construction product. Fixings are products such as screws, nails, bolts and anchors that perform the act of holding and securing an object in place (Williams, 2012). Successful construction projects depend on the correct fixings in the correct application. The impact of different factors such as material compatibility, load-bearing capacity, and environmental conditions need to be taken into account when selecting the correct fixing product (ADA Fastfix, 2024).

There is a huge range of fixing products from nails to more innovative products like anchor fixings for drywalls. The range of products available on the market may include (but is not limited to):

- Light-duty plastic and nylon fixings (wall plugs, frame fixings, hammer-in fixings, cavity fixings, toggle and plasterboard fixings)
- Torque-controlled expansion anchors
- Undercut anchors set in self-undercut and drilled undercut holes
- Bonded anchors including spin-in resin anchor capsule and injection resin cartridge systems, fast-curing chemical anchor systems
- Self-tapping concrete screws
- Self-drilling fasteners for steel, aluminium and timber substrates

(The Construction Fixings Association n.d.)

Fixings are also a product type with a high level of market innovation. This is demonstrated by the high number of European Assessment Documents (EADs) and European Technical Documents (ETAs) in this product area. Fixings have the largest share of EADs of any construction product, accounting for 13% of all EADs for construction products created between 2014 and 2019, of which just under half were new EADs. (Centre for Industrial Studies, 2020, pp. 32-4)

In contrast, there are far fewer harmonised standards for fixing products. There are currently only two harmonised standards for fixings products. These are:

- EN 14566:2008+A1:2009 Mechanical fasteners for gypsum plasterboard systems
- EN 14592:2008+A1:2012 Timber structures - Dowel-type fasteners

8.2.1. Challenges relating to ETAs/EADs post-Brexit: Converting an ETA to a UKTA when a change has been made to an EAD

The fact that fixings products are so heavily dependent on ETAs and EADs, rather than harmonised standards, has created some specific challenges for manufacturers of these products, especially following the UK's departure from the EU and the introduction of UKCA marking.

Evidence provided by a manufacturer suggests that the process of adopting pre-EU exit EADs has not been smooth. A fixings manufacturer consulted for this research explains that, where small modifications or improvements are made to a product covered by an EAD, an ETA can be updated without having to update the EAD (which can be an expensive undertaking). The manufacturer in question gave an example of having updated an ETA to show the expansion of the working temperature range for a product. This modification to the ETA was achieved without having to request an updated EAD.

However, when the manufacturer came to use the existing ETA of this product to produce a UKTA, the fact that the packaging and product description demonstrated a temperature

range which did not align with the EAD (but which was set out in the updated ETA) prevented the manufacturer from being able to obtain a UKTA. The outcome is that the manufacturer is now planning on withdrawing this product from the UK market with the intention of replacing it with another type of product.

What this incident shows, therefore, is the potential for complications around the adoption of EADs to act as a tangible barrier to manufacturers meeting the UK's product requirements and bringing certain products to the UK market. The manufacturer explains that this as an example of a mechanism built in the EU that allows for incremental product devolution, which the UK hasn't transferred.

8.2.2. Impact on the development of new products post-Brexit

Stakeholders in the fixings sector also suggest that the departure of the UK from the EU may have a negative impact on the ability of UK manufacturers to develop new products.

Stakeholders emphasise there is a clear organisational structure in Europe – in the form of EOTA – for the development of new products, which includes putting in place test programmes and carrying out assessments of new products. With the UK's departure from the EU, however, UK Technical Assessment Bodies now have restricted access to EOTA. They can pay to be 'observer members', which allows them to access pre-Brexit ETAs/EADs, but they cannot contribute to the development of new EADs. (CPA, 2021, p. 3). Stakeholders also point out that there is no parallel structure in the UK for the development of new EADs or (or UK equivalents). There is currently no UK equivalent to EOTA where manufacturers can put in place a test standard and acquire an approval for a new product in order to bring that product to market. This, in turn, imposes severe limitations on the ability of UK-based manufacturers to develop new products. However, it should be noted that the UK legislation enables UK TABs to form a group of TABs to undertake various functions.

8.2.3. Demand for in-situ testing

One of the manufacturers, consulted for this research, explains that they sometimes receive requests from contractors to undertake in-situ testing of products. Although testing and performance data are made readily available by manufacturers about their products, this manufacturer explains that customers often still request to see a live test done on the product within the building site itself, to prove the product's performance claims. Stakeholder evidence suggests that manufacturers are attempting to step back from undertaking site visits to test products in-situ, due to having already spent time and money in testing the products and producing the necessary documents.

The demand for in-situ testing by contractors arguably represents a response by the construction industry to limitations within the testing infrastructure; specifically, the fact that products are tested under the EU-CPR 2011 in isolation, rather than as part of a system. The demand for in-situ testing therefore represents a kind of industry-led shift towards a form of systems-based testing. However, this kind of in-situ testing puts considerable burden on manufacturers who have already invested a lot of time and money in testing their products against the mandatory standards.

There are some applications where in-situ testing may be required. In-situ testing may be carried out on fixings if they are to be used in a critical application, if there is no technical data to confirm the suitability of the fixing, or if a fixing has failed. For example, a pull test

could be carried out when working within an old building where the design strength data of the concrete is unknown and therefore, the ETA cannot apply because it is missing an element that would show how the anchor would perform in that substrate (Hijaz, 2022).

8.3. Thermal insulation

As with fixings, insulation is also a very broad category of construction product, with a wide variety of materials and products available on the UK market. Common insulation materials include (but are not limited to) rigid polyisocyanurate (PIR) and polyurethane (PUR), phenolic, stone or glass wool, expanded polystyrene, sheep's wool and cellulose (Insulation Manufacturers Association, 2024). These products are applied in different settings such as roofs, walls, floors, ceilings and lofts.

Insulation products are covered by a broad range of harmonised standards under the EU-CPR 2011. There are 34 harmonised standards for insulation products, ranging from mineral wool (EN 13162) to phenolic foam (EN 13166).

Like fixings, insulation is also a product type which is characterised by a high level of market dynamism. Between 2014 and 2019, insulation products had the second-highest share (11%) of European Assessment Documents (EADs) of all construction products, with just over 40% of these being new EADs (Centre for Industrial Studies, 2020, pp. 32, 34).

Many of the insulation stakeholders consulted for this research describe the insulation market as 'sensitised'. The current spotlight on the safety of insulation materials, especially related to fire, was raised by multiple stakeholders as an important context to be aware of when reading this case study. Phase one of the Grenfell Inquiry (The Grenfell Inquiry, 2019), the Independent Review of the Construction Product Testing Regime (Morrell and Day, 2023) and the Independent Review of Building Regulations and Fire Safety (Ministry of Housing, Communities & Local Government, 2018) were mentioned by several stakeholders. Stakeholders in the insulation sector feel that the Grenfell inquiry in particular has drawn attention to the fire safety of insulation due to the focus on cladding and insulation materials within the inquiry and related news stories. Due to this context, manufacturers have seen an increased focus on how individual insulation products perform in terms of fire safety.

8.3.1. Fire safety and the tension between product testing and systems-based testing

A point raised by numerous stakeholders in the insulation sector consulted for this research is that the EU-CPR 2011 is concerned with how products perform in isolation (so they can be traded in the marketplace) rather than the safety of products in a system. As with all construction products, the performance and safety of insulation must be considered as part of a system, as it is dependent on the other products it is used alongside.

Within the context of the current spotlight on the fire safety of insulation products (as described above), insulation stakeholders describe a tension between individual product standards (which set out tests for products) and the Building Regulations (which allow products to act in combination as part of a system). Stakeholders also point out that, increasingly, they are seeing building specifiers stipulating that insulation products should meet a certain level of fire safety performance that is beyond what is required to meet

building regulations. In particular, stakeholders express that they can see a growing expectation that insulation products should have low combustibility.

Stakeholders in the insulation sector also perceive that insurance companies have contributed to these changing expectations around the performance of insulation products. Several stakeholders consulted for this research express the view that insurance companies are influencing which insulation products are accepted within building projects. They describe cases of insurance companies stating that they want to "*go beyond*" the Building Regulations. Stakeholders describe this as an emotive statement that may sound impressive to the public but cannot be quantified. Insulation stakeholders explain that product standards and the Building Regulations are the gold standard and there is no test to decide what 'going beyond' building regulations means. One insulation manufacturer consulted for this research perceives there is an assumption amongst insurers that non-combustible is safe and combustible is unsafe. Manufacturers also report that insurance companies are in a strong position due to the market being tight and that this problem would perhaps be solved in a wider market.

Stakeholders in the insulation sector also explain that when construction projects specify the use of insulation products with low combustibility only, then the full range of suitable insulation products available on the market is not considered. This problem is well demonstrated by an example given by a manufacturer who explains that, as part of a recent building project, it was decided that the design code will only accept non-combustible A1 insulation. However, stakeholders emphasise that combustible insulation sandwiched between thick concrete would still meet Building Regulations and could be used in this building project. Therefore, a decision was made to exclude a product, even though that product would be acceptable, in the correct combination, within the Building Regulations.

8.3.2. Testing capacity for insulation products in the UK

Several insulation stakeholders consulted for this research suggest there is insufficient capacity for the testing of insulation products in the UK and no capacity for the testing of certain products, such as:

- Insulated ducts
- Pipe insulation
- Some glazing products
- Eco-friendly materials such as shell-based materials

Stakeholders also state that the manufacturers of the products listed above would not currently be able to obtain a UKCA mark due to the requirements for UK-based testing. Instead, the product must be assessed by a notified body in the EU to obtain a CE mark. The associated risk is that the UK market may potentially lose the ability to develop or market certain products.

Also, within the context of the increased focus on fire safety testing, insulation manufacturers report that the list of testing permutations has become longer due to testing for many possible combinations of products. The fact that the testing regime for insulation products has become more protracted and burdensome for manufacturers may create challenges in the event of regulatory change or divergence.

As with other products, testing is an expensive endeavour, with one manufacturer estimating that the tests required for one product would be up to £50,000. However, it is

worth keeping in mind that there is no standard cost, and costs are dependent on the tests needed.

8.3.3. Challenges around the development of new products post-Brexit

Similar to stakeholders in the fixing industry, one insulation stakeholder expressed concern that the departure of the UK from the EU has the potential to have serious negative consequences on the ability of UK-based manufacturers to develop new products.

The stakeholder also highlights that there are some product types which are missing standards and there should be a route for the UK market to fast-track performance declarations where there isn't a current product standard. The example given was the testing of a tapered insulation panel. The compression test specified by the existing test standard is for a flat board, which cannot be applied to tapered products. This stakeholder explains that there is no route to request a revision to the standard until the next review cycle. Furthermore, in the absence of a UK equivalent to EOTA, there is also no route to develop a new test standard, or a new EAD, for tapered insulation panels.

The limited role of the UK in regards to the EOTA and the European infrastructure for product development, therefore, has serious implications for product development in the UK.

8.4. Adhesives

Construction adhesives are bonding agents used to join materials through the process of gluing. There are several construction adhesives covered by harmonised standards under the CPR (, see Table 4, below). These include gypsum-based adhesives (for bonding gypsum blocks and for thermal or acoustic insulation); cementitious adhesives for tiles; adhesives for structural assemblies, and adhesives for thermoplastic piping. There are also two European Technical Assessments for adhesives products (pending citation in the OJEU). These are:

- 250005-00-0606: Adhesive for wall cladding
- 250006-00-0404: Bonding acrylic foam tape

8.4.1. Reliance on superseded or withdrawn standards

One of the most pressing concerns for manufacturers of construction adhesives is the fact many of the harmonised standards for adhesive products have been superseded.

Most of the harmonised standards for construction adhesives are inherited from the CPD. What's more, many harmonised standards for adhesives, cited in the OJEU, are withdrawn standards which have since been replaced by an updated standard. These updated or 'current' standards are standards which have been developed by CEN, but which have not yet been approved by the European Commission and so are awaiting harmonisation and citation in the OJEU.

The standard for Cementitious Ceramic Tile Adhesives (CTAs) provides a good example. The **latest standard for this product is the EN 12004-1:2017 published by CEN in 2017**. However, the **standard currently used for this product –the harmonised standard currently cited in the OJEU – is the 2012 version (EN 12004:2007+A1:2012)** (Michalak 2022; Stancu et al., 2022; Michalak, 2021, Lukasik et al., 2020). The 2017 standard has not yet been published in the list of harmonised standards in the OJEU

(Stancu et al., 2022, p. 3) and so is not currently used as the harmonised standard. This means that manufacturers of CTAs have a legal obligation to assess their products against the older, harmonised standard even though a more up-to-date version of the standard is available.

A comparison of the list of harmonised standards cited in the OJEU against the list of standards published by the British Standards Institution (BSI) reveals the extent to which harmonised standards for adhesives have been superseded. **Of the nine harmonised standards published for adhesive products, three are listed as current standards by the BSI and five are listed as withdrawn**. One of these, the standard for adhesives for non-pressure thermoplastic piping systems (EN 14680:2006) was replaced by an updated standard (EN 14680:2015) almost a decade ago (see Table 4 below).

The reliance of the EU-CPR 2011 on superseded standards means that to acquire the CE mark and comply with the regulations, manufacturers of these products are legally required to assess their products against an old (often withdrawn) standard, even where updated standards exist. **Stakeholders explain this issue creates confusion for manufacturers,** about which standard they should be using, with trade associations then providing guidance to manufacturers that the standards they need to use are the older (harmonised) ones, rather than the updated (current, unharmonised) ones.

Table 4: Harmonised standards referenced in the OJEU compared to those referenced by BSI

Reference and title of the harmonised standards cited in the OJEU	Year published	Status on BSI website	Has the standard been updated?	Reference and title of updated BSI standard	Year published (updated standard)
EN 15274:2015 General purpose adhesives for structural assembly - Requirements and test methods	2015	Current	No	N/A	
EN 15275:2015 Structural adhesives - Characterisation of anaerobic adhesives for co-axial metallic assembly in building and civil engineering structures	2015	Current	No	N/A	
EN 12860:2001 Gypsum based adhesives for gypsum blocks - Definitions, requirements and test methods	2001	Current	No	N/A	
EN 12004:2007+A1:2012 Adhesives for tiles - Requirements, evaluation of conformity, classification and designation	2012	Withdrawn	Yes	BS EN 12004-1:2017 – TC Adhesives for ceramic tiles - Requirements, assessment and verification of constancy of performance, classification and marking	2017
EN 14496:2005 Gypsum based adhesives for thermal/acoustic insulation composite panels and plasterboards - Definitions, requirements and test methods	2005	Withdrawn	Yes	BS EN 14496:2017 – TC Gypsum based adhesives for thermal/acoustic insulation composite panels and gypsum boards. Definitions, requirements and test methods	2017

EN 14680:2006 Adhesives for non-pressure thermoplastic piping systems - Specifications	2006	Withdrawn	Yes	BS EN 14680:2015 – TC Adhesives for non-pressure thermoplastics piping systems. Specifications	2015
EN 14814:2007 Adhesives for thermoplastic piping systems for fluids under pressure - Specifications	2007	Withdrawn	Yes	BS EN 14814:2016 – TC Adhesives for thermoplastic piping systems for fluids under pressure. Specifications	2016
EN 14891:2012 Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives - Requirements, test methods, evaluation of conformity, classification and designation	2012	Withdrawn	Yes	BS EN 14891:2017 – TC Liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesives. Requirements, test methods, assessment and verification of constancy of performance, classification and marking	2017

Stakeholders in the adhesives sector point out that updates are made to standards for important technical reasons, either because the market has changed and standards must be updated accordingly, or because there was an error in the original standard. Stakeholders state that products should therefore be assessed on current standards as these are the most up-to-date and relevant to the market; any new regulatory regime should also be based on, and enforce, current product standards.

8.4.2. Testing challenges for adhesives – long testing times

The testing regime for adhesives is complex and prolonged. Testing for adhesives takes time. Tests need to account for curing and drying times and testing times can vary across different products. Depending on the product, the testing process may include making different bonds, using several test pieces and testing under different conditions. Stakeholders in the adhesives sector consulted for this research explain that, when looking at durability, even in an accelerated test it may take three months before a test piece is ready to be tested.

The time required to test adhesives has the potential to create bottlenecks at the testing stage. Lessons learned from the ways manufacturers adapted to the transition from the CPD to the EU-CPR 2011 may give an indication of the challenges which adhesives manufacturers might encounter. Stakeholders representing the adhesives industry explained that the introduction of the EU-CPR 2011 – which made testing and CE marking compulsory for adhesives covered by a harmonised standard – created difficulties for manufacturers as the 18-month transition period was not sufficient to complete the necessary testing for adhesive products. To meet the test requirements, many manufacturers declared only the performance value for the quickest test – the instant flow test, which does not involve waiting for the product to cure – and inserting No Performance Declared (NPD) for the other essential characteristics. This allowed manufacturers to fulfil their legal obligations and issue a DoP, with the aim of reissuing the DoP when the lengthier tests have been completed.

8.4.3. Testing challenges for adhesives – complexities in certain tests

As well as being a lengthy process, the testing of adhesive products is also very complicated, with many tests carrying high uncertainty values which results in low reproducibility of results. **Stakeholders emphasise that complexities of testing adhesives will need to be considered if OPSS wishes to establish a more robust market surveillance regime involving more checking and sampled testing of products after they enter the market**.

A good case study with which to explore testing complexities is cementitious ceramic tile adhesives (CTAs), for which a relatively large literature exists.

CTAs are classified into two classes according to their adhesion properties and deformability: Class 1 (C1 – normal adhesive) or Class 2 (C2 – improved adhesive) (Mapei 2020). One of the essential characteristics against which CTAs are assessed is tensile adhesion strength. Tensile adhesive strength is tested under various conditions including:

- after 28 days,
- after immersion in water,
- after heat ageing, and
- after freeze-thaw cycles.

Additional tests include fast setting/drying, no vertical slip, extended open time and special deformable characteristics. (Lukasik et al., 2020).

Much of the academic literature on CTAs emphasises that the tensile strength test for CTAs is characterised by a high level of measurement uncertainty. This, in turn, results in a high degree of variability in results obtained from different laboratories performing the same test, which consequently means that the reproducibility of test results for tensile adhesion strength of CTAs is quite low. Reproducibility is understood as the degree of agreement between the results obtained by different analysts in different laboratories who are undertaking the same test (Michalak, 2022, Lukasik et al., 2020). One recent academic study shows the auxiliary materials used in the tensile adhesion strength test – such as concrete slabs and ceramic tiles – can impact significantly on the results obtained. In some cases, these variations in results could determine, "*whether or not the obtained value meets the acceptance criteria*" and therefore whether or not the product is considered to be compliant. (Michalak, 2022, p. 190).

The high level of measurement uncertainty prevalent in the tensile strength test for CTAs, along with the subsequent difficulties in reproducing test results, creates challenges for market surveillance authorities wanting to check the compliance of products after they have entered the market. This challenge is demonstrated in a recent Polish study (Lukasik et al., 2020), which analysed the test results of 129 samples of CTAs tested at the request of Polish construction supervision authorities, in Notified Bodies between 2016 and 2019. The study found that **many tested products did not meet the threshold values, which resulted in their removal from the market**. The study also alludes to complexities in the testing regime for CTA – especially the test for tensile adhesion strength – in explaining why some CTAs did not meet the threshold values upon inspection:

"*Discussing the issue of verification, previously performed by the AVCP manufacturer, and currently by the construction supervision authorities in Poland, one should remember the complexity of measuring adhesion defined as tensile strength, including the reproducibility of results, and the influence of various factors on the test result described in the introduction to the article*" (Lukasik et al., 2020, p. 14).

Reproducibility of results from testing laboratories is also mentioned by stakeholders consulted for this research. Stakeholders representing trade associations explain that, if manufacturers are dealing with a test that takes three months, then the issue of retesting needs to be kept in mind when considering testing timelines.

Challenges around the reproducibility of results for adhesives testing is something that, in the view of stakeholders, OPSS will need to take into account if considering increasing market surveillance and post-market testing of products. As the findings from the Polish study show, above, the process of checking the compliance of products becomes much more challenging if the results from basic tests cannot be easily reproduced: products which may have met essential thresholds in the first test may not do so on a subsequent test.

9. Summary of main findings conclusions

9.1. Impact on regulators

9.1.1. EU-CPR 2011's reliance on harmonised standards

Perhaps one of the most serious limitations of the EU-CPR 2011, which hampers its effectiveness as a regulatory instrument, is its reliance on harmonised standards. The UK adopted this Regulation, and it became assimilated EU law when the UK left the European Union and OPSS became the national regulator for construction products in 2021.

The EU-CPR 2011 is more reliant on the system of harmonised standards than other EU regulations. Unlike other regulations which form part of the EU's "New Legislative Framework", harmonised standards under the EU-CPR 2011 are mandatory. The evidence gathered as part of this research project suggests this reliance on harmonised standards has several associated problems. Not only does it mean the **EU-CPR 2011's statutory coverage is limited to products for which there is a harmonised technical specification**, it also means that statutory regulation of construction products is **dependent on a system of standards development**. Evidence suggests this system is not keeping pace with technological or market developments, and has been criticised for being insufficiently representative of SMEs, consumers, and environmental interest groups.

The construction products market is characterised by a high level of dynamism and innovation, with new or updated products constantly entering the market. The fact that the CPR depends on what has been described in the literature as an "*underperforming*" system of standardisation means that **the EU-CPR 2011 is not keeping pace with developments in the market**; the standards on which it depends are, in the case of many products, have been superseded and do not reflect the current state of the construction products market.

The reliance on superseded standards – many of which dating back to the CPD and therefore based on technical knowledge which is over a decade old –has led to challenges around the ability of the EU-CPR 2011 to deliver on many of the EU's broader sustainability agendas.

While the European Commission's original 2022 Proposal had contained an article empowering the European Commission to use delegated acts to establish essential characteristics and their assessment methods, thus circumventing the main route for standards development, this provision was cut back in the 2024 Compromise Text. The EU-CPR 2024 therefore largely keeps the current standardisation route intact.

While a potential solution to the EU-CPR 2011's limited coverage has been proposed by the UK Building Safety Act, which introduces the category of "critical safety products" and the "general safety requirement", care would need to be taken to set standards for such safety-critical products that consider the applications which would make a product safety critical. In this way, the focus would be less on standalone safety-critical products, and more on "safety critical construction", or even safety critical systems.

9.1.2. Market surveillance and enforcement challenges

The EU-CPR 2011 also has specific features and mechanisms which inadvertently limit the effectiveness with which the Regulation can be enforced.

Firstly, given that the EU-CPR 2011 is based on the horizontal legal framework for the marketing of products (the "New Legislative Framework"), which refrains from taking a prescriptive approach to the resourcing of market surveillance and enforcement at a national level. As a result, market surveillance practices vary markedly between Member States and many Member States have cut resources available to market surveillance of construction products.

Secondly, the **provision of self-declaration**, which gives manufacturers the option not to declare on the DoP performance values for any of the essential characteristics, **limits effective enforcement** by not providing enforcement authorities with a basis on which to assess whether a product achieves its declared performance.

9.1.3. Regulatory overlaps

Although certain types of construction products, which fall under the 'space heating appliances' category of the EU-CPR 2011, are covered by both a harmonised standard, under the EU-CPR 2011, and an implementing regulation under the **Ecodesign Directive** (EDD) so far, **there have been no serious problems as a result of this regulatory overlap**.

The main reason for this is because the EU-CPR 2024 and the EDD ultimately address different aspects of sustainability. Appliance tests under the EDD relate to appliance efficiency, which is fundamentally different to the environmental and lifecycle sustainability requirements as set out in Basic Work Requirements (BWRs) 3 and 7 under the EU-CPR 2011. Further, the fact that BWR3 and BWR7 **have not yet been fully integrated into any harmonised standard** has essentially eliminated any risk of conflicting testing requirements between harmonised standards under the EU-CPR 2011, and the implementing regulations under the EDD. Manufacturers of products covered by both regulations have also been able to get their products tested against the requirements of the EU-CPR 2011 and the EDD simultaneously, meaning that the regulatory overlap has not resulted in the burden of double testing.

The only administrative inconvenience for manufacturers, which has resulted from this overlap, has been the need to submit two separate documents for each regulation (a DoP for the EU-CPR 2011, and a DoC for the EDD).

Crucially, under the proposed Regulation on Ecodesign for Sustainable Products (ESPR), **construction products which are also energy-related products will be subject to the sustainability requirements set out under the ESPR** (in the way that they are currently subject to requirements under the EDD). This means that, although the ESPR has sought to avoid any overlap with the EU-CPR 2024 in terms of sustainability requirements, the potential for conflicting testing requirements – for construction products which are also energy-related products, regulated by both the EU-CPR 2011 and the ESPR – has not been fully resolved.

9.2. Impact on manufacturers

Since the EU-CPR 2011 has been in place for over a decade, the problems currently faced by manufacturers when complying with the EU-CPR 2011 tend to be minimal.

The aspect of the EU-CPR 2011 which causes greatest confusion for manufacturers is the **need to assess against superseded standards**, especially in instances where new standards have been drafted, but have not yet been harmonised. However, since the EU-CPR 2024 is unlikely to change the core functioning of the standards development system, **it is unlikely that the confusion associated with the need to conform to superseded standards will be addressed**. It is also noteworthy that the EU-CPR 2024 is likely to have a long period of coexistence where manufacturers will still be using standards from the EU-CPR 2011 (or possibly even earlier).

Manufacturers generally have a good understanding of the obligations placed on them by the EU-CPR 2011 and are familiar with the requirements associated with the DoP, CE marking and the need to assess product performance against harmonised standards (although the DoP did create some confusion and difficulties when it was first introduced as a mandatory instrument under the CPR in 2013).

9.3. Impact on construction product users

Evidence suggests that the level of understanding of the EU-CPR 2011 amongst professional users of construction products is low.

While most professional product users are typically aware of the EU-CPR 2011, **the EU-CPR 2011 itself has limited practical relevance to the daily work of most users**. Furthermore, although some users are likely to have more familiarity with certain instruments of the EU-CPR 2011 such as the DoP (most notably specifiers, who use product performance data contained in the DoP, along with wider technical literature produced by the manufacturer, to write specifications for building designs), levels of understanding of other aspects of the EU-CPR 2011, such as the AVCP system and the meaning of the CE mark, remain low. Evidence suggests that **many professional product users continue to misunderstand the CE mark** and view it as a safety or quality mark.

One of the reasons for this low level of understanding is due to an (understandable) assumption, certainly amongst building contractors, that construction products are safe to use on site if they bear the CE mark and that compliance issues pertaining to products have been dealt with earlier in the supply chain. For this reason, many construction product users, especially those involved in the construction of buildings, pay little attention to the EU-CPR 2011 or to matters of compliance relating to construction products. The consequence of this is that **there is often a disconnect between professional products users and the regulatory regime for construction products**.

9.4. Impact on testing laboratories

One of the most significant challenges currently facing testing laboratories is the fact that, following the UK's departure from the EU, **Approved Bodies in Great Britain are no longer represented in the European Group of Notified Bodies** (GNB). This means that GB Approved Bodies can no longer access important shared learnings, guidance documents or position papers, which are disseminated by this group, and which constitute important guidance fostering a consistent approach to testing and interpretation of harmonised standards.

Appendix 1: Articles 56-59 of EU-CPR 2011 – Market surveillance and safeguard procedures

Article 56: Procedure to deal at national level with construction products presenting a risk

1. Where the market surveillance authorities of one Member State *have taken action pursuant to Article 20 of Regulation (EC) No 765/2008 or* where they have sufficient reason to believe that a construction product covered by a harmonised standard or for which a European Technical Assessment has been issued does not achieve the declared performance and presents a risk for the fulfilment of the basic requirements for construction works covered by this Regulation, they shall carry out an evaluation in relation to the product concerned covering the respective requirements laid down by this Regulation. The relevant economic operators shall cooperate as necessary with the market surveillance authorities.

Where, in the course of that evaluation, the market surveillance authorities find that the construction product does not comply with the requirements laid down in this Regulation, they shall without delay require the relevant economic operator to take all appropriate corrective actions to bring the product into compliance with those requirements, notably with the declared performance, or to withdraw the product from the market, or recall it within a reasonable period, commensurate with the nature of the risk, as they may prescribe.

The market surveillance authorities shall inform the notified body accordingly, if a notified body is involved.

Article 21 of Regulation (EC) No 765/2008 shall apply to the measures referred to in the second subparagraph of this paragraph

Article 56(1) of EU-CPR 2011 as amended by Regulation (EU) 2019/1020 on market surveillance and compliance of products.

‘1. Where the market surveillance authorities of one Member State have sufficient reason to believe that a construction product covered by a harmonised standard or for which a European Technical Assessment has been issued does not achieve the declared performance and presents a risk for the fulfilment of the basic requirements for construction works covered by this Regulation, they shall carry out an evaluation in relation to the product concerned covering the respective requirements laid down by this Regulation. The relevant economic operators shall cooperate as necessary with the market surveillance authorities.’

2. Where the market surveillance authorities consider that the non-compliance is not limited to their national territory, they shall inform the Commission and the other Member States of the results of the evaluation and of the actions which they have required the economic operator to take.

3. The economic operator shall ensure that all appropriate corrective action is taken in respect of all the construction products concerned which that economic operator has made available on the market throughout the Union.

4. Where the relevant economic operator, within the period referred to in the second subparagraph of paragraph 1, does not take adequate corrective action, the market surveillance authorities shall take all appropriate provisional measures to prohibit or restrict the making available of the construction product on the national market or to withdraw the construction product from that market or to recall it.

The market surveillance authorities shall inform the Commission and the other Member States, without delay, of those measures.

5. The information referred to in paragraph 4 shall include all available details, in particular the data necessary for the identification of the non-compliant construction product, the origin of the construction product, the nature of the non-compliance alleged and the risk involved, the nature and duration of national measures taken as well as the arguments put forward by the relevant economic operator. In particular, the market surveillance authorities shall indicate whether the non-compliance is due to either of the following:

(a) failure of the product to achieve the declared performance and/or to meet the requirements related to the fulfilment of basic requirements for construction works laid down in this Regulation;

(b) shortcomings in the harmonised technical specifications or in the Specific Technical Documentation.

6. Member States other than the Member State initiating the procedure shall without delay inform the Commission and the other Member States of any measures adopted and of any additional information at their disposal relating to the non-compliance of the construction product concerned, and, in the event of disagreement with the notified national measure, of their objections.

7. Where, within 15 working days of receipt of the information referred to in paragraph 4, no objection has been raised by either a Member State or the Commission in respect of a provisional measure taken by a Member State in relation to the construction product concerned, that measure shall be deemed justified.

8. Member States shall ensure that appropriate restrictive measures are taken without delay in respect of the construction product concerned, such as withdrawal of the product from their market.

Article 57: Union safeguard procedure

1. Where, on completion of the procedure set out in Article 56(3) and (4), objections are raised against a measure taken by a Member State or where the Commission considers a national measure to be contrary to Union legislation, the Commission shall without delay enter into consultation with the Member States and the relevant economic operator(s) and shall evaluate the national measure. On the basis of the results of that evaluation, the Commission shall decide whether the measure is justified or not.

The Commission shall address its decision to all Member States and shall immediately communicate it to them and to the relevant economic operator(s).

2. If the national measure is considered justified, all Member States shall take the necessary measures to ensure that the non-compliant construction product is withdrawn from their markets and shall inform the Commission accordingly. If the national measure is considered unjustified, the Member State concerned shall withdraw the measure.

3. Where the national measure is considered to be justified and the non-compliance of the construction product is attributed to shortcomings in the harmonised standards as referred to in Article 56(5)(b), the Commission shall inform the relevant European standardisation body or bodies and shall bring the matter before the Committee set up pursuant to Article 5 of Directive 98/34/EC. That Committee shall consult with the relevant European standardisation body or bodies and deliver its opinion without delay.

Where the national measure is considered to be justified and the non-compliance of the construction product is attributed to shortcomings in the European Assessment Document or in the Specific Technical Documentation as referred to in Article 56(5)(b), the Commission shall bring the matter before the Standing Committee on Construction and subsequently adopt the appropriate measures.

Article 58: Complying construction products which nevertheless present a risk to health and safety

1. Where, having performed an evaluation pursuant to Article 56(1), a Member State finds that, although a construction product is in compliance with this Regulation, it presents a risk for the fulfilment of the basic requirements for construction works, to the health or safety of persons or to other aspects of public interest protection, it shall require the relevant economic operator to take all appropriate measures to ensure that the construction product concerned, when placed on the market, no longer presents that risk, to withdraw the construction product from the market or to recall it within a reasonable period, commensurate with the nature of the risk, which it may prescribe.

2. The economic operator shall ensure that any corrective action is taken in respect of all the construction products concerned which that economic operator has made available on the market throughout the Union.

3. The Member State shall immediately inform the Commission and the other Member States. That information shall include all available details, in particular the data necessary for the identification of the construction product concerned, the origin and the supply chain of the product, the nature of the risk involved, and the nature and duration of the national measures taken.

4. The Commission shall without delay enter into consultation with the Member States and the relevant economic operator(s) and shall evaluate the national measures taken. On the basis of the results of that evaluation, the Commission shall decide whether the measure is justified or not and, where necessary, propose appropriate measures.

5. The Commission shall address its decision to all Member States and shall immediately communicate it to them and to the relevant economic operator(s).

Article 59: Formal non-compliance

1. Without prejudice to Article 56, where a Member State makes one of the following findings, it shall require the relevant economic operator to put an end to the non-compliance concerned:

(a) the CE marking has been affixed in breach of Article 8 or 9;

(b) the CE marking has not been affixed, when required, in accordance with Article 8(2);

(c) without prejudice to Article 5, the declaration of performance has not been drawn up, when required, in accordance with Article 4;

(d) the declaration of performance has not been drawn up in accordance with Articles 4, 6 and 7;

(e) the technical documentation is either not available or not complete.

2. Where the non-compliance referred to in paragraph 1 continues, the Member State shall take all appropriate measures to restrict or prohibit the making available on the market of the construction product or ensure that it is recalled or withdrawn from the market.

Appendix 2: New functional, safety, environmental and information requirements for construction products in EU-CPR 2024

Compromise Text: Annex I.3.1 Product requirements ensuring appropriate functioning and performance

1.1. Harmonised technical specifications adopted in accordance with Article 5(1) may, as appropriate for the products it covers, specify that products shall be designed, manufactured, and packaged in such a way that one or more of the following functional and performance requirements are over the product's life cycle, addressed in accordance with the state of the art and to the extent not covered by other EU legislation:

(a) the intended purpose is effectively and reliably fulfilled;

(b) the fulfilment of the declared performance is not impaired;

(c) the fulfilment of the safety and environmental requirements set out in accordance with points 2.1 and 3.1 is not impaired;

(d) the functionality of the products is maintained

1.2. Voluntary harmonised standards, requested in accordance with Article 5(3), shall set out how any requirements in accordance with Point 1.1 can be fulfilled, by for instance:

(a) the use of specific materials which can be specified also in terms of their chemical composition;

(b) specific dimensions and shapes of products or their components;

(c) the use of certain components which can be specified also in terms of materials, dimensions and shapes;

(d) the use of certain accessories and requirements for them;

(e) ease of installation and deinstallation; (f) ease of maintenance or no maintenance required for the expected life span;

(g) characteristics of the product, including cleanability, scratch resistance and break resistance, under usual operation conditions.

1.3. When specifying the functionality and performance product requirements, harmonised technical specifications may differentiate these in accordance with performance classes.

Annex I.3.2 Inherent Product Safety Requirements

Safety relates to professionals (workers) and laypersons (consumers, occupants), while they transport, install, maintain, use or dismantle the product, as well as while they treat the product for its end of life phase or its reuse or recycling.

1.1. Harmonised technical specifications adopted in accordance with Article 5(1) may, as appropriate for the products it covers, specify that products shall be designed, manufactured, and packaged in such a way that one or more of the following inherent product safety risks are, over the product’s life cycle, addressed in accordance with the state of the art and to the extent not covered by other EU legislation:

(a) chemical risks due to leaking or leaching;

(b) risk of unbalanced composition in terms of substances resulting in flawed, safety-relevant functioning of products;

(c) mechanical risks;

(d) mechanical failure;

(e) physical failure

(f) risks of electric failure;

(g) risks linked to electricity supply breakdown;

(h) risks linked to unintended charge or discharge of electricity;

(i) risks linked to software failure;

(j) risks of software manipulation;

(k) risks of incompatibility of substances or materials;

(l) risks linked to the incompatibility of different items, at least one of them being a product;

(m) risk of not performing as intended, whilst the performance is safety relevant;

(n) risk of misunderstanding instructions for use in a field affecting health and safety;

(o) risk of unintended inappropriate installation or use;

(p) risk of intended inappropriate use.

1.2. Harmonised standards and common specifications providing presumption of conformity shall set out how any requirements in accordance with Point 1.1 can be fulfilled, by for instance:

(a) defining the state of the art of possible risk reduction with regard to the respective product category, including the risk of incompatibility of different items, at least one of them being a product;

(b) providing technical solutions that avoid safety-related risks; or

(c) where risk avoidance is not possible, reduce and mitigate risks by addressing them through warnings on the product, its packaging and in instructions for use.

1.3. When specifying the inherent product safety requirements, harmonised technical specifications may differentiate these in accordance with performance classes.

Annex I.3.3 Inherent Product Environmental Requirements

Environment relates to the extraction and manufacturing of the materials, the manufacturing of the product, the transport of materials and products, its maintenance, its potential to remain as long as possible within a circular economy and its end of life phase.

2.1. Harmonised technical specifications adopted in accordance with Article 5(1) may, as appropriate for the products it covers, specify that products shall be designed, manufactured, and packaged in such a way that one or more of the following inherent product environmental aspects are, over the product's life cycle, addressed wherever possible without safety loss or outweighing negative environmental impact and to the extent not covered by other EU legislation:

(a) maximising durability and reliability of the product or its components as expressed through a product's technical lifetime indication of real use information on the product, resistance to stress or ageing mechanisms and in terms of the expected average life span, the minimum life span under worst but still realistic conditions, and in terms of the minimum life span requirements and prevention of premature obsolescence;

(b) minimising life-cycle greenhouse gas emissions;

(c) maximising reused, recycled and by-product content

(d) selection of safe, sustainable-by-design, and environmentally benign substances;

(e) energy use and energy efficiency;

(f) resource efficiency; (fa) modularity;

(g) identification which product or parts thereof and in what quantity can be reused after de-installation (reusability);

(h) upgradability;

(i) ease of reparability during the expected life span, including compatibility with commonly available spare parts;

(j) ease of maintenance and refurbishment during the expected life span;

(k) recyclability and the capability to be remanufactured;

(l) capability of different materials or substances to be separated and recovered during dismantling or recycling procedures (la) sustainable sourcing; (lb) minimising product-to-packaging ratio; (le) amounts of waste generated, notably hazardous waste.

3.2. Harmonised standards and common specifications providing presumption of conformity shall set out how any requirements in accordance with Point 3.1 can be fulfilled, by for instance:

(a) defining the state of the art of addressing the environmental aspects with regard to the respective product category, including the minimum recycled content, whole life cycle greenhouse gas emissions, resource efficiency, and reusability;

(b) providing technical solutions which avoid negative environmental effects and risks, including the generation of waste materials, or where avoidance is not possible, reduce and mitigate negative effects and risks by addressing them through warnings on the product, its packaging and in instructions for use.

3.3. When specifying the inherent product environmental requirements, harmonised technical specifications may differentiate these in accordance with performance classes.

Annex I.4 General Information, Instructions for Use and Safety Information

1. General information

1.1. Product identification: unique identification code of the product type

1.2. Product description:

(a) declared uses;

(b) intended users;

(c) conditions of uses;

(d) estimated average and minimum service life span for declared use (durability);

(f) main materials used

1.3. Contact details of the manufacturer or the authorised representative:

(a) name;

(b) postal address;

(c) telephone;

(d) email address;

(e) website, where available.

1.4. Where different from Point 1.3, contact details of the manufacturer or the authorised representative dealing with:

(i) information on installation, maintenance, use, deconstruction and demolition;

(ii) information on risks;

(iii) information in case of failure.

1.5. Contact details of the product contact point for construction in the Member State in which the product is made available.

2. Instructions for use and safety information

2.1. Safety during transport, installation, deinstallation, maintenance, deconstruction and demolition:

(i) potential risks of the product and any reasonably foreseeable misuse thereof;

(ii) instructions for the assembly, installation and connection, including drawings, diagrams and, where relevant, the means of attachment to other products and parts of construction works;

(iii) instructions for operation and maintenance to be carried out safely, including the protective measures that should be taken during these operations;

(iv) if necessary, instructions for the training of the installers or operators;

(v) information on what to do in case of failure or accidents.

2.2. Compatibility and integration into systems or kits:

(i) compatibility with other materials or products, regardless of whether they are covered by this Regulation or not;

(ii) electric and electro-magnetic compatibility;

(iii) software compatibility;

(iv) integration into systems or kits

2.3. Maintenance needs with a view to maintaining the performance of the product during its service life span:

(i) description of the adjustment and maintenance operations that should be carried out by the users and the preventive maintenance measures that should be observed;

(ii) the type and frequency of inspections and maintenance required for safety and durability reasons and, where appropriate, the parts subject to wear and the criteria for replacement;

(iii) information on what to do in case of failure or accident.

2.4. Safety during use:

(i) instructions on the protective measures to be taken by the user, including, where appropriate, the personal protective equipment to be provided;

(ii) instructions designed for the safe use of the product, including the protective measures that should be taken during its use;

(iii) information on what to do in case of failure or accident during use.

2.5. Training and other requirements necessarily to be fulfilled for safe use

2.6. Risk mitigation possibilities going beyond points 2.1 to 2.5.

2.7. Recommendations for a product's:

(a) repair;

(b) de-installation;

(c) reuse;

(d) remanufacturing;

(e) recycling;

(f) safe deposit.

2.8. Where applicable, information on the performance of the product as measured in terms of its climate change effects - total, as referred to in point (a) of Annex I.2, and human toxicity, cancer, as referred to in point (n) of Annex I.2

3. The information provided on the elements listed in point 2. shall, both in terms of quantity and quality, suffice to make knowledgeable decisions on purchase, including the respective needed quantity, installation, use, maintenance, dismantling, reuse and recycling of the product. It may include all the drawings, diagrams, descriptions and explanations necessary to understand it.

The information shall, as appropriate, strive to take into account the needs of designers, building authorities, construction professionals, building control authorities, consumers and other users, occupants, use managers, and of maintenance professionals.

4. Guidelines and technical details developed in accordance with Article 5b(2) shall also recommend where the respective information is to be provided, aiming, by choice of the location, at the utmost likelihood for information not be overlooked.

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https://www.gov.uk/government/organisations/office-for-product-safety-and-standards