Department for Levelling Up,
Housing & Communities

Testing for a Safer Future

An Independent Review of the Construction Products Testing Regime

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Foreword from Dame Judith Hackitt

In my final report “Building a Safer Future”, published in May 2018, I stated that “The system that covers product testing, labelling and marketing is at least as complicated as the entire regulatory system which was mapped in the interim report. It is apparent that the current system makes it difficult to know whether the right products are being used.” The report then went on to make some recommendations which would set a direction of travel for improved product safety.

In the intervening period since my report was published, it has become increasingly clear that improvements in construction product performance assessment must form a critical element of the new, stricter regulatory framework. To that end the Government’s decision to create a Construction Products regulator under the OPSS is very much welcomed.

This report marks a major step forward in mapping the complexity and opacity of the current construction product regime and also identifies ways in which significant improvements can and should be made. Paul Morrell and Anneliese Day are to be commended for the thorough way in which they have gone about this complex task. This is an opportunity which must be taken, and with some urgency.

We must move from a state where: up to two-thirds of products are unregulated, there is lack of clarity around purpose of testing, the fitness for purpose of current standards is questioned and there is no enforcement to implement a process that delivers quality and confidence.

It should be self-evident to everyone that we need products which do the job they are expected to do and are marketed honestly and transparently, that Conformity Assessment bodies must be adequately resourced, independent and impartial to provide confidence, and that those who design and build buildings must choose the right products; but it is equally clear that there have been and still are serous gaps in our current system.

The task now is to use the wealth of information mapped out here to create a new framework that drives the right behaviours, which enables effective enforcement by the regulators and delivers buildings where people can have confidence in their quality and safety.

Dame Judith Hackitt DBE FREng

Preface

The fire at Grenfell Tower has exposed serious weaknesses in the regulation of construction work. It is clear that such weaknesses extend to the regulation of construction products, and tackling them is the particular focus of this independent review.

Since the Construction Products Directive was first published in 1988, with a primary objective of serving a single market by the removal of technical barriers to trade, the United Kingdom has been part (and an active part) of the European standards infrastructure which has set common standards for construction products. To date, assessing their conformity to standard and performance has been directed by the EU using the standards created by CEN and CENELEC, the platforms for the development of European Standards[1]. The subsequent CE marking of products was a declaration by the manufacturer that the product would meet certain performance requirements as set down in the standards (a "Declaration of Performance"), but matters of health and safety remained the responsibility of member states.

That position remained unchanged when the Directive was replaced by the Construction Products Regulation in 2011 and, in the absence of additional national requirements, trust in all aspects of a product's performance relies upon compliance with that Regulation and its effective enforcement through the UK's Construction Products Regulations 2013.

Thus, a system originally designed to serve a single market is now expected to perform a much heavier role; and over the last 30 years, although the UK has been an influential participant in the process, it has depended upon the EU to set the regulatory framework for products.

This has led to a hollowing out of expertise in the UK, with consequent examples of over-reliance upon the standards and statutory guidance displacing professional judgement; with false or unsubstantiated claims for product performance not being recognised for what they are; and, although member states remain responsible for surveillance and enforcement, with the authorities responsible for both lacking the experience or capacity to hold to account those acting in breach of the regulations.

Moreover, the globalisation of supply chains has made the sector more complex. Product innovation has moved ahead of the standards and regulations that should guide and govern it, and sometimes ahead of the technical knowledge required to inform both standards (including testing standards) and regulation.

The Grenfell Tower tragedy and the failings it has laid bare have made clear the imperative for change. Further, the exit from the EU provides an opportunity to look again at the whole system of construction product regulation, and how it might be both simplified and strengthened to restore confidence in the claims made for construction products and the critical part they must play in making buildings safe.

This review therefore looks across the whole system of construction product regulation to provide an understanding of what needs to change before products are placed on the market – and, crucially, before they are placed in buildings. It asks how product users can make informed choices about fitness for purpose and how, through the right processes, diligent oversight and the principles of transparency and accountability, there can be confidence that products are selected, handled, installed, operated and maintained against clear and verifiable Declarations of Performance.

There is more than one path through the necessary change programme, but this is fundamentally a systems issue and it demands a systems approach. Each step through this complex landscape

[1] See Sections 10.3 and 10.4 below.

of interconnected issues therefore needs to be planned with a full awareness of all of its potential consequences, to develop a new regulatory regime that is both coherent and effective. Crucially, that regime needs to be underpinned by equally effective and properly resourced surveillance and enforcement that is sufficient to identify safety issues at the earliest opportunity, before problems become widespread, and to hold relevant actors to account.

Acknowledgements

This review has depended upon the goodwill of the many people who have freely given of their time to share their experience, knowledge and opinions. They are listed in full in Appendix 3, and we thank them all. We also acknowledge the particular assistance of the following:

- David Bigland, Chair, UK Group of Approved Bodies
- Anthony Burd, Associate Director and Head of Built Environment, BSI Standards
- Peter Caplehorn, Chief Executive, Construction Products Association
- Dr Hywel Davies, Chair, Building Regulations Advisory Committee
- Chris Miles, formerly Chair, UK Group of Technical Assessment Bodies
- Suzannah Nichol, Chief Executive, BuildUK
- Mike Wood, Adviser to the All-Party Parliamentary Group for Fire Safety and Rescue

In addition, the review has been assisted by many people in both the Department for Levelling Up, Housing and Communities and in the Office for Product Safety and Standards in the Department for Business and Trade. We express our particular thanks to the immediate support team for the review in both DLUHC and OPSS.

Paul Morrell OBE (Chair)
Anneliese Day KC

Part I: Introduction and Executive Summary

1. Terms of reference

We are appointed by the Secretary of State for Levelling Up, Housing and Communities (hereafter "DLUHC"[2]), to address the question: "*How should the UK system for testing the safety of construction products and the use of data from the system be strengthened, to inspire confidence that those products are safe and perform as labelled and marketed when incorporated into construction work?*"

We are asked to do this by:
(1) mapping the system for testing, certifying, marketing, selling, re-testing and recalling construction products;
(2) assessing what does/could go wrong within this system; and
(3) recommending how the system should be strengthened.

The review is not limited to construction products intended for use in high rise residential (now "higher-risk") buildings, but the system for testing products not intended for use in construction is outside the scope of the review.

A full copy of the terms of reference is included in Appendix 2.

Post-dated note: the review and this report have a base date of December 2021. At that time, the version of the Building Safety Bill available for reference was that introduced into Parliament on 5 July 2021. The Bill was subsequently enacted on 28 April 2022, and although it incorporates changes made to the Bill during its passage through Parliament, there are no amendments that have a material bearing on the regulation or testing of construction products. So, for the purposes of this Report, and for simplicity's sake, reference is made to the Building Safety Act.

Similarly, the relevant schedule of the Building Safety Act relevant to construction products regulations, Schedule 11, was previously Schedule 9 in the Bill. Except for the re-numbering, the schedule is unamended from the version introduced in July 2021 so, again for simplicity's sake, references in this report are to Schedule 11.

More detailed updates are referenced in footnotes to this report but, save for these noted exceptions, neither the review nor this report take account of events after December 2021.

2. Structure of the report

This report summarises the conclusions of our review, and is presented in six parts:-

- Part I: Introduction and Executive Summary
- Part II: Mapping the Landscape
- Part III: Building a Safer Future – The Response to the Fire at Grenfell Tower
- Part IV: The Context for Reform – Objectives, Principles and Cross-cutting Issues

[2] The Ministry of Housing Communities and Local Government was re-named the Department for Levelling Up, Housing and Communities in July 2021, and the new title has been used throughout this report, irrespective of the date of reference. References to the "Secretary of State" are also to the Secretary of State for Levelling up, Housing and Communities, unless stated otherwise.

- Part V: Analysis of Gaps and Weaknesses in the System, and Options for Reform
- Part VI: Headline Summary of Recommendations and Conclusion.

Supplementary information is then included in a series of appendices.

3. Context

The over-arching context for the review is the major fire that occurred at Grenfell Tower on 14 June 2017 and its tragic consequences – the greatest loss of life in a residential fire in the UK since the Second World War.

The more immediate context is the work that has followed that fire, which has considered both what actually happened and what can and should be done now to ensure the safety of people in the buildings that they occupy. The principal outputs of this work have been:-

(1) The interim and final reports resulting from the independent review of building safety conducted by Dame Judith Hackitt[3] ("the Hackitt Review").
(2) The Government response to the Hackitt Review[4].
(3) The summary of responses to the Government consultation on Building a Safer Future[5].
(4) The Building Safety Act, first published in draft on 20 July 2020, introduced into Parliament on 5 July 2021 and enacted on 28 April 2022.
(5) More particularly, Schedule 11 of the Building Safety Act which gives the Secretary of State wide-ranging powers to make regulations changing the system by which construction products are currently assessed, marketed and regulated; and the secondary legislation which, by virtue of Schedule 11, was proposed to supplement the existing Construction Products Regulation. This was published as an indicative draft only, alongside the Bill[6].
(6) Records and reports related to the consultation, scrutiny and detail of the Building Safety Bill, including the Select Committee final scrutiny report[7], the Government response to that report[8] and the Impact Analysis.
(7) The Grenfell Tower Inquiry chaired by Sir Martin Moore-Bick, which was announced on 29 June 2017 and commenced hearings on 14 September 2017. The report of the findings of Phase 1, which addressed events on the night of the fire, was published on 30 October 2019; and Phase 2, which is investigating the wider circumstances of the fire, is still in progress as at the base date of this report.

Although the evidence in Module 2 of the Grenfell Tower Inquiry relating to the testing, marketing and sale of construction products is clearly the stimulus for this review, it is specifically not part of our terms of reference to assess that evidence, nor to establish the facts of what happened on 14 June 2017, nor to consider any aspects of culpability. Those are all matters for the Inquiry and the concurrent police investigation.

Any allegations made or implied in the Inquiry have therefore been anonymised in this report, and the approach that we have taken is that if those allegations are capable of being true then, whether or not they are subsequently shown to be well-founded, effective and proportionate measures that would reduce or eliminate the risk of them coming true in the future should be taken.

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[3] *The Independent Review of Building Regulations and Fire Safety*, interim report dated 18 December 2017 and final report dated 17 May 2018
[4] *Building a Safer Future - Implementation Plan*, dated December 2018.
[5] *A reformed building safety regulatory system – Summary of responses to the Building a Safer Future consultation*, MHCLG, dated April 2020
[6] Statutory Instruments 2022 No, Building And Buildings Construction Market Standards, The Construction Products Regulations 2022, published 14 October 2021 ("the indicative draft CPR22").
[7] *Pre-legislative scrutiny of the Building Safety Bill*, 24 November 2020
[8] *Building Safety Bill; Government response to pre-legislative scrutiny by the Housing, Communities and Local Government Select Committee*, July 2021

4. Approach

Although the product testing regime is the core subject of the review, it is clear that both testing and products are part of larger systems.

Testing, although a convenient shorthand, is just one part (and not invariably an essential part) of a conformity assessment system that has to be addressed in the context of what happens both upstream (product development, sampling etc) and downstream (factory control and series production, product selection and specification, storage and handling, assembly and installation, maintenance and operation etc) - with traceability being an issue throughout. The use of the term "testing regime" in our terms of reference, and throughout this report, is therefore taken to refer to this larger context.

Conformity assessment (the process of confirming that a product meets the requirements of relevant standards, as described in detail in section 12 below, which also draws the distinction between testing and certification) is itself then part of a larger National Quality Infrastructure – "*a structure of standards, agreements, codes and regulations designed to ensure that when we buy something – as businesses or consumers – we get exactly what we expect*"[9].

Products develop from raw materials to a basic product (insulation, for example), into a component (an insulated panel) into a system/assembly (cladding) and then into a completed building, with all of its systems and sub-systems, which must be built, commissioned, maintained and managed to serve its intended purpose.

It is also important to remember, both in the context of testing and the products themselves, that although one consequence of the fire at Grenfell Tower will understandably be a focus on performance in fire, products have to meet (and be assessed as meeting) other requirements relating to the basic requirements of a building. These include structural strength, toxicity, acoustic performance etc; but also, increasingly, qualities that do not relate directly to the life and safety of building users - most obviously issues of carbon, energy efficiency and the wider measures of sustainability; and just as the aims of regulations relating to construction products have widened, conformity assessment has also become more concerned with broader issues of consumer protection.

None of these objectives is exclusive of the others, and it does not reduce the urgency of considering matters of resistance and reaction to fire. It does, however, point to the need to consider all of those aims and objectives, and interactions between them, and to be aware of unintended consequences in changing any one part of the system.

5. Methodology

With the support of a designated team from within DLUHC and the Office for Product Safety and Standards from within the Department for Business & Trade (hereafter "OPSS" and "DBT" respectively)[10], we have proceeded principally by background reading, and seeking to discuss the relevant issues with as wide as possible a spectrum of organisations and individuals with a particular interest in the manufacture, assessment, specification, installation and regulation of construction products.

[9] *The Value of a National Quality Infrastructure*, UK Quality Infrastructure website https://ukqi.org/value-of-nqi/. See also https://www.gov.uk/guidance/the-uks-national-quality-infrastructure.

[10] At the time of drafting, the government department with responsibility for general product safety was the Department for Business Energy and Industrial Strategy ("BEIS"), which included the Office for Product Safety and Standards. Following departmental reorganisation in February 2023, those responsibilities were vested in the Department for Business & Trade ("DBT") and the latter title has been substituted in this report in the interests of currency.

Those discussions have generally been held on the basis of the "Chatham House Rule", and individuals are quoted in this report only with their consent.

We have also received and considered a number of written submissions.

Reference to the documents of primary relevance and interest is included in footnotes; and Appendix 3 includes a list of those who have given their time to assist the review, to all of whom we give our thanks.

We also charted the journey of products from raw material, through production, testing/assessment, marketing, selection, design, handling and installation to final use after their incorporation into construction works. This served as a constant reference to consider those points in a product's life cycle where trust in their performance might be built and protected - or lost.

6. Constraints

There have been constraints bearing on the ability of the review to reach a comprehensive and conclusive set of recommendations. Principal amongst these are:-

(1) Timing and a changing landscape

Dame Judith Hackitt has expressed the view that '*the system that covers product testing, labelling and marketing is at least as complicated as the entire regulatory system*'; but the time originally allocated for this review, and for the research and consultation necessary to complete it, limited the opportunities for making good gaps in data, and for holding more cross-industry events for consultation and feedback.

This review has also been conducted whilst there is still a considerable amount of uncertainty about a number of factors that are germane to the subject. These include:-

(i) Uncertainty remains about the arrangements to be put in place for conformity assessment following the UK's exit from the EU, and particularly in respect of product marking. This has been a particular distraction for the industry, and a distraction from the consideration of possible system improvements to take effect in the longer term. During the course of this review the implementation date for mandatory UKCA marking has been postponed from 1 January 2022 to 1 January 2023[11], but issues about capacity remain.

(ii) Both the Construction Products Regulation and the General Product Safety Regulations as applied in the EU are in the course of review and revision[12]. Subject to decisions on alignment, this is less relevant to Great Britain following withdrawal, but the reasons for revision may still be relevant, and the revisions themselves will be relevant in Northern Ireland as a result of the Northern Ireland Protocol.

(iii) The Building Safety Bill was in draft at the time of commencement of the review, and remained subject to change during its passage through Parliament whilst the Review was in progress. In addition, many of its detailed provisions were to be implemented by secondary legislation. Much of that has now been published in draft as well, including details of the requirements of the golden thread, the coverage of gateways 2 and 3, and

[11] Post-dated footnote: see also footnote 100 re further easements made in respect of UKCA marking.
[12] Post-dated footnote: proposals for amendment of the EU Construction Products Regulation were adopted on 30 March 2022 – see footnote 110.

a revised set of Construction Products Regulations, but again these are subject to consultation and change until they are passed into law.

(iv) Hearings on Module 6 of The Grenfell Tower Inquiry were in progress at the time of conducting this review and will be followed by further evidence from expert witnesses. This includes material of direct relevance to this review, given the announced intention of taking evidence on "*the adequacy of the current testing regime*". The Inquiry has (and requires) powers and access to resources and technical expertise that is far beyond the reach of this review, with the Inquiry website[13] referring to almost 280,000 documents. So, if new or different evidence emerges from future modules of the Inquiry, then recommendations made in this review in the absence of that evidence should be reviewed and may need to be revisited.

(2) Lack of data

Because there has, until the revelations of the Grenfell Tower Inquiry, been a relatively low level of scrutiny of the construction products sector, and very limited enforcement of regulations relating to its products, there is an equally limited dataset about the sector.

For example, as far as we have been able to discern there is, in the UK:-

- no comprehensive listing of companies engaged in the manufacture, import or distribution of construction products;
- no generally accepted standard classification system by which the industry and its products can be monitored and analysed;
- no analysis of the size of the testing/assessment market, nor of the structural characteristics of the sector (in terms of concentration for example) - and therefore limited understanding of its capacity to expand or of the impact on pricing of increased demand;
- no comprehensive database of products that have failed to meet their claimed level of performance, or which represent a risk of harm.

In their June 2021 report[14], the National Audit Office noted that, in respect of domestic product safety, OPSS "*inherited a regime lacking in good-quality national data*" and stressed the importance of data to assessing consumer risks, spotting problems as they arise, and substituting prioritised action for reactive responses to pressing issues. It may well be that the problems in the construction sector are far worse than for consumer goods generally, due to historically low levels of surveillance and enforcement activity. Although primary responsibility for the enforcement of the Construction Products Regulations has rested to date with local authorities, this will be part of OPSS's inheritance when it has access to more robust enforcement powers which the Government intends to introduce through secondary legislation.

In addition, the shortage of data identified by the NAO will represent a challenge to the new Regulator in the future, particularly in adopting a system of scrutiny based on levels of risk. This issue is being addressed (see section 36 below); but as well as being a problem for the Regulator it has been a problem for this review. We have been unable to refer to a sector-specific summary of construction products that have failed to comply in the past and which may therefore represent a risk in the future; and a review of safety notices issued over the first six-months of 2021 shows the focus to be on consumer products (and on toys and electrical equipment in particular).

Some Trading Standards Departments and local fire and rescue services can point to individual cases, but not to an accumulated database that can contribute to learning from the

[13] www.grenfelltowerinquiry.org.uk
[14] *Protecting Consumers from Unsafe Products*, NAO, June 2021.

past in a systematic, reliable and usable way, nor can they provide data that could be analysed to identify trends and particular areas of concern.

The EC Safety Gate (formerly RAPEX) also shows a narrow coverage, with only 113 entries over the 13 years between 2007 and 2020, and with the UK accounting for only three of those. Almost three-quarters of all alerts relate to carbon monoxide or smoke detectors, with no other product category accounting for more than four; and 60% of the notifications relate to products originating in China, with no other country accounting for more than four.

The consequence is that the most immediately relevant data concerning the sector comes from the evidence given in the Grenfell Tower Inquiry, and this is addressed in section 19 below as part of the consideration of demonstrated gaps and weaknesses in the current testing regime.

In summary, we have sought to take an evidence-led approach to this review as far as possible, but that has been significantly constrained by time, lack of data and the continuing uncertainties outlined above.

There is, of course, no perfect time to carry out any single operation of an exercise that has so many moving parts, and it is to be hoped that this review may contribute to finding a way ahead on some of the uncertainties. The timing issue does, however, create the need for some reiteration that is not possible in a one-off review. We therefore take it that, in line with good practice, our findings and recommendations will be revisited when the position on some of the current variables is clearer – particularly when the Grenfell Tower Inquiry is concluded; and that all propositions for change will be the subject of a detailed impact analysis and included in a full consultation process on any secondary legislation relating to construction products.

Any proposed changes also need to take account of the following:-

- the need for piloting in order to test practicality across the full range of thousands of different products;
- a realistic time for the transition from existing to new ways of doing business;
- the cost of implementation, and its proportionality to benefit (particularly bearing in mind that, for some products with a marginal return, additional cost could result in withdrawal from the market);
- the capacity of the system to accommodate additional demands made as a consequence of the proposition, including a requirement for additional knowledge and skills, and therefore for training.

7. Executive summary

7.1 Background

In his report at the end of Phase I of the Grenfell Tower Inquiry, Sir Martin Moore-Bick, concluded that the principal reason why fire spread so rapidly vertically up and around the tower was the presence of aluminium cladding panels with polyethylene cores. These acted as a source of fuel, with molten, burning polyethylene dripping down the face of the building igniting fires lower down. A further contribution was made by polyisocyanurate (PIR) and phenolic foam insulation boards behind the panels, and possibly by the components and detailing of the window surrounds.

The horizontal spread of fire was the result of fire breaking back into the building through the inevitable failure of the glass in the windows, with compartmentation within the building then being lost as a consequence of kitchen extractor fans deforming and some fire doors failing to close.

He also concluded that "*there was compelling evidence that the external walls of the building failed to comply with … the Building Regulations*".

So, irrespective of any issues of accountability, the conclusion reached was that products which were inappropriately selected, or which were wrongly installed, or which failed to perform as they should, and/or which should not have been approved for use in the first place were implicated in the tragedy.

Subsequently, in Module 2 of the Inquiry, evidence was presented suggesting default on the part of those manufacturing and assessing construction products, severely undermining confidence in the system by which such products are regulated and come to market. These allegations fall broadly into four categories:-

(1) failure by manufacturers to disclose all information relevant to the product and its assessment;
(2) failure on the part of those responsible for testing to follow proper procedures in conducting the assessment process;
(3) failure to ensure that certificates or classification reports were properly supported by the assessment process;
(4) failure by manufacturers to ensure that performance claims made for their products were limited to those that were supported by the assessment process, and were not misleading.

Given the sheer volume of incidents arising in evidence, it cannot be assumed that the issues are unique to the refurbishment of the Grenfell Tower, and indeed subsequent experience of investigating and remediating hundreds of buildings that incorporate products similar to those used in the Grenfell Tower suggests that the problem is widespread, certainly in relation to fire safety.

It is also indicative of inadequacies in the regime by which products are tested and assessed before being placed on the market (the system described by Dame Judith Hackitt as "*at least as complicated as the entire regulatory system that was mapped in* [her] *interim report*"), in the oversight of that regime and in regulatory surveillance and enforcement.

The purpose of this review is therefore to consider how confidence can be placed in that regime in the future and what needs to change to ensure this can happen - in short, how testing and the data derived from it can be restored as a public good.

7.2 The current regulatory regime

The main instrument by which building works are regulated is the Building Regulations 2010, as amended. As far as building materials are concerned, this requires them to be "*adequate and proper*", appropriate for the circumstances in which they are used, and prepared and used "*so as adequately to perform the functions for which they are designed*". Further details about products and their standards are then given in the Approved Documents, which provide statutory guidance on ways of meeting the requirements of the Building Regulations for some common building situations[15].

The main legislation through which individual products are regulated are the Construction Products Regulations ("the CPR")[16]. Originally implemented in the UK in 2013 through EU

[15] https://www.gov.uk/government/collections/approved-documents

[16] Note: in this report, the following terminology is used:-

- "CPR 305/11" refers to the Construction Products Regulation as it existed prior to the UK's withdrawal from the EU, and where the differentiation from the position after withdrawal is relevant.
- 'CPR13' refers to the secondary legislation establishing the surveillance and enforcement regime in the UK, and if it continues to apply in Northern Ireland.

regulations ("CPR305/11"), the CPR retains the effect of these regulations, substantially unaltered, in UK law following withdrawal from the EU.[17]

The CPR requires the manufacturers of products covered by the Regulations to make a declaration of the product's performance before it is placed on the market. This declaration must be backed by a process of "assessment and verification of performance" ("AVCP"). The process varies depending upon the nature of the product, with a graduated system ranging from a fairly simple self-performed check through to a more rigorous exercise conducted or overseen by independent Conformity Assessment Bodies, approved by the Secretary of State ('Approved Bodies'). This approval is given on the basis of accreditation by the United Kingdom Accreditation Service ("UKAS"), the National Accreditation Body.

There are 45 UK-based Conformity Assessment Bodies approved for this purpose[18] and, although UKAS also accredits others, references in this review to Approved Bodies relates specifically to those approved by the Secretary of State for the provision of services required by the CPR.[19]

Testing, where required, is conducted by reference to standards developed and agreed for adoption by the standardisation bodies belonging to CEN and CENELEC, the platforms for the development of European Standards, which include the 27 bodies of EU member states. Standards may subsequently be endorsed in a list published by the European Commission, becoming "harmonised standards". Following withdrawal from the EU, the UK has mirrored this by the listing "designated standards" – which, *ab initio*, include all harmonised standards as at the date of the UK's exit from the EU.

To reiterate the point, it is important to appreciate that the CPR applies only to products for which there are such designated standards.

The second element of the current regime is the surveillance and enforcement system which CPR305/11 required member states to put in place. This was implemented in the UK by the Construction Products Regulations 2013 ("CPR13"). These regulations designate as the enforcement authority the Local Authority trading standards officers (or "*any local weights and measures authority*") in England, Wales and Scotland, and any district council in Northern Ireland. They also set out the powers of enforcement authorities (and some specific powers for the Secretary of State) and define offences under the Regulations and their consequences.

7.3 Gaps or weaknesses in the current system

- 'The CPR' refers to the body of Construction Products Regulations as they stand at the December 2021 base date of this review, including the two separate instruments relevant to withdrawal, and including CPR13 where relevant to the context.
- 'indicative draft CPR22' refers to the secondary legislation proposed under the Building Safety Act and making further amendments to the CPR.

[17] Post-dated footnote: as at the date of publication, the Retained EU Law (Revocation and Reform) Bill to revoke (at the end of 2023) or make provisions relating to the interpretation, modification, restatement, replacement or updating of retained EU law, has passed through the House of Commons and reached Report stage in the House of Lords. See https://bills.parliament.uk/bills/3340, updated 14 April 2023. This report takes no specific account of the potentially far-reaching implications of this Bill.

[18] Post-dated footnote: as at the date of publication, the number of Approved Bodies accredited for conformity assessment services under the CPR has increased to 53. See Appendix 4 for updated list.

[19] Note: in this report, "Conformity Assessment Bodies" refers to all organisations accredited by UKAS for the performance of conformity assessment services. It includes Approved Bodies (see below) but has generally been used to refer to activities undertaken by all CAB's, including voluntary third-party certification.
"Approved Bodies" refers to the sub-set of Conformity Assessment Bodies which have been approved by the Secretary of State to provide services in connection with the Construction Products Regulations, and to their activities when acting in connection with the CPR. See Section 11 below for a fuller description of these bodies.

The susceptibility to failure of the process is attributable to matters that are either (a) systemic or (b) relate to individual conduct and performance.

Systemic issues include:

(1) **Coverage**. The most obvious gap in the current system is that only construction products for which there is a designated standard are covered by the Construction Products Regulation. The anecdotal estimate is that this accounts for about one-third of all construction products in manufacture – leaving (again anecdotally) 20-30,000 products unregulated.

(2) **Purpose**. The Regulation was primarily designed for the purpose of creating a level playing field for a single market, and not for ensuring a safe or sustainable product or building, nor anything else not specifically covered in an annex to the applicable standards. As a consequence, and with respect to our terms of reference, there isn't actually a specific "*UK system for testing the safety of construction products*": rather there is a system for assessing conformity to whatever performance requirements are set down in the standards.

(3) **Standardisation**. Everything depends upon the relevant standards (where they exist and are applicable): how a product is to perform, how that is to be tested or assessed, how Conformity Assessment Bodies (including Approved Bodies) are accredited and reviewed by UKAS, and how UKAS itself is reviewed. Although the framework by which standards are developed is a good one, the process can be slow, and the output insufficient and of variable quality. The result is that many standards are outdated, inconsistent or non-existent; and research conducted in 2020 on behalf of DLUHC questions the fitness for purpose of a number of standards critical for testing products for resistance and reaction to fire.

(4) **Complexity**. With five different routes and up to six steps through the system, the CPR assessment process is so complex that few people properly understand it, and there is a concerning disconnect between those involved in the assessment process and those who design and construct buildings. The criteria by which products are directed towards the different levels of this system are also unclear, and sometimes inconsistent. This renders the process opaque; and a system that cannot be readily understood is unlikely to be routinely observed and enforced, providing an opportunity for those who may seek to take advantage of a lack of transparency.

(5) **Capacity**. The whole system (for setting standards, conformity assessment and oversight) is overloaded and slow. This represents both a threat to quality and a barrier to reform; and there is a particular urgency in addressing capacity issues relating to the ending of recognition of CE marking in January 2023.

(6) **Enforcement**. Enforcement has been almost totally non-existent, so that bad actors feel that they can bypass the regulations without consequence. As far we can determine, 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). There is, however, no centralised database of regulatory investigations or enforcement actions. Nor is there a centralised database of products that might represent a risk. Without effective enforcement the market cannot function freely, fairly and safely; and it is not possible to judge how well the regulatory regime might work if it were effectively enforced.

Matters of individual or corporate conduct and performance reflected in the allegations made in the Public Inquiry are beyond the remit of this review. However, if failures of performance are as widespread as suggested, then this indicates that the current regime is failing to prevent them – whether in the coverage or processes of conformity assessment by Approved Bodies (or, for voluntary certification schemes, of Conformity Assessment Bodies acting outside the coverage of

the CPR); and/or the inherent limitations of the existing processes; and/or the accreditation, re-assessment and oversight of the Approved Bodies/CABs themselves by UKAS.

Beyond the assessment process itself, and irrespective of any strengthening of the regime, there will always be over-arching requirements for honest conduct, compliance with effectively enforced regulations and competent execution.

Our particular focus has therefore been on proposals that would underpin the assurance that should be provided by an effective system and that would ensure greater transparency.

7.4 Remedies proposed in legislation

As far as the regulation of construction products is concerned, the primary targets of the Building Safety Act, and the secondary legislation relating to the regulation of construction products proposed in the Act, are coverage and enforcement.

(1) Coverage

All construction products will be brought into the scope of the CPR by virtue of a “general safety requirement”. This is derived from the EU General Product Safety Regulation (“the GPSR” - also retained in UK law) but extends its principles from consumer goods to construction products, which are designed to function as part of a system rather than on a stand-alone basis.

In addition, some products not currently covered by the CPR regime can be brought within it by virtue of being covered by a new designated standard (or an existing standard newly recognised as “designated”); or by being added to a list of “safety-critical” products to be set out in regulations by the Secretary of State.

(2) Enforcement

Under the new regime, enforcement is to be strengthened by means of:-

- a new regulatory regime, including two new regulators: a National Regulator for Construction Products, based in OPSS within DBT, who will work with a new Building Safety Regulator based in the HSE; and
- requirements for manufacturers to share technical documentation and information with the National Regulator for Construction Products and/or enforcement authorities.

The ultimate objective must be to set clear requirements that call for honesty on the part of manufacturers in respect of full disclosure to the Approved Body conducting the assessment, in the Declaration of Performance, in technical information to accompany the product, and in all marketing information and other communications relating to the product, with a breach of any part of this duty being an offence subject to new sanctions available to the Regulator, and with effective enforcement action being taken where an offence is committed.

7.5 Comments on proposed legislation

(1) The general safety requirement

There can be no argument with the principle of manufacturers being required to make their products intrinsically safe. However, concerns about meeting this objective arise in relation to:-

- the practicality, proportionality and effectiveness of introducing a regulatory "catch-all" that captures all products and extends a principle primarily designed for stand-alone consumer goods to intermediate products intended to function as part of an assembly;
- the potential open-endedness of the requirement and the consequent difficulty for manufacturers to know how they can legitimately protect themselves against an equally open-ended allegation;
- the challenge to the National Regulator for Construction Products and enforcement authorities in surveilling the market without prescriptive measures of compliance; and
- the probability of an extended and expensive dispute as to who or what is actually responsible for the failure, given that any breach is most likely to be detected only in retrospect once the product is incorporated into the works.

Another way of covering all products would be to require all manufacturers to issue a Declaration of Performance in the way currently required of products regulated under the CPR. It is acknowledged that that is not without difficulties either and would not be sufficient without further protections being in place in respect of intrinsic risk. It would, however, address the more positive requirement of dutyholders[20] needing reliable information about the performance of products to establish their fitness for purpose before specifying and using them, rather than seeking to allocate responsibility after the event.

We therefore include in this report a recommendation that further consideration be given to extending the requirement for Declaration of Performance to all construction products (acknowledging that there would in turn need to be standards against which the products can be assessed), subject to consultation on the effectiveness of such a requirement in balancing benefit with burden.

(2) Enforcement

Regulatory clarity about a duty to act honestly, with any breach risking a significant sanction, should be welcomed by the majority of the industry, and our consultations suggest that this would be the case. In the words of one manufacturer faced with additional regulation, "*Please try enforcement first*"; so enforcement, as well as its potential as a deterrent to wrongdoing, is also an encouragement to those who play by the rules if it means they no longer have to compete with those who do not do so.

The issue of enforcement raises questions as to:

- how effective the new regime will be, given its added complexity, the fragmentation of responsibilities, and the extent to which it places a reliance upon Trading Standards officers – most of whom are not trained or experienced in the construction products sector, are already overstretched, and who demonstrate little enthusiasm for taking on a more active role in this market;
- whether and how the industry can be persuaded that enforcement will be both energetic and effective; and
- how regulatory continuity will be established in following products from manufacture to installation and use on site, given the split of responsibilities between the two new regulators.

[20] "Dutyholder" is used in this report to refer to all of those with primary responsibility for the design, construction and operation of all buildings, and therefore reliant on trustworthy information about construction products – and not just the roles created by the Building Safety Act for higher-risk buildings.

This final point is of particular relevance if the definition of the golden thread for regulatory purposes runs only from the design stage. In those circumstances, any information required about product performance that is required to produce the golden thread will be a matter for the industry, possibly supported by official guidance. This is linked to the whole issue of traceability, which is considered in section 34 of this report, but the principle must be that there is a traceable chain of custody throughout a product's life cycle.

Further thought about complexity and the provision of training for enforcement is needed if these new regulations are not to continue to suffer from the lack of enforcement that has existed to date.

(3) Safety-critical products

Viewed in isolation, the listing of individual products as safety-critical faces significant challenges in definition. For example, the same product can be safe in one use, and unsafe in another; and there need to be standards against which products can be assessed, and measures to ensure that they are not used for purposes for which they have not been assessed as fit.

However, if genuinely diagnostic, workable and legally robust criteria can be set for categorising products in certain applications as safety-critical (and the creation of such a distinct and comprehensive category covering all higher risk products matching those criteria is made an objective), then we believe that it would put the regulatory focus where it should be: on the potential for serious harm. And if defined in terms of the contribution that products make to safety-critical *construction*, their vulnerability to failure and the consequences of failure, that would lead to a substantive improvement in building safety – and to greater potential for the risk of harm to be addressed before the event.

7.6 Comments on matters currently missing from proposed legislation

Many of the issues arising in the course of our review are not matters addressed in legislation as currently contemplated. These include:-

(1) **Government, UKAS and the oversight of CABs**. We would have expected there to have been a more definitive understanding established between Government and UKAS as to what might have gone wrong in the process that led to failures at the Grenfell Tower, insofar as that might relate to conformity assessment, than appears to be the case. This may be due in part to the nature of the remit given to UKAS (which is not a regulator, and has no enforcement powers), but it raises questions about Government's expectations of UKAS and the way it manages its relationship with UKAS as its sponsor. It also points to the need for a change in the way that active oversight of the CABs is conducted, to something more dynamic and less predictable.

    We believe there is also a place for a more ambitious role for UKAS, without compromising its impartiality: one in which UKAS informs itself and Government about strategic issues such as capacity, the health of the testing market (which is showing signs of consolidation), lessons and themes collected together from individual assessments, how third-party certification schemes could be strengthened, and so forth.

(2) **The purpose of UKCA marking**. Taking a wider view, the draft legislation does not take the opportunity to question the fundamental purpose of marking, nor the potential to both simplify the process and make it more meaningful if continuing alignment with the EU single market is not an objective. With freedom to develop standards to suit national priorities, a mark that signifies conformity with those standards could stand as a mark of safety, or quality, or whatever those priorities might be.

(3) **The assessment process**. The detailed assessment process (the AVCP system) needs to be both simplified and strengthened. However, by taking the existing Construction Products Regulations substantially in status quo, adding to it, and creating two additional levels of regulation (the general safety requirement and safety-critical products) the system will become *more* complicated. We have therefore proposed a series of graduated options, the culmination of which would be:-

- to apply the regulatory AVCP system only to products that are listed as safety-critical;
- to redefine the AVCP system as a single level comprising the six steps of the existing AVCP system level 1+ with the addition of a requirement for labelling/traceability;
- to require all safety-critical products to pass through all seven steps, unless any one of them is impractical because of the nature of the product;
- for other products, to rely upon the general safety requirement, reinforced by standards and guidance which aid compliance;
- to set a minimum standard for all third-party voluntary schemes, so that they replicate or surpass the rigour of the regulatory AVCP system, as redefined above;
- to reserve technical assessment for safety-critical products for which there is no designated standard, as a transient provision until such time as a standard has been developed.

The effect of these changes would be to raise both the ceiling and the floor of the system, making the assessment of safety-critical products more stringent, whilst leaving less critical ones to the general safety requirement, so that (as above) the regulatory focus would be on products from which real harm might result in the event of failure.

(4) **Conformity Assessment Bodies**. With limited exceptions, CABs have not demonstrated any obvious sense of a need for change (or even critical review) in the wake of the fire at Grenfell Tower. We believe there should be a clearer statutory duty upon CABs to be aware that they are acting in the public interest when carrying out the conformity assessment process - whether regulatory or voluntary. This is in addition to our recommendation that there should be a duty to warn the National Regulator for Construction Products where they suspect a manufacturer of seeking to manipulate the system or make a false Declaration of Performance.

There would also be value in the creation of an Oversight (or Impartiality) Committee to ensure both that voluntary third-party certification schemes are operated with sufficient rigour and that manufacturers are dealt with efficiently and fairly. Depending upon the future role of UKAS, this could be part of their oversight function or a different approach could introduce a greater degree of self-regulation by the CABs themselves.

(5) **Product manufacturers**. There are also two significant opportunities for self-regulation on the part of product manufacturers:-

- increased use of voluntary third-party certification schemes (some of which are currently more rigorous than the regulatory process), but with a base standard no lower than the regulatory regime;
- the potential for the Code for Construction Product Information developed by the industry to grow into something equivalent to the Advertising Standards Authority Code, with a view to resolving most low-level infractions without the Regulator needing to intervene.

(6) **Government procurement**. Government should use its buying power as an incentive to adopt good practice by setting out how the following could be accepted as criteria in consultant, contractor or product selection:-

- designers and contractors demonstrating how they propose to produce safe building outcomes, approaching the building as a system;
- designers specifying and contractors procuring products from suppliers who are committed to complying with the Code for Construction Product Information;

- contractors signing up to the *Building A Safer Future Charter* and committing to verification.

(7) **A joint Government/industry action plan**. The success of the Building Safety Act depends upon a certain amount of "machinery" being in place, most of which should primarily be the business of industry, but which will call for a continuing engagement by Government. Examples include:-
- an awareness/education programme to reconnect the world of design and construction with the world of standards, testing and certification, and to promote awareness of the process by which products are regulated and assessed for conformity;
- the prioritised review of product and testing standards including the development of new standards where necessary, the elimination of flaws and inconsistencies in existing standards and the means by which standards are developed and kept up to date;
- guidance on the preparation of risk assessments in the context of the general safety requirement, and the consideration of whether new standards would support compliance with that requirement;
- the use of AI/computer modelling as alternatives to physical testing;
- standardised testing documentation;
- protocols and digital standards for information management via the golden thread;
- industry standards for product labelling;
- mechanisms to manage product substitution;
- developing, promoting and monitoring voluntary third-party certification schemes;
- promoting and monitoring use of the Code for Construction Product Information;

Progress on the programme should then be the subject of a six-monthly report to the Secretary of State.

(8) **Body of knowledge**. The safety of a building does not just relate to fire, and issues relating to structure are as important. However, the body of knowledge about fire in particular is as fragmented and dispersed as the many organisations engaged in this specialism. This body of knowledge needs to be pulled together as part of the joint action plan, made accessible and kept under review, with a centre of excellence and the public interest at its core.

The critical need for industry engagement and for a more comprehensive and coherent body of knowledge renforces the vital importance of Government continuing to engage, at the right level and in a practical way beyond the role of legislator and regulator, in the programmed development of the knowledge, skills and tools by which building safety will be more securely delivered.

7.7 Concluding comment

Amongst the least edifying spectacles of the Grenfell Tower tragedy have been the arguments deployed by successive parties in denying or deflecting responsibility. It is for the Public Inquiry to investigate and report on the failings that occurred and by whom, but there are some truths that should be taken as evident:-
- that it is for product manufacturers to develop products that do the job expected of them, and to market them honestly, making no false claims;
- that it is for Conformity Assessment Bodies to test and assess those products against defined specifications, impartially and independently, so that those who must rely upon performance claims can do so with confidence;
- that it is for designers to choose products with the performance that is fit for purpose, and then design them into the works so that the performance can be achieved;
- that it is for constructors to bring everything together with the same objective in mind - using imagination to find better ways of doing things by all means, but not, in a careless moment, throwing away all of the good work that has brought the product and design to that stage in

order to save cash in the short-term, leaving the building owner and occupiers with a problem in the long-term;
- that it is not for regulators or enforcement authorities to act as the industry's quality assurance department and take responsibility for every infraction anywhere in the system, but it is their vital role to keep a watchful eye out for non-compliance, and to aid compliance;
- that it is also for regulators and enforcement authorities to see that regulations are enforced where necessary - and particularly where they are wilfully ignored or carelessly disregarded; and
- that all of the above depends upon clear regulatory requirements and standards that deliver the desired outcome.

Future reforms should ensure that such principles are reiterated and reinforced. On the basis of the engagement undertaken for this review, we believe that they would be supported by the great majority of the industry.

Part II: Mapping the Landscape

Note: in this section, and subject to the boxed note at section 1 above, the status quo is taken as the position as at the base date of this report - that is, after exit from the EU but before the enactment of the Building Safety Act and the related revisions to the Construction Products Regulation.

8. Industry structure

8.1 Construction generally

In 2019, the headline statistics of the UK construction industry, including contracting, professional services and product manufacturing, were[21]:

- Number of firms: 407,754
- Number of people employed: 2,243,000 (plus 843,000 self-employed, primarily in contracting)
- Size distribution of firms[22]:

	by number	by turnover	by employees
• micro (less than 10 employees)	94%	42%	42%
• small (10-49 employees)	5%	21%	18%
• medium (50-249 employees)	1%	13%	13%
• large (>250 employees)	0.1%	21%	28%

- Total UK turnover: £432bn, representing 8.8% of UK Gross Domestic Product (GDP).

More important than the industry's statistics, however, are the realities of its trading conditions and the business models by which it operates in response to the forces of demand and supply. These forces, which have been the subject of constant studies, do not excuse the inexcusable: incompetence should not be tolerated, and there should be no hiding place for misconduct. They do, however, mean that propositions for change, including the expectation of a change of culture, are likely to succeed only if they are rooted in an appreciation of the powerful business drivers that the industry's operating model responds to.

These drivers and operational responses can be summarised as follows:-

(1) a pattern of demand that is both diverse (from small refurbishment projects to huge new build infrastructure) and volatile (as the capital investment tap is turned on and off in response to economic cycles), compounded by constant bespoke variation of clients' requirements;

(2) an industry that is consequently reactive, waiting for the next enquiry before equipping itself to respond;

(3) fragmentation within the industry, both in terms of the number of businesses and the way it organises itself, with fractures between design and construction management, between the management of construction and its execution, and between those who design and construct buildings and those who occupy them – with the critical consequence that nobody owns the whole process;

(4) an industry that is not dominated by a small number of major players in the same way as more concentrated industries (the turnover of the largest UK contractor is about 15% of the turnover of the largest supermarket, and the market share of the top 5 contractors is less than 20%, compared with more than 60% for the top 5 supermarkets);

(5) a high dependence upon subcontracting;

[21] Source: DBT, based on ONS data.
[22] Source: DBT Business population statistics for 2019.

(6) a highly mobile workforce, with a high proportion of self-employed (and, to date, a significant proportion of migrant labour), so investment in training is a particular casualty of market failure;
(7) relatively low barriers to entry, with working capital largely provided by the industry's customers;
(8) notwithstanding low barriers to entry, relative protection from the high levels of foreign competition that have transformed other industries;
(9) low levels of innovation, including slow take-up of industrialisation and digitalisation;.
(10) a limited understanding and appreciation of how built assets actually create value, on the part of both the demand and supply sides, with the result that lowest initial cost becomes the principal driver;
(11) consequently high levels of competition at low margins, often in the expectation that a margin can be created or increased by "playing" the terms of contract later, by driving down suppliers' prices, or by product substitution;
(12) the consequent prevalence of opportunistic tendering within the supply chain, rather than the assembly of a settled team that can strive for continuous improvement;
(13) the absence of a feedback loop by which learning can be collected and disseminated; and
(14) low levels of independent oversight of quality assurance and compliance.

There are well-recognised market failures in capital investment, education and training, standard-setting, research and development, post-occupancy evaluation and continuous improvement - and this includes the absence of any incentive to go back to buildings and assess (by physical testing if necessary) how materials perform over the longer term.

These causes and effects interact: if demand is both diverse and volatile, then businesses will limit investment in any fixed resource (whether plant or people) that they may not be able to keep constantly employed - hence the reliance on subcontracting. Similarly, businesses will be reluctant to invest in solving a problem on one project only to find that they may never be asked to solve it again - hence the low levels of innovation.

The issue of lowest cost has attracted particular attention in the context of the fire at Grenfell Tower, and its impact on the conduct of the industry (and its customers) is undeniably systemic.

So, to the extent that a whole industry can be said to possess a culture (and, indeed, to the extent that such a diverse sector that represents almost 9% of GDP can be said to be a single industry), it is inevitably shaped by these forces.

8.2 The construction products sector

The difficulties of accessing authoritative data extend to data relating to the construction products sector. However, a combination of research conducted on behalf of DLUHC[23], generally derived from interpretation of DBT and ONS data, and updated and additional information provided by DBT and the Construction Products Association ("CPA" - the products sector's umbrella trade association"), suggests the following estimated summary of the nature and scale of the sector as at 2019[24]:-

(1) Number of firms manufacturing in the UK: 21,274 (about 17% of UK manufacturing firms)
(2) Number of people employed in the sector: 324,000
(3) Size distribution of firms:

[23] *Construction Industry Products Market Assessment and the Implications for the new Regulator*, Dr Steve Sheppard, Adroit Economics Ltd, September 2020. Note that the sector statistics in this report are based on the Standard Industrial Classification codes. A number of these codes describe sectors that are broader than construction products, so in these cases a proportion of businesses in that SIC code have been included in the estimate, based on a review of published product sales data and comparison with similar estimates made by the CPA.
[24] *ONS Annual Business Survey*, 2019.

	by number	by turnover	by employees
• micro (less than 10 employees)	67 %	4 %	12 %
• small (10-49 employees)	25 %	22 %	36 %
• medium (50-249 employees)	7 %	29 %	20 %
• large (>250 employees)	1 %	45 %	32 %

(4) Number of UK firms producing products covered by the Construction Products Regulation: 5,000-10,000
(5) Number of UK firms producing products covered by voluntary certification schemes: 10,000 – 12,000
(6) Number of firms importing construction products into the UK (including merchants and manufacturers importing products or components): "*possibly as high as 20,000*"
(7) Total UK production including amount exported: £62.5bn (11% of UK manufacturing output)
(8) UK output exported: £7.7bn (12% of UK production)
(9) Total UK consumption: £73bn
(10) UK consumption of imported products: £18.1bn (about 25% - so 75% of construction products used in the UK were made in the UK).
(11) Only two product categories account for more than 5% of imports: electrical wires (11%) and electrical lamps and fittings (6%), with the balance spread across more than 90 categories.
(12) UK consumption purchased from wholesalers/retailers: 25%

About 40% of the firms manufacturing in the UK are in the "doors, windows and openings" product category – a total of 9,330 firms, mostly micro or small carpentry/joinery businesses.

Even when expressed as ranges, these figures cannot be regarded as definitive. In addition to the problems posed by imperfect classification systems and data sets, some products (steel, metalwork, paint etc) are not destined exclusively for construction and their output is not always disaggregated by sector.

9. The legal framework

9.1 Building Regulations

Building Regulations and Building Control are devolved matters. In England, the primary instrument for the control of building work (whether a new building or making a material change to an existing building or its use) is the Building Regulations 2010, made under powers provided by the Building Act 1984.

Broadly speaking, the system for building regulations (as distinct from product regulations) in Northern Ireland and Wales mirrors the regulatory system in England, whereas Scotland has its own system. As we are commissioned by the Secretary of State in DLUHC, and provisions of the Building Safety Act as they relate to building regulations apply in England, our review has not extended to examining the devolved regulatory systems. The extent to which the Devolved Administrations follow suit will be policy decisions for the respective nations; and we assume that there will be further engagement with them prior to wider consultation or implementation.

In England, the only direct reference to products (or "materials") in the Building Regulations is in Regulation 7, which reads:

> *Building work shall be carried out … with adequate and proper materials - which*
> *(i) are appropriate for the circumstances in which they are used,*
> *(ii) are adequately mixed or prepared, and*

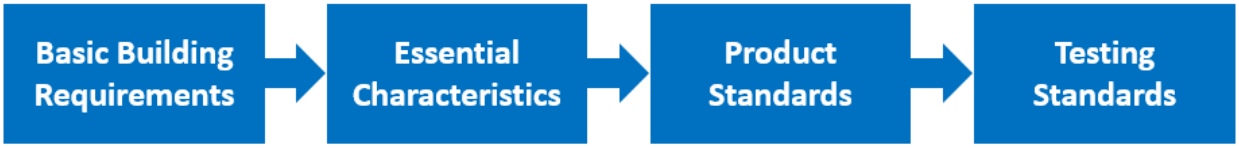
(iii) are applied, used or fixed so as adequately to perform the functions for which they are designed …

There are, however, other aspects of the Regulations which have particular relevance to the regulation of products (as well as that being implicit in the fact that almost all building work will include the use of materials). The first of these is that the Regulations set out, in Schedule 1, the requirements that all building work must meet. These requirements (referenced to the relevant parts of the Regulations) can be summarised as:

A. structure;
B. fire safety;
C. site preparation and resistance to contaminants and moisture;
D. toxic substances;
E. resistance to the passage of sound;
F. ventilation;
G. sanitation, hot water safety and water efficiency;
H. drainage and waste disposal;
J. combustion appliances and fuel storage systems;
K. protection from falling, collision and impact;
L. conservation of fuel and power;
M. access to and use of buildings;
N. glazing – safety in relation to impact, opening and cleaning;
O. overheating;[25]
P. electrical safety.

With the exception of a few wider objectives (for example, in relation to acoustic protection, energy efficiency and accessibility), these requirements are all concerned with "*securing reasonable standards of health & safety*", and the obligation to comply with the full list of requirements is generally limited to that purpose.

The relevance to product regulation is that, with some changes of terminology and coverage, the "*basic requirements of construction*" and a product's intended use should provide the framework within which the essential characteristics of the product necessary to deliver those requirements are defined in standards - and then in turn how those characteristics are to be assessed and confirmed.



An understanding of how these parts of the system should interact is therefore an essential precursor to making proposals for change, with the risk of intervention in any one part of the process leading to unintended consequences.

Other features of the Building Regulations relevant to this review include:-

(1) the requirement to give notice of intention to commence building work and to submit plans - which are relevant to the "gateways" for higher-risk buildings introduced in the Building Safety Act;
(2) exemptions from the requirements to give notice or deposit full plans, or obtain a completion certificate and allowing self-certification where work is to be undertaken by Competent Persons, as defined and scheduled in the Regulations;
(3) provisions relating to the use of calculation (re CO2 emissions, water consumption and energy performance); and

[25] Post-dated footnote: part 'O' (Overheating) has been introduced subsequent to the base-date of the Report.

(4) provisions relating to testing (re sound insulation, mechanical ventilation and air-tightness).

In addition, the Approved Documents set out statutory guidance on a number of tests and the certification for products relating to compliance with the requirements of the Building Regulations; and a local authority may also require testing or sampling of work to establish compliance with the Regulations.

Collectively, these provisions therefore introduce the concepts of concessions for competence; the calculation of some aspects of building performance; the principle of testing work in place; and powers to sample materials or test completed work to establish compliance.

9.2 Construction (Design and Management) Regulations 2015

The Construction (Design & Management) Regulations 2015 ("the CDM Regulations") are the main set of regulations for managing health, safety and welfare when carrying out construction projects. Although the details of their application may differ according to sector (commercial or domestic) and scale (single or multiple designers and contractors), the Regulations apply "*to the whole construction process on all construction projects, from concept to completion*"[26].

The Regulations establish and require the appointment of a series of dutyholders, each with defined duties, which in summary comprise[27]:-

- **Clients**. Commercial clients are under a specific duty to make suitable arrangements for managing a project, making sure that other dutyholders are appointed, sufficient time and resources are allocated, and relevant information is prepared and provided to other dutyholders; that the principal designer and principal contractor carry out their duties; and that welfare facilities are provided. CDM does also impose duties on domestic clients, although these will normally be transferred to the Designer and/or Contractor, as appropriate.
- **Designers** are under a duty, when preparing or modifying designs for a building, product or system, to identify, eliminate, reduce or control foreseeable risks that may arise during construction or the maintenance and use of a building once built. The definition of "designers" can include tradespeople if they carry out design work.
- **Principal Designers**. For projects involving more than one contractor, the Principal Designer must plan and manage health and safety in the pre-construction phase of the project, identifying, eliminating or controlling foreseeable risks. This function is usually (although not necessarily) allocated to the lead designer.
- **Contractors** are under a duty to plan, manage and monitor construction work under their control so that it is carried out without risks to health and safety. This includes the preparation of a construction phase plan, unless a Principal Contractor is appointed.
- **Principal contractors**. For projects involving more than one contractor, the Principal Contractor is under a duty to plan, manage, monitor and coordinate health and safety in the construction phase of a project, including the preparation of the construction phase plan.
- **Workers** on a construction site are to be consulted about matters which affect their health, safety and welfare; and are under a duty to take care of their own health and safety and others who may be affected by their actions, and to report anything which is likely to endanger health and safety.

There are also more general obligations requiring dutyholders to have the skills, knowledge and experience to perform their roles in a way that secures health and safety; to obtain or provide the information necessary for all to perform those roles; to cooperate, coordinate and communicate clearly with others engaged on the project; to put in place effective supervision and training where individual skills are still to be accumulated; and to apply throughout "the general principles of

[26] Source: *Managing Health and Safety in Construction: Construction (Design and Management) Regulations 2015 - Guidance on Regulations*, HSE publication L153, published 2015.
[27] *Ibid.*

prevention" (principally avoiding risks where possible and evaluating those that cannot be avoided and controlling them at source).

These duties and roles therefore foreshadow those enshrined in the Building Safety Act, which builds upon the evolution of the CDM Regulations themselves and upon a maturing understanding of what managing for health and safety means since the Regulations were first introduced in 1995. They also presage the Building Safety Act and the golden thread in requiring key information relevant to the health, safety and welfare of anyone carrying out subsequent work on the building to be passed on in the form of a health and safety file.

In extending the principles to whole life building safety, the Hackitt Review recommends that the roles of dutyholders are defined in a way that complements those existing under the CDM Regulations. The particular issue that arises for products is the duty owed by product manufacturers, and particularly the extent to which work on the development or application of products might represent 'design' for the purposes of CDM Regulations and their extension into the new regime.

As for any matter relating to the interpretation of legislation, this would ultimately be a matter for the Courts, and there will be questions of degree. However, the pragmatic line (and the one generally adopted by the HSE) is that the manufacturer of any products produced in series production would fall outside the definition of designer under the CDM regulations. Similarly, any such product could be "tweaked" for the purposes of a particular project (for example by varying dimensions), without conferring the duties of a designer on the manufacturer. Where, however, a product is specifically developed for an individual project, or the modification of a product for an individual project goes beyond "tweaking" (and particularly if discussions take place with the manufacturer about adapting the product for the project) , then the manufacturer will be considered to be a designer within the terms of the CDM regulations.

9.3 General legal principles covering product liability, mis-selling etc

The primary instrument governing construction products prior to the enactment of the Building Safety Act is the Construction Products Regulation, which was retained in UK law, substantially unamended, on exiting the European Union. It will be complemented by regulations enabled by the Building Safety Act, and this is considered in more detail below.

Before considering the CPR itself, we address the possible relevance of other legislation that regulates the quality or performance of products more generally, or the way that they are marketed and sold. Acknowledging that any abbreviation of legislative instruments should be treated with caution, a summary of those with possible relevance to this review follows.

(1) General Product Safety Regulations 2005

The General Product Safety Regulations ("GPSR") require all products intended for use by consumers to be safe in their normal or reasonably foreseeable usage. There are also specific regulations for some product sectors, such as toys and furniture, setting out essential safety requirements. Where there is crossover with the GPSR, the product-specific legislation usually takes precedence.

Manufacturers[28] placing products on the UK market need to demonstrate that they comply with relevant safety requirements. This involves minimising the risks associated with the product,

[28] Many of the obligations created by the legislation cited in this section of the report extend, with some variation, beyond manufacturers to other "economic operators" including distributors, importers, others in the chain of custody, anyone adding their own trademark to a product, or representatives acting on their behalf. For the purposes of this report "manufacturers" is deemed to include all such others, as relevant, and it is clearly essential that the activities of them all are subject to the same regulations and the same degree of surveillance and enforcement.

generating and keeping records of associated technical documentation, placing appropriate labelling on the product, and providing consumers with the information they need to assess and manage risks in use.

Local Authorities, through their Trading Standards Departments (or District Council Environmental Health teams in Northern Ireland), have an advice and guidance role in assisting manufacturers to comply with the law. They are also the enforcement authorities, and are responsible for conducting market surveillance by examining and testing products to check they are safe, and for investigating allegations of non-compliance. They have a suite of powers to enter premises, inspect goods, issue notices, obtain evidence, request technical documents and more; and when manufacturers fail to meet their safety obligation, Trading Standards have powers to take appropriate action. This ranges from requiring corrective action by the manufacturer and/or product recalls (for which there is a code of practice as guidance for manufacturers[29]) to prosecuting serious offences where warranted.

Committing an offence exposes both the company and any director or manager who is implicated in the offence to prosecution, with the penalty on conviction being imprisonment and/or a fine.

As noted, however, the GPSR is primarily designed for consumer protection, and relates only to products intended for use by consumers - with “consumer” being defined as a private individual acting outside a business. Whilst there may be some scope for legal argument that this could extend to products built in by a contractor and then “used” by consumers when the building is occupied, that is far from certain, and even then the situations in which it might apply are likely to be limited: for example, a fire door might be argued as being used by consumers, but the lintel above the door could not be.

It should also be noted that the GPSR as it originated is currently under review in the EU, with a view to updating and modernising the general framework to “*preserve its role as a safety net for consumers … and ensure a level playing field for businesses*”[30]. Particular objectives of the exercise include the development of standards in support of the general safety requirement, so that a product which conforms to such a standard is presumed to be compliant; taking into account any environmental risk posed by products; greater consistency between market surveillance rules for harmonised and non-harmonised products; improved traceability and effectiveness of product recalls; and addressing a lack of market surveillance stemming from resource constraints in member states.

(2) Consumer Protection Act 1987

Under the Consumer Protection Act 1987, manufacturers also have a civil liability for their products in addition to a criminal one, and can be sued for compensation if one of their products is unsafe and causes personal injury or death, or damage to private property. This adds the possibility of civil proceedings being pursued, irrespective of any criminal proceedings relating to safety matters.

(3) Consumer Protection from Unfair Trading Regulations 2008

These Regulations replaced most provisions of the Trade Descriptions Act, and control unfair practices that might be used by traders when dealing with consumers. They apply to commercial practices relating to products (which includes goods, services and digital content) before, during and after a contract is made.

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[29] PAS 7100:2018 - Code of practice on consumer product safety related recalls and other corrective actions: Part I: Business, Part II: Regulators, 31 December 2019.

[30] European Commission Proposal for a Regulation of the European Parliament and of the Council on general product safety, amending Regulation (EU) No 1025/2012 of the European Parliament and of the Council, and repealing Council Directive 87/357/EEC and Directive 2001/95/EC of the European Parliament and of the Council, 30 June 2021.

The Regulations also prohibit practices that are considered to be unfair; the use of obscure or ambiguous language; misleading actions or material omissions that might cause the consumer to take a buying decision that they would not have taken otherwise; and certain aggressive selling practices. Breach of any of these prohibitions amounts to a criminal offence.

The Regulations are also one of two important pieces of legislation that the Advertising Standards Authority ("ASA") has regard to in considering whether a marketing communication is misleading, aggressive or unfair to consumers, and consequently whether it breaches the codes operated by the ASA. See section 9.3(7) below.

(4) Trade Marks Act 1994

The Trade Marks Act protects businesses and their brands by creating a range of offences to deal with the issue of counterfeit products. This legislation is familiar to Trading Standards Officers and the penalties for offences are significant: up to 10 years imprisonment and/or an unlimited fine.

Because of a lack of data in the sector, it has not been possible to make an assessment of the extent to which counterfeiting (which also creates risk for consumers, of course) may be a problem in construction, but this legislation would extend to construction products that are subject to Trade Mark registration.

(5) The Business Protection from Misleading Marketing Regulations 2008

These regulations are the second piece of legislation of particular importance to the operation of the ASA code, covering business-to-business (as distinct from business-to-consumer) marketing; and they are the means by which advertising standards are enforced.

Here too the Regulations prohibit misleading marketing communications which are - in any way, including their presentation - likely to deceive the businesses that they reach and affect their economic behaviour, or to injure a competitor. Specific regulations lay down conditions about comparative advertising.

The enforcement authorities for the purposes of the Regulations are the Competitions and Markets Authority and Local Authority Trading Standards Departments (in Great Britain) and, in Northern Ireland, the Department of Enterprise, Trade and Investment; and they have considerable powers - to obtain information, to make test purchases, to enter premises, and to investigate.

Breach of these prohibitions amounts to a criminal offence, and where an offence is committed by a body corporate, an officer of the company is also at risk of prosecution and punishment. A person guilty of an offence will be liable to a fine and/or imprisonment.

(6) The Fraud Act 2006

By Sections 2 and 3 of this Act, a person is guilty of fraud if they dishonestly make a false (untrue or misleading) representation or fail to disclose relevant, required information with the intention of making a gain, or causing a loss to another, or exposing another to risk of loss.

A number of Trading Standards Departments are known to have used the Fraud Act in a range of consumer protection cases to complement their suite of enforcement powers, but the Act does not confer any investigatory powers on the Regulator (such as the ability to enter premises, seize documents and products etc); nor does it provide any powers to require manufacturers to correct or withdraw products from the market, even where fraud has been committed and the product presents a risk.

(7) Advertising Standards

The Advertising Standards Authority is an independent non-statutory organisation. It cannot interpret or enforce legislation, but it enforces two Advertising Codes published by the Committee of Advertising Practice (CAP) and the Broadcast Committee of Advertising Practice (BCAP)[31], with the objective of promoting and enforcing high standards in marketing communications and ensuring that the system operates in the public interest. It states as a purpose of the code that it "*supplements the law, fills gaps where the law does not reach and often provides an easier way of resolving disputes than by civil litigation or criminal prosecution*". In many instances it broadly reflects legislation, and both the rule-setting by CAP/BCAP and the decisions of the ASA are subject to judicial review.

It is noted here as a widely recognised and respected example of a self-regulatory organisation, for its general relevance to claims made in the marketing of products, and for its particular relevance to a code of practice for product information proposed for the construction industry (see section 33 below).

The well-known central principle for all marketing communications is that they should be "legal, decent, honest and truthful". More specifically, they must not materially mislead consumers or be likely to do so, for example by:

- omitting material information – that is, information that the consumer needs to make informed decisions in relation to a product;
- presenting information in an unclear, unintelligible, ambiguous or untimely manner;
- implying that subjective expressions of opinion are objective claims;
- exaggerating the value, capability or performance of a product (although "puffery" that the average consumer is unlikely to take literally is permitted, provided it is not likely to mislead); or
- including false information.

Claims made in marketing communications that are likely to be regarded as objective must be backed by documentary evidence, and may be regarded as misleading in the absence of adequate substantiation.

Whether the omission or presentation of material information is likely to mislead depends on the context, the medium and, if the marketing communication is constrained by time or space, the measures taken to make that information available by other means.

There are specific provisions about comparisons with competitors, and about environmental claims - which, in addition to the duty not to mislead, must be based on the full life cycle of the product, unless the marketing communication states otherwise, and must make clear the limits of the life cycle.

The ASA investigates and rules upon any complaints against marketing communications in both broadcast and non-broadcast media. There is a compliance team tasked with ensuring that marketing communications comply with the code, enforcing rulings, and acting against anyone that persistently breaks the code.

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[31] For non-broadcast advertising: *The CAP Code - The UK Code of Non-broadcast Advertising and Direct & Promotional Marketing*, The Committee of Advertising Practice, 12th Edition - www.asa.org.uk/uploads/assets/47eb51e7-028d-4509-ab3c0f4822c9a3c4/adf7ccc3-7f09-4fcd-9502a60ffbf4a786/The-Cap-code.pdf.
For broadcast advertising: *The BCAP Code - The UK Code of Broadcast Advertising*, the Broadcast Committee of Advertising Practice, version 1.2.41 - www.asa.org.uk/static/846f25eb-f474-47c1-ab3ff571e3db5910/f2291dfb-85df-42a4-bf380d52138f26ec/BCAP-Code-full.pdf.

If a marketing communication breaks the code, the marketer responsible is required to amend or withdraw it. If they do not, the sanctions available to the compliance team in matters relating to non-broadcast media (the more relevant code for the marketing of construction products) include:

- Notice to media: CAP can issue alerts to all media, advising them to consult before accepting advertisements for publication or, in some circumstances, to withhold their services or deny offenders access to advertising space.
- Withdrawal of trading privileges: CAP members can revoke, withdraw or temporarily withhold recognition and trading privileges from another member.
- Pre-vetting: Persistent or serious offenders can be required to have their marketing material vetted before publication.
- Online: CAP can ask internet search websites to remove a marketer's paid-for search advertisements when those advertisements link to a page on the marketer's website that contains material which breaks the rules.
- Adverse publicity: If marketers cannot or will not amend problematic marketing communications on their own websites or in other unpaid-for space online under their control, their name and details of the problem with their advertising may be featured on a dedicated section of the ASA website. This is designed to appear in search engine results when a consumer searches for a company's website, and if necessary the ASA can also place an advertisement appearing in search engine results.

If certain types of marketing communication, including those that are misleading or contain an impermissible comparison, continue to appear after the ASA Council has ruled against them, the ASA can refer the matter to their legal backstop: a dedicated Trading Standards Department contracted by National Trading Standards. This may involve action under the Consumer Protection from Unfair Trading Regulations 2008 or the Business Protection from Misleading Marketing Regulations 2008.

(8) General legal principles - summary

The operation of a self-regulatory code, backed by legal powers enforced by Trading Standards, is a good starting point in relation to the marketing of products and claims made for them, and we return to this in Part V.

However, in relation to liability for the products themselves, most of the legislation that might have relevance is designed for consumer protection. Legal obligations in respect of the manufacture and marketing of materials intended for business-to-business transactions therefore currently reside, with few (and generally arguable) exceptions, in the Construction Products Regulation, which is considered below.

A final issue, before considering that Regulation, is the limitation of redress available to those affected by defective construction products or products that fail to live up to their claimed performance, other than the direct purchaser. This is beyond the terms of reference of this review, and the introduction of any new civil remedies in this regard would require in-depth and careful consideration to ensure that they would be effective without creating a risk that well-intentioned companies would be deterred from entering the market. If that balance could be struck, however, then as well as providing redress for those harmed by poor behaviours, it would represent a dissuasive force against negligence or deliberate wrongdoing.

9.4 The Construction Products Regulation

The governing legislation for the regulation of construction products in the UK has developed through:

- the EU Construction Products Regulation (hereafter "EU CPR305/11") which came into force progressively, with the first provisions, relating to organisational infrastructure (see section 11.3 below), taking effect in April 2011;

- the Construction Products Regulations 2013 ("CPR13"), containing provisions relating to the UK surveillance and enforcement regime, which came into force in July 2013;
- the EU Withdrawal Act 2018, by which CPR305/11 was retained in UK law;
- SI 2019 No. 465 Exiting The European Union - Building and Buildings Construction Market Standards - The Construction Products (Amendment etc.) (EU Exit) Regulations 2019, made 5 March 2019, which made the amendments necessary to ensure the CPR worked under UK law, including returning powers previously held by the European Commission to the UK Parliament and Ministers, changing terminology, amending the 2013 regulations, and setting out transitional arrangements; and
- SI 2020 No. 1359 Exiting The European Union - Building and Buildings Construction Market Standards - The Construction Products (Amendment etc.) (EU Exit) Regulations 2020, made 26 November 2020, by which CPR305/11 continued to apply in Northern Ireland, as in the EU.

One relevant transitional arrangement is that, for a time-limited period, products that meet requirements of CPR305/11 can continue to be placed on the UK market without any need for retesting or additional marking, provided that the product is covered by an EU harmonised standard that has been confirmed as a UK designated standard[32].

SI 2019/465 also made some changes of terminology, substituting the terminology used in CPR305/11 with a UK equivalent, as follows:-

CPR305/11	**UK equivalent**
Harmonised European standard (or "hEN")	Designated standard
Notified Body	Approved Body
Group of Notified Bodies	UK Group of Approved Bodies
European Technical Assessment	UK Technical Assessment
European Assessment Document ("EAD") – formerly European Technical Approval Guide ("ETAG")	UK Assessment Document ("UKAD")
CE marking	UKCA marking

Unless specifically referring to the original EU legislation, the terms used in this report are the UK equivalents - acknowledging that the EU terminology continues to apply in Northern Ireland, as the second (2020) Statutory Instrument limited the application of the first to Great Britain, following the agreement of the Northern Ireland Protocol. CPR305/11 will consequently continue to apply to construction products for which there is an EU harmonised standard or a European Technical Assessment, regardless of where the products have been manufactured.

Even in the rest of Great Britain, and prior to the bringing in of new regulations under powers granted by the Building Safety Act, the mechanism by which the Constructions Products Regulation was retained in UK law did not materially affect matters of process.

The definitions used for the purposes of the CPR are:-
- A construction product is "*any product or kit which is produced and placed on the market for incorporation in a permanent manner in construction work or parts thereof and the performance of which has an effect on the performance of the construction works with respect to the basic requirements for construction works*".
- A kit is "*a construction product placed on the market by a single manufacturer as a set of at least two separate components that need to be put together to be incorporated in the construction works*".

The Regulations therefore exclude coverage of assemblies comprising components made by different manufacturers, where a single manufacturer does not take overall responsibility for the assembly and which fall outside the definition of a kit.

[32] Post-dated footnote: see also footnote 100 re further easements made in respect of UKCA marking.

In addition, and crucially, the Regulations only apply to a product for which there is an officially recognised standard. That must be a standard agreed originally for the purposes of the EU single market as a “harmonised standard” (and now, as far as Great Britain is concerned, retained in UK law, but retitled as a “designated standard”), or which is the subject of a European (now UK) Assessment Document. As a result only a minority of products marketed in the UK (broadly estimated at about one-third of the total) are covered by the Regulations. This clearly represents a significant gap in statutory coverage, which is considered in Part V below.

The CPR sets out four essential building blocks for a quality system:-
(1) a structured system for developing standards, progressing from the basic requirements of construction work to the essential characteristics of the product necessary to deliver that performance in its intended use;
(2) a detailed system for confirming the conformity of products to standard, where those standards have been agreed as a necessary precondition for placing the product on the market;
(3) a competent organisational structure necessary to develop standards and to conduct and oversee the conformity assessment process; and
(4) surveillance of the market to confirm compliance or intervene in the event of non-compliance - although this was formerly the one part of the system that was left to member states, without any oversight by the EU.

These building blocks are not unique to construction products. Rather, they reflect a system that has, with minor variations, been adopted internationally: a “quality infrastructure”.

10. National Quality Infrastructure

10.1 Introduction

As above, the elements of a National Quality Infrastructure (including the UK’s), as they relate to construction products, are:-
- standardisation - setting the standards with which products or processes should comply;
- accreditation - assuring the competence of those conducting conformity assessment and other processes critical to quality;
- measurement - ensuring accuracy, validity and consistency;
- conformity assessment - confirming that the standards are met;
- market surveillance - ensuring compliance with regulations.

Each of these is considered below, starting with the organisational structure through which these services are delivered and accredited, before considering standards and the details of the conformity process itself (or “mapping the system”).

The national organisational structure is headed by three bodies:-
- for standards, the British Standards Institution (“BSI”);
- for measurement, the National Physical Laboratory (“NPL”); and
- for accreditation, the United Kingdom Accreditation Service (“UKAS”)

The process of confirming compliance with standards is then (generally) conducted by Conformity Assessment Bodies who are accredited by UKAS and approved by the Secretary of State for the purpose of delivering services required by the CPR (“Approved Bodies” in GB usage). These bodies are variously responsible for “certification, verification, inspection, testing and calibration”. The exception is where the assessment system allows self-certification (see section 12 below).

The sequence of events for a manufacturer intending to launch onto the market a construction product subject to the CPR is therefore to comply with the designated standard, and then to pass

a conformity assessment process, generally using the services of an Approved Body. Those Approved Bodies are then accountable to the Secretary of State in DLUHC, and are subject to assessment by UKAS for both competence and compliance with the standards against which they are accredited.

In operational terms, surveillance of the whole process as it relates to construction products (that is, of UKAS and of the conformity of products on the market) is then primarily the responsibility of OPSS, who "*lead standards and accreditation policy across Government, working with the British Standards Institution and the United Kingdom Accreditation Service, providing benchmarks for the manufacture of safe products and assuring the quality of testing, calibration and certification services*"[33].

This hierarchy is illustrated diagrammatically in figure 1. Note, however, that in terms of accountability the picture is more complex, with DLUHC "owning" designated standards and responsible for the appointment of Approved Bodies (who are in turn accountable to the Secretary of State), although both BSI and UKAS operate under Memoranda of Understanding with DBT.

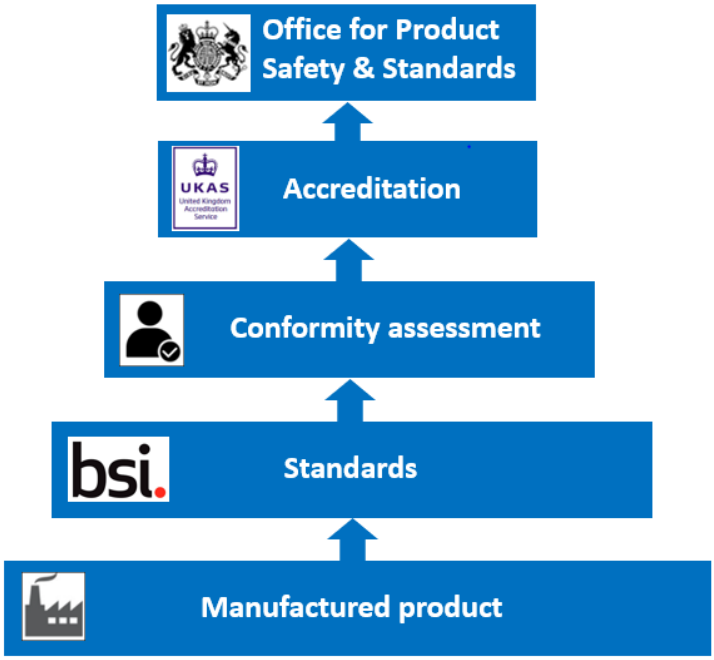

Figure 1: National Quality Infrastructure as it relates to construction products

An early focus of the review has therefore been on UKAS, as the operational top of this pyramid, and on its relationship with Government.

10.2 Accreditation – UKAS

UKAS was formed in 1995 by bringing together a number of separate organisations into a single body. It is an independent company, limited by guarantee, and is appointed by Government as the National Accreditation Body through the Accreditation Regulations 2009, and also operates under the authority of a Memorandum of Understanding with Government, with DBT as its sponsor. DBT is also responsible for continuing oversight of UKAS's activities.

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

With the exception of the possibility of Government funding for developmental work, UKAS is required to be self-financing through fees charged for its services.

UKAS is not a regulator, but accreditation is a tool used by regulators, and UKAS might therefore be said to be performing a quasi-regulatory role. That role is to accredit testing laboratories and other Conformity Assessment Bodies (including those operating in the field of construction products, but not exclusively so), in accordance with international standards; and then to conduct annual surveillance of these bodies, and a four-yearly re-assessment, again in accordance with international standards.

Once accredited, a CAB may apply to carry out work required under the CPR and may be approved for that purpose by the Secretary of State, with the advice of UKAS if so requested.

UKAS is itself subject to four-yearly peer review, currently conducted by the European co-operation for Accreditation ("EA"), a not-for-profit organisation appointed by the EC "*to develop and maintain a multilateral agreement of mutual recognition … based on a harmonised accreditation infrastructure*" and, inter alia, to "*ensure product and service quality*"[34]. Its members are National Accreditation Bodies that are officially recognised by their national governments to assess and verify organisations that carry out conformity assessment activities, and UKAS's continuing membership has been confirmed, subsequent to the UK's withdrawal from the EU[35].

Government's direct involvement in UKAS is generally described in the MoU. In addition to the Secretary of State for DBT being a member of the not-for-profit company, DBT is also a member of its Policy Advisory Forum, which was established to advise the UKAS Board on general policy matters relating to its operations, and the Policy Advisory Council which advises the Board on more detailed aspects of policy, particularly on questions relating to the safeguarding of impartiality, working within broad policy directions set by the Forum. Government is also entitled, by virtue of the Memorandum of Understanding, to see the executive summary of the four-yearly peer review; and, by virtue of the Accreditation Regulations[36], UKAS is to "*provide to the Secretary of State such information as he may in writing request in relation to its functions*…".

Whether more might be made of the relationship between Government and UKAS is considered in Part V.

10.3 Standardisation - The British Standards Institution ("BSI")

BSI, the National Standards Body of the UK, was effectively established in 1909, and was granted a Royal Charter in 1929, as an independent body with the development and promulgation of standards as its primary objective.

Although it received considerable Government funding in the past, the amount is now comparatively modest, generally being limited to funding certain aspects of the work involved in acting as the National Standards Body, and the development of standards is now required to be self-financing. This does, however, have an impact on the price of standards (a point of contention for some users), as clearly the process needs to be funded from somewhere.

Subject to the terms of its Royal Charter, BSI's relationship with Government is governed by a Memorandum of Understanding dated 20 June 2002 (and due for updating, to take account of exiting the EU).

[34] European Accreditation website - https://european-accreditation.org/about-ea/who-are-we/
[35] UKAS announcement dated 30 November 2021 following European Accreditation General Assembly vote on 25 November, confirming that UKAS will continue as a Category B member with effect from 2022.
[36] 2009 No.3155, Market Standards, Accreditation of Services - The Accreditation Regulations 2009, clause 6.

There is also attached to the MoU a 2009 statement on the *UK Government Public Policy Interest in Standardisation*. In this the Department which leads on standardisation policy for the Government (now DBT) recognises both the strength and weaknesses of standards, including (as far as products are concerned):-

- Strengths: giving purchasers and users confidence in the performance of products; promoting efficiency through manufacturers focusing on the best way of meeting standards; propagating innovation by establishing common ground rules, terminology and measurement techniques; and creating a level playing field for international trade and reducing technical barriers to trade.
- Weaknesses: the risk of technical barriers to trade being created by standards which are not justified by public policy, or which are arbitrarily different from standards applied elsewhere; and a possible barrier to innovation through markets favouring established products with published standards.

The statement also confirmed Government support for international cooperation on the subject of standards, and it is assumed for the purposes of this report that this continues. Certainly BSI remains a member of both CEN[37] and CENELEC[38], recognised by the EU as the platforms responsible for developing and defining standards at European level, and their international equivalents ISO[39] and IEC[40]; and BSI's future active role is described in the statement as part of delivering "*a smooth transition … from the existing EU regulatory system for construction products to the new, UK based system*".

As CEN members are generally the recognised national standards bodies of countries who are members of the EU or EFTA, the terms of BSI's membership have had to be updated, and under the terms of membership BSI will be required to continue to comply with regulations[41] which require all members to:

- adopt all standards ratified by CEN/CENELEC;
- withdraw any existing national standards that conflict with the new standard;
- produce no new material that conflicts with those standards; and
- put on hold any work on a standard covering substantially the same ground as one proposed by CEN (expressed as "*a standstill on all national work in the areas of agreed European work*").

All CEN members are also to be given the opportunity to participate "passively or actively" in the development of national standards.

Although frequently seen as the originator of standards, BSI is clear that the service that it provides is essentially one of facilitation and consultation, "*bringing together all interested parties such as manufacturers, consumers, and regulators of a particular material, product, process or service*" to produce a document based on consensus. Ensuring that all of these constituencies are represented in the development and publication of a standard is therefore critical.

The amount of consultation and deliberation necessary to achieve this does, however, inevitably take time: the time required to develop a new standard is estimated by BSI at typically two to three years, but potentially five years or more for complex situations.

This has been addressed by looking at alternative ways of bringing standards into use more quickly, in response to need, and BSI now has two products in addition to full British Standards:-

- Publicly Available Specifications ("PAS") - "*best suited to areas where new concepts are becoming widely accepted and minimal change is expected*"; or

[37] Comité Européen de Normalisation/European Committee for Standardisation.
[38] Comité Européen de Normalisation Électronique/European Committee for Electrotechnical Standardisation.
[39] The International Organization for Standardization.
[40] The International Electrotechnical Commission.
[41] The Statutes and internal regulations parts 1-4 of CEN, 4 July 2018.

- Flex Standards - "*best suited to areas with lower levels of certainty about what constitutes a good approach and where higher levels of flexibility are required*" and where good practice is likely to continue to evolve [42].

Although these faster paths to standardisation are directly sponsored (by industry leaders, Government, trade associations and professional bodies), and the resulting standards are co-branded, they are developed by stakeholder groups assembled and led by BSI, and it is a condition of the MoU with government that, where work on standards is funded by participants, opportunities for participation must be available to other stakeholders as appropriate.

BSI also advises that although new standards developed in the UK may be offered for wider (European or international) adoption, this will not involve any delay in national implementation.

10.4 Standardisation - standards

BSI defines a standard as "*a technical document that is used as a rule, guideline, or definition…a consensus-built, repeatable way of doing something*". Standardisation is the process by which this is achieved, bringing together all interested parties

The importance and value of standards is, we would say, unarguable, and clearly there can be no conformity assessment programme for a product unless there is something it must conform with. Indeed, one definition of quality would be conformity to standard - and it is a definition that is capable of objective measurement, rather than subjective opinion. Problems connected to a reliance on standards therefore arise where there is no standard; or where it is not clear what standard is to apply; or where standards need to be updated; or where they provide only partial coverage - so that compliance may not deliver every desired aspect of performance; or where the standard itself does not deliver the required performance, notwithstanding compliance; or where compliance is misrepresented. This is considered in Part V.

BSI separates standards into "formal", developed by recognised bodies such as BSI itself and the European and international organisations of which BSI is a member (CEN, CENELEC, ISO and IEC); and "informal" standards, developed by or at the instigation of a limited group of stakeholders, such as national governments, executive agencies, professional institutions and trade associations – or, in some cases, consumers.

Formal standards can then be further categorised by reference to their regulatory/evidential status, as follows:-

- **Regulatory construction product standards:** the standards that, under Construction Products Regulations, products must conform to in order to be placed on the market. These would always be an active BSI standard.
- **Advisory performance standards:** standards that, under the Approved Documents providing guidance on the Building Regulations, may be used to demonstrate compliance with the functional requirements of the Regulations – but with other ways of demonstrating compliance left open. These would also be a BSI standard, but can (and do) refer to withdrawn standards as well.
- **Industry standards:** standards that have no regulatory basis themselves, but which may be used as evidence of compliance with regulations other than the CPR or Building Regulations - such as the General Product Safety Regulation. These too would always be an active BSI standard.

Although informal standards have no regulatory basis, they may also be used as evidence of compliance with regulations other than the CPR or Building Regulations.

[42] See bsigroup.com/en-GB/our-services/standards-services/flex

In addition, there are standards and guides produced by industry (particularly sector-specific trade associations, but also including special interest bodies such as the Building Research Establishment), without the involvement of BSI. These typically deal with product performance, but include some standards relating to testing, and in the absence of a "formal" standard they may be accepted and adopted as recognised best practice – and may be cited in Government guidance. An example is the Passive Fire Protection Federation (PFPF) guide to undertaking technical assessments[43], which also illustrates the important part that authoritative guidance from specialist trade associations can play in the process.

The standards that bring a product into the scope of the CPR have their origins in "harmonised standards" that are adopted by EU members, originally to create a "level playing field" for the single market, but subsequently to add requirements for public protection. These standards set five critical conditions that relate to the testing regime:-

(1) The essential characteristics with which (subject to certain exceptions - see section 30.6 below) a product must comply if the manufacturer declares performance against that characteristic (and in respect of which performance to at least one characteristic must be declared). These are generally included in an annex (Annex ZA) of each standard.
(2) The intended use(s) of the product, which is/are to be declared by the manufacturer in its Declaration of Performance (see section 12.11 below), with the relevant text also included in Annex ZA.
(3) The appropriate AVCP system level for each characteristic (and note that system levels relate to individual characteristics, rather than to the products themselves), and the technical details necessary for its implementation.
(4) The appropriate testing or other assessment methods and criteria to be used in assessing conformity.
(5) The applicable manufacturing quality control process (or "Factory Production Control" system - see section 12.4 below) to be operated by the manufacturer.

The essential characteristics relate to the seven basic requirements which construction works must meet to deliver fitness for use for "*an economically reasonable working life*" (see section 9.1 above). These "Basic Requirements for Construction Works" as set down in the CPR broadly cover:-

- mechanical resistance and stability;
- safety in case of fire;
- hygiene, health and environment;
- safety and accessibility in use;
- protection against noise;
- energy economy and heat retention;
- sustainable use of natural resources.

Standards therefore "fill in the detail" in support of these broad objectives, and may do so in one of two ways:

- performance-based standards setting out ways of measuring and describing a range of different performance requirements for a product, focussing on **how** it is to perform irrespective of its specification, composition, means of manufacture etc; or
- prescriptive standards setting out a technical specification for a product, focussing more on **what** it is - its design, composition, controls on manufacture etc.

Apart from leaving more room for innovation, performance-based standards also represent less of a barrier to trade, and World Trade Organisation ("WTO") practice calls for standards to be performance-based wherever appropriate[44] (or, in the Code of Good Practice, "*whenever possible*").

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[43] *Guide to Undertaking Technical Assessments of Fire Performance of Construction Products Based on Fire Test Evidence*, Passive Fire Protection Forum, 2021.
[44] *WTO Technical Barriers to Trade* 3rd edition. Article 2.8: *Wherever appropriate, Members shall specify technical regulations based on product requirements in terms of performance rather than design or descriptive characteristics.*

In addition, product standards may address characteristics that are not regulated, but these will not be listed in Annex ZA, and conformity is voluntary. It follows that marking does not necessarily represent confirmation of the conformity of a product with all requirements of a standard. The manufacturer makes a specific declaration of performance, electing the essential characteristics and intended uses to which it relates, not a blanket declaration of conformity.

Following the UK's departure from the EU, a list of standards relevant to the CPR (now "designated standards") applying in England, Wales and Scotland has been published[45].

There is an alternative form of technical specification recognised in the CPR as a route to marking - Assessment Documents set in accordance with the Technical Assessment process (see sections 11.2 and 13.1 below). There are currently about 80 European Assessment Documents in force, having a status equivalent to harmonised standards. To date, however, the published list of designated standards does not include any Assessment Documents, although the Government response to the pre-legislative scrutiny report makes clear that it will do so.

Beyond that, Government has announced that it has "*no current plans to review these* [designated] *standards at this time*"- which we understand to mean that there is to be a standstill for the time being, with no intention to add or remove designated standards.

Technical specifications relevant to the CPR may therefore come from:-
- the existing schedule of EU harmonised standards which have been confirmed as Designated Standards by the Secretary of State;
- any standards developed by recognised standardisation bodies, whether domestic or international, if so designated by the Secretary of State - which means that standards developed by CEN (for example) can be adopted as designated standards before they are approved and listed as harmonised standards by the EC; or
- any UK Assessment Documents issued by approved Technical Assessment Bodies (which may, by agreement, make use of European Assessment Documents), if approved by the Secretary of State.

Although the focus here is on construction products themselves, and their assessment for conformity, standards also apply to processes and services, and some of these are critical to the quality infrastructure. They provide the standard against which Conformity Assessment Bodies are audited and accredited, and are also the standards by reference to which European Accreditation makes recommendations in respect of UKAS's signatory status. Foremost amongst these are:-
- ISO/IEC 17020 - conformity assessment - requirements for the operation of various types of bodies performing inspection;
- ISO/IEC 17021 - conformity assessment - requirements for bodies providing audit and certification of management systems;
- ISO/IEC 17024 - conformity assessment for bodies certifying competent persons schemes;
- ISO/IEC 17025 - general requirements for the competence of testing and calibration laboratories;
- ISO 17034 – reference material producers;
- ISO/IEC 17043 - accreditation for proficiency test providers; and
- ISO/IEC 17065 - accreditation standard for product certification bodies.

ISO/IEC 17025 is the key standard used by accreditation bodies to demonstrate and assess the competence of laboratories – or, more specifically, "*to assess factors relevant to a laboratory's ability to produce precise, accurate test and calibration data*" looking at staff, test methods, test equipment, the testing environment, sampling and handling test items, and the quality assurance

[45] DLUHC (then MHCLG) publication 0035/21 dated 1 January 2021.

of testing calibration data[46]. It is therefore applicable to AVCP system level 3, and to the testing element of all levels of the AVCP system unless the testing is subcontracted to an unaccredited laboratory (see section 25.4 below re subcontracting).

ISO/IEC 17065 is then the key standard for Approved Bodies providing product certification. Certification is applicable to AVCP system levels 1+, 1 and 2+, and provides third party attestation that the requirements specified for a product and its manufacture are met.

There are other standards which relate to quality management or conformity assessment, but which UKAS advises do not form part of their audit or accreditation processes. These include:-
- ISO 9001 – quality management systems
- ISO/IEC 17000 - conformity assessment - vocabulary and general principles
- ISO/IEC 17060 - conformity assessment - code of good practice
- ISO/IEC 17067 - conformity assessment - fundamentals and guidelines for product certification schemes
- ISO 19011 - guidelines for auditing management systems.

Some of these are cross-referenced in standards that do form part of the UKAS accreditation process and/or in GNB guidance notes, and therefore also represent requirements or guidance that Approved Bodies should pay heed to.

Finally, ISO/IEC 17011 sets out the requirements for accreditation bodies (in this case UKAS) responsible for accrediting Conformity Assessment Bodies.

11 Conformity Assessment Bodies and Approved Bodies

11.1 Approved Bodies

As set out above, in order to assess the conformity of products subject to the Construction Products Regulations, there is a network of Conformity Assessment Bodies accredited by UKAS and approved by the Secretary of State for the purposes of the CPR. These “Approved Bodies” are accredited for different categories of work, and EC regulations[47] drew the following distinctions:-
- Laboratory: a body accredited “*to measure, examine, test, calculate or otherwise assess the performance of construction products*”
- Factory Production Control Certification Body: accredited to carry out FPC certification
- Product Certification Body: accredited to carry out constancy of performance certification.

The particular significance of these categories becomes clearer when looking at the conformity process itself - see section 12.

In reality there is considerable overlap between functions carried out by individual Approved Bodies, of which there are 45 accredited by UKAS[48] - as scheduled in Appendix 4.

The accreditation process is handled as a matter of contract between UKAS and the applicant body; and, as well as compliance with the CPR and the accreditation standards, the body must meet the requirements set by UKAS following the principles of European Accreditation which, prior to the UK’s exit from the EU, UKAS had to observe in accrediting them (and which therefore still apply in Northern Ireland)[49].

[46] International Laboratory Accreditation Cooperation (ILAC) publication, *Why Use An Accredited Laboratory*, 2015.
[47] Commission Delegated Regulation (EU) No. 568/2014.
[48] Post-dated footnote: there are 53 Approved Bodies as at the date of publication. See Appendix 4 for updated list.
[49] See UKAS publication GEN 5, Accreditation for the Purposes of Appointment as an Approved Body under the UKCA System, July 2021; and www.european-accreditation.org/publication/EA-2/17 M: 2020 - EA Document on Accreditation for Notification Purposes.

Approved Bodies are not granted any kind of overall, organisational accreditation. They require accreditation for each test or certification they wish to offer, and therefore effectively each product family (or sometimes an essential characteristic of a range of products). One consequence of this is that the market for any one product family or test tends to be fairly concentrated, resulting in pressure on both capacity and cost.

The capacity issue was made urgent by the original requirement for product manufacturers to obtain UKCA marking by January 2022. The immediate pressure was relieved by that date being postponed to January 2023, but the issue of capacity remains and will not necessarily be resolved by the granting of more time. This is addressed in Part IV.

11.2 Technical Assessment Bodies

In addition to the three categories of CABs described above, there are Technical Assessment Bodies ("TABs") accredited by UKAS for the conduct of Technical Assessments – a voluntary route to product certification and marking either where there are no designated standards for that product or where the scope of a designated standard does not cover a particular product (see section 13.1 below). Accreditation is made on the basis of the TAB's "*necessary understanding of the Regulation, professional ability, technical knowledge and capability*", assessed against ISO/IEC 17065, with the final designation being a decision for the Secretary of State on the basis of an accreditation certificate and assessment report issued by UKAS.

As well as conforming to the requirements of ISO/IEC 17065, TABs must
- as for Approved Bodies generally, meet requirements set by UKAS following the principles of European Accreditation[50];
- maintain a quality system to ensure that all relevant requirements continue to be met;
- be transparent about their internal decision-making bodies;
- organise and coordinate their activities through a group formed of all TABs; and
- contribute information relevant to the operation of the CPR generally.

As for CABs, TABs must agree to UKAS monitoring their activities and competence, by annual surveillance or more frequently if required, and conducting a full reassessment every 4 years or at other intervals as appropriate.

Finally, the Secretary of State is also required to monitor the activities and competence of the TABs, and evaluate them against requirements set out in the CPR.

11.3 EU conformity assessment infrastructure

Over the years, a substantial organisational structure has grown up around how the Notified Bodies operate in the EU. Apart from their individual responsibilities, these bodies are required to participate in, and keep themselves informed of, the relevant activities of a coordination group - the Group of Notified Bodies ("GNB")[51]. This Group is overseen in turn by an Advisory Group, which is responsible for the general coordination of "horizontal" issues – that is, issues that run across product categories.

The Advisory Group is served by a Technical Secretariat and an Administrative Secretariat, both of which are funded by the EU.

[50] *Ibid*.
[51] EU Regulation 305/2011, Article 43(11), retained in UK law as applying to Approved Bodies.

Notified Bodies are also required to "*apply as general guidance the administrative decisions and documents produced as a work result*" of the GNB. These decisions and documents cannot supersede or amend the Regulations themselves, but they do represent shared learning and provide guidance as to how particular issues arising in the implementation of the Regulations should be handled.

"Vertical" issues, relating to specific product categories or themes, are then handled by Sector Groups, of which there are currently 24 – again served by a Secretariat funded by the EU; and Notified Bodies accredited for products within the scope of a specific Sector Group are expected to participate. (Conversely, bodies with no involvement in the scope of a Sector Group's work are "*not normally welcome*".) Sector Groups may also set up *ad hoc* Working Groups to examine specific issues.

The principal output of the GNB-CPR Advisory and Sector Groups is a compendium of internal rules, approved guidance notes and position papers which all Notified Bodies are required to follow. This is 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.

TABs operating in the EU are also required to establish an over-arching organisation (the European Organisation for Technical Approvals– or "EOTA") to ensure coordination of their activities and cooperation with other stakeholders; to share examples of best practice, particularly in developing and adopting the bespoke standards used for assessment; and to ensure the public availability of both those standards and any assessments made against them - all with the support of a Secretariat and the benefit of EU funding.

Finally, there are EU publications or databases that support the conformity assessment process, including:-

- the New Approach Notified and Designated Organisations ("NANDO") database - which lists all relevant organisations, such as Notified Bodies and TABs, and the scope of their notification;
- the Communication and Information Resource Centre for Administrations, Businesses and Citizens ("CIRCABC") – which serves as the principal means of communication and information exchange between those organisations, listing meeting dates, the status of guidance notes, the confidential results of inter-laboratory comparisons etc; and
- the Official Journal of the European Union ("OJEU") – listing harmonised standards.

If the transfer of the EU process of product testing, assessment and certification into UK practice is to be sustained, therefore, then there needs to be either a replica of this infrastructure in the UK or some alternative way of performing its functions. All of its parts are necessary to an effective conformity assessment system

11.4 UK equivalent infrastructure

Looking at the *status quo* after exiting the EU, the position on standards and standardisation remains largely the same; and the operations of individual UK Approved Bodies are also little affected beyond name changes (and capacity issues arising from the switch to UKCA marking). What has not been effectively recreated by the exit arrangements is the collaboration that Notified Bodies are required to exercise across the EU. As a result, clarity is needed about both the current status and future intentions in respect of the most obvious products of that collaboration, namely:-

- the guidance notes that are produced by the Advisory Board of the GNB or its Sector and Working Groups; and
- the standards for Technical Assessments developed and agreed jointly by EOTA (ETAGs and EADs).

Collaboration is also important in order to share knowledge, and Approved Bodies are required to conduct “round robin” exercises, when asked to do so, in order to check for consistency of results from house to house.

Although some Approved Bodies who still have operations in the EU or Northern Ireland may attend GNB committee meetings, there is otherwise no continuing UK representation on any of these committees, and consequently no influence on their future deliberations.

All of these objectives (the sharing of knowledge, the development of guidance, and the achievement of consistency) remain important - but they require an organisational structure.

In terms of organisation, DLUHC have motivated the coming together of two groupings to replicate equivalents in the EU:-

- a UK Group of Approved Bodies, which includes all CABs approved by the Secretary of State for the purposes of the CPR; and
- a UK Organisation of Technical Assessment, which comprises the 10 TABs[52] (actually with 8 ultimate owners).

The terms of reference for both bodies are, however, tentative and they lack the support of a funded secretariat.[53]

As far as existing guidance is concerned, although it is called “guidance”, it is clear under the operation of CPR305/11 that Notified Bodies were required to follow it, that UKAS was to assess whether it was indeed being followed, and that a failure to do so could, in the extreme, lead to a loss of accreditation. To all practical purposes, therefore, the guidance was (and therefore presumably still is) mandatory.

The guidance was not brought formally into the GB process on the UK’s exit from the EU, but DLUHC has advised us that, through the UK Group of Approved Bodies, it has subsequently informed the Approved Bodies that existing guidance notes should continue to be followed.

However, without the support of a secretariat and of the sector and working groups that exist within the EU, it is it not clear where future guidance will come from.

Similarly, the UK no longer has access to the database by which the Notified Bodies communicate with each other, circulate minutes of meetings, publish draft and agreed guidance notes and share the results of inter-laboratory comparisons.

The action in response to all of this clearly depends upon the principle of alignment (or non-alignment) with the EU in the future, and this is considered in Part IV. It is clear, though, that the guidance notes that already exist are both valuable and necessary, and there will be a need for others in the future and, in the absence of agreement with the EU, the UK will no longer have access to the output of the GNB. Some UK equivalent will therefore be required.

12 Conformity assessment and the AVCP system: mapping the process

12.1 Introduction

[52] Post-dated footnote: as at the date of publication there are 9 accredited Technical Assessment Bodies with 8 ultimate owners. See Appendix 4 for an updated list.

[53] Post-dated footnote: the Government’s December 2022 announcement relating to the extended recognition of CE marking (see footnote 100) states that “*the UK technical assessment bodies may collectively form an organisation to undertake the role of developing and adopting assessment documents*”. It seems that the formation of such a group is therefore at the discretion of the TABs themselves.

For products for which there is a designated standard, it is mandatory for the manufacturer to ensure conformity to the relevant standard, make a Declaration of Performance, and mark the product. The mark then signifies that the product has met all legal requirements for placement on the market and that it is consistent with its declared performance.

The basic framework of the CPR is the process by which manufacturers secure the right to mark the product; and this process is in turn influenced by the nature of the product itself, and its allocation to the series of levels under a system established to "*safeguard the reliability and accuracy of the Declaration of Performance*" – the AVCP ("Assessment and Verification of Constancy of Performance") system.

The only exceptions to this requirement are, broadly[54], the following categories of products:

(a) products individually manufactured or custom-made in a non-series process to specific order for a single named project;

(b) products manufactured on site for incorporation into the works in accordance with applicable UK rules; or

(c) products specially manufactured in a non-industrial process to suit the requirements of a building of officially recognised architectural or historic merit.

In these circumstances, and subject to the detailed provisions of the CPR, then, even where a construction product is covered by a designated standard, the manufacturer is excused from drawing up a declaration of performance.

In the case of products qualifying for an exception under category (a), however, there is still the need to establish compliance with the standard, although the assessment part of the AVCP system may be replaced by "Specific Technical Documentation" demonstrating equivalence to a designated standard; and if the product would otherwise be at AVCP System 1 or 1+, then this documentation must be verified by an Approved Body, and the product still has to be marked.

Also, where a product is intended to be used in a way not contemplated in the designated standard, then it is effectively out of the scope of the CPR, and there is no requirement to demonstrate conformity, nor to mark the product. The EC "step by step" guide gives the example of floor tiles being covered by a harmonised standard when used in floors but not when used in window seats[55] - but the tiles are still on the market, and there is the potential for this to be repeated for products where the risks might be more serious. Specifiers or users of a product for a purpose that is out of scope therefore need to be aware of this fact and exercise due care; and manufacturers need to be clear as to the purposes for which their products are, or are not, suitable. No matter how effective the testing regime, it comes to nothing if a product is used for a purpose for which it is not intended and has not been assessed.

There is also a "co-existence" period, of a length to be determined by the Secretary of State, from the date of a standard becoming designated. During that time the manufacturer may continue to assess, declare and mark the product in accordance with the previous version of the standard; or, if there is no previous version, marking within the co-existence period is voluntary.

Finally, there is the voluntary route to marking via the Technical Assessment process; and another voluntary route to conformity assessment (but without official marking) via third-party certification. These are covered below, in sections 13.1 and 13.2 respectively.

For the mandatory route, however, the AVCP system represents the framework by which conformity to standard is assessed and, in some cases, assured after assessment, with the aim of ensuring that the performance declared in the Declaration of Performance is consistently met.

[54] See CPR Article 5 for full definition.

[55] European Commission publication *CE Marking of Construction Products, Step by Step*, September 2015, para 1.2.1.

12.2 The AVCP ("Assessment and Verification of Constancy of Performance") system

There are two basic parts of the AVCP system:

- **Assessment:** a one-time activity by which the performance of the product is determined and on the basis of which the manufacturer makes its Declaration of Performance. It is repeated whenever (but only when) a change in the specification of the product, the manufacturer's supply chain or the manufacturing process itself could affect conformity with the declared performance; or where the designated standards applying to the product and/or the means of conformity assessment are changed.

- **Verification of constancy:** an ongoing activity to ensure continuing performance in compliance with the assessed standards and the manufacturer's Declaration.

There are then five routes (or system levels) and six potential steps through the relevant route that must be followed before the manufacturer can make a Declaration of Performance, mark the product and place it on the market[56]. The requirements for each step are summarised below, and are illustrated in figure 2, which also shows who is responsible for each step under each system level. Those routes that cover both assessment and verification of constancy lead to certification of the product by the Approved Body.

The system levels can therefore be divided into two categories:-
- at levels 4 and 3, the route to market is principally via **testing** - whether self-performed or conducted by an Approved Body;
- at levels 2+, 1 and 1+, the route to market is via **certification** – always conducted by an Approved Body.

[56] See Annex V of Commission Delegated Regulation (EU) No 568/2014 of 18 February 2014.

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

Figure 2: AVCP system tabulated

Working up from the bottom of this table (representing the lightest touch of the 5 levels), for **system level 4** the manufacturer can make a Declaration of Performance and mark the product, following the requirements of the CPR, but without reference to external bodies, making its own decisions as to the appropriate manufacturing processes ("Factory Production Control") and the need for testing.

At **system level 3**, the manufacturer must engage with an Approved Body with UKAS accreditation for any testing required, but otherwise there is no requirement for third-party involvement, and the other steps in the process are self-performed, as for level 4.

At **system level 2+**, a manufacturer must engage an Approved Body accredited for certification and surveillance of the manufacturer's factory process – "**FPC Certification**", but again the other steps are self-performed.

At **system levels 1+ and 1**, at these highest levels, representing "**Product Certification**", a manufacturer must engage an Approved Body (or Bodies) accredited both for testing and for certification[57]. This may, or may not be the same Approved Body for all tasks, although informal European Commission advice is that use of a single Approved Body is "the best option"[58]. The differentiation between these two levels is the requirement at level 1+ for the Approved Body also to be involved in periodic testing whilst the product is in production and on the market ("series production"), rather than that just being a continuing obligation on the manufacturer.

[57] Post-dated footnote: see footnote 97 re a practical qualification to the requirement for all testing to be conducted by an accredited body.
[58] European Commission publication *CE Marking of Construction Products, Step by Step*, September 2015.

To add to the complexity, the AVCP system level relates to essential characteristics (rather than all aspects of a given product), so each product may be assessed at more than one level. For example, most thermal insulation has characteristics assessed at three different system levels, and some waterproofing products are assessed at four different levels. This is considered in more detail at section 12.3 below.

Where a manufacturer chooses to declare performance against more than one essential characteristic, then the manufacturer may also use separate testing laboratories for each characteristic. This adds yet more complexity, but is probably a pragmatic response to issues of the capacity and coverage of Approved Bodies.

Looking beyond the individual steps, the broader allocation of responsibilities under the system is as follows:-

- The Approved Body should satisfy itself that the product's essential characteristics have been allocated to the correct AVCP system level and is responsible for the correct conduct of the tasks assigned to it (and shall do so strictly in accordance with the CPR, neither extending nor limiting the defined tasks). It could be held liable under national law for losses caused, either to the manufacturer or to others, as a consequence of misconduct; but we have not been advised of any UK law that creates liabilities specific to the UK.

- Irrespective of the above, it is the manufacturer's responsibility to identify the correct system level(s) for its products, notwithstanding the Approved Body's duty to check[59]; and the manufacturer remains solely responsible for the conformity of the construction product with the declared performance and for compliance with all requirements of the CPR.

Finally, the Approved Body's client for the conformity assessment process can only be the product's manufacturer[60].

12.3 Allocation to AVCP system levels

The appropriate AVCP system level for each essential characteristic is set down in the designated standard, subject to final determination by the Secretary of State.

The criteria used for this are not, as far as we have been able to determine, declared in detail for each product, but include:-
- the potential impact of the product on health and safety;
- the particular nature of the product; and
- the production process for the product.

As noted above, AVCP levels are allocated to essential characteristics rather than individual products, and the only centralised record we have found of how all products and their characteristics are allocated is in a GNB working document produced for a different purpose[61]. On the basis of that document, the number of product groups covered by a designated standard that are allocated to each level (or combination of levels) of the AVCP system, and example products in each case, are shown in figure 3 below.

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[59] See GNB position paper NB-CPR/17/722r8, clause 4.6, second paragraph et seq: *When approached by a manufacturer a notified body shall satisfy itself that the construction product concerned actually does fall under the AVCP system(s) applied by the manufacturer.*

[60] See GNB position paper NB-CPR/17/722r8, clause 4.8. For the purpose of this principle, "Manufacturer" is defined as a "*person who manufacturers a construction product who has or who has such a product design or manufactured, and markets that product under his name or trademark*" - CPR Article 2(19); or, for a system made up of components assembled in accordance with instructions given by its provider, then the client may be the system provider.

[61] See GNB Working Document – Information, NB-CPR/M04: Allocation of technical specifications to GNB-CPR Sector Groups and Working Groups, issued May 2017.

AVCP system level(s)	Product groups assessed at each level or combination of levels	Example products at each level or combination of levels
1+	9 (+1)	Galvanised steel reinforcement; specialist cements
1	72 (+125)	Structural timber; hardware; fixed firefighting systems; smoke and heat control, fire dampers; fire detection and alarm systems; lighting columns
2+	73 (+58)	Generally structural products for which compressive strength is an important essential characteristic - structural steel; nails and screws for timber structures; certain precast concrete products, chimneys and geotextiles; welding consumables; admixtures and colouring pigments.
3	32 (+165)	Wastewater lifting and treatment systems; solid fuel residential boilers and heaters; radiators and convectors; ancillaries for masonry and timber structures.
4	52 (+190)	Steel tubes, pipes and fittings; stone, terrazzo, concrete and clay paving; mortar; anti-flood devices; sanitary appliances
1/2+	1	Timber structures
1/3	15	Structural bearings; standard curtain walling; fire-retardant
2+/4	40	Aggregates; certain precast concrete products, chimneys and geotextiles
3/4	40	Gypsum plasterboard products; natural stone; steel, cast iron and copper pipes
1+/3/4	1	Power, control and communication cables
1/3/4	92	Glass; thermal insulation; windows and doors; vitrified clay pipes; fire stopping and fire protective products; lightweight sheets/panels; flexible sheet/liquid waterproofing; sealants
1/2+/3/4	17	Bituminous mixtures; flexible sheets for waterproofing; products for protection and repair of concrete

Figure 3: allocation of product groups to AVCP system levels

Note: the figures in brackets in column 2 show the total number of products groups which have essential characteristics assessed at each level – so there are, for example, 9+1=10 product groups with characteristics assessed at level 1+.

The number of products assessed at the highest level is therefore surprisingly limited.

12.4 Factory Production Control ("FPC")

It is every manufacturer's obligation to establish and operate a continuous monitoring/verification process that will ensure that products continue to meet the requirements of the designated standard and achieve the declared performance – "Factory Production Control" (or "FPC"). This would include "*the documented, permanent and internal control of production in a factory, in accordance with the relevant [designated] technical specifications*"[62], and the practical implementation of the documented system, including the personnel, equipment and other resources used for controlling production.

12.5 Sampling

The CPR requires manufacturers "*where deemed appropriate with regard to ensuring the accuracy, reliability and stability of the declared performance of a construction product,* [to] *carry out sample testing of construction products placed or made available on the market*"[63]. Test

[62] Construction Products Regulation, Article 2, definition 26.
[63] Construction Products Regulation, Article 11(3).

samples are to be taken at the manufacturing plant, in accordance with a testing plan and in support of factory production control.

Guidance notes then make clear that the Approved Body should select samples for assessment at system levels 1+ and 1, and for audit testing at level 1+, and the notes stress that sampling is "*the only link between the testing and the continuous production of the construction product*"[64], and that samples should represent the ongoing production. The selection of samples may not be subcontracted.

Although assessment at system level 3 is conducted by the Approved Body, samples are selected by the manufacturer.

Samples are usually (and, for audit testing, always) to be taken at the manufacturing plant or storage facilities, but the Approved Body can choose the sample directly from the production line only with the manufacturer's agreement.

The Approved Body is to produce a sampling report documenting the origin of samples and any basic properties and stages of production which may influence the performance of the product. Being able to trace the sample back to its origins in production is important, and as part of this requirement samples are to be clearly and uniquely marked.

ISO/IEC 17025 (which, as above, sets out the general requirements for the competence of testing and calibration laboratories against which Approved Bodies are accredited and reviewed) also mandates, at clause 7.3, specific requirements for how sampling is to be conducted and documented. GNB position papers also provide additional guidance on sampling, and more detailed requirements may be set down in standards, which take precedence over general guidance notes.

Special guidance is provided for those circumstances where products are made to order, often in limited runs, and where multiple examples may not be available for testing, or where only a prototype is available. In this situation, the sample is to represent "*normal production*", or "m*ay be engineered as a worst-case*", and the Approved Body is required to ensure that there is sufficient documentation to check subsequently whether the sample is still representative of series production.

12.6 Testing, assessment

Although all may be generally understood by the shorthand description of "testing", the designated standards actually set out different methods of conformity assessment for different products. These are:-

- testing - conducted in accordance with the requirements of the relevant designated standard and guidance provided in GNB position papers, in a testing process managed in accordance with ISO/IEC 17025;
- calculation;
- tabulated values; and
- descriptive documentation.

Where the standard provides for assessment by means of calculation, tabulated values or descriptive documentation of a product, the work is conducted as described in the standard, with data, drawings and technical descriptions of the product supplied by the manufacturer.

[64] GNB-CPR Approved Guidance Note NB-CPR/15/639r3: Sampling in AVCP Systems 1 and 1+, 1 November 2018.

The Approved Body is to ensure that the personnel conducting the work are suitably qualified, that equipment and software is appropriate and verified, and that the work is reviewed internally before reporting.

There are, in addition, certain shortcuts available in undergoing the assessment/certification process. These are:-

(1) **A simplified procedure** can be followed in particular circumstances set down in the Regulation, including:
   - where a product is manufactured by a micro-enterprise, in which circumstance there is an option for any product to be assessed at level 4 of the AVCP system when it would otherwise be assessed at level 3; or
   - where a product is "*individually manufactured or custom-made in a non-series process*".

(2) **A generic value** or declaration for a particular essential characteristic may be accepted in lieu of testing, by virtue of a regulation made by the Secretary of State. To make use of it the manufacturer has to produce "Appropriate Technical Documentation" explaining how the product is covered by the procedure, referring to the relevant regulation, and confirming that any conditions of the procedure are satisfied. If the AVCP level of the essential characteristic is at system level 1 or 1+, then the Approved Body must verify this documentation.

(3) **A shared test.** It is possible to share testing with other manufacturers, again with the production of Appropriate Technical Documentation which includes the test results obtained by the other manufacturer, its authorisation to use them, and proof that both manufacturers use corresponding raw materials and processes.

(4) **A cascaded test result.** When a product comprises a number of components which have already been assessed by a system provider, then test results obtained for those components can be used. Again, Appropriate Technical Documentation is required, including the test results obtained by the system provider, its authorisation to make use of them, and proof that any previous assessment is applicable and that the system has been assembled according to the instructions of the system provider.

Depending upon the designated standard, assessment results may be

- a simple pass/fail by reaching the minimum or not exceeding the maximum performance (or "threshold level") set down in the standard;
- a declared value of the actual performance; or
- a particular class of performance reached in a range delimited by minimum and maximum values.

12.7 Test report/product certification

Assessment of performance is reported to the manufacturer by the Approved Body in a report produced in accordance with the requirements of the relevant standard (ISO/IEC 17065 for AVCP system levels 2+, 1 and 1+; or ISO/IEC 17025 for AVCP system level 3), and any specific requirement set down in the designated and/or supporting standards.

A GNB guidance note[65] sets down the minimal content of the report, but there is no requirement to follow a set format.

12.8 Field of application

Testing strictly in accordance with designated standards provides direct evidence of the compliance of a product with the requirements of a particular use – the Direct Field of Application.

[65] NB-CPR/17/722r8

For many products, it is possible to extend the coverage of those results relating to matters of fire to produce an Extended Field of Application – effectively using the results of tests performed on some products to predict the result of other products of the same manufacturer and of the same type.

Field of Application reports are not a prescribed part of the AVCP system, but are an important part of making the greatest possible use of costly testing processes, without the need to repeat them for minor variations between products as tested and those to be made available on the market. At the same time, there is clearly a risk of conclusions drawn from test data being stretched too far, leading to a product failing to achieve its declared performance.

The principles to be followed in considering Field of Application are therefore set down in test standards or, where there is no specific standard, in BS EN 15725[66]. This defines the two categories of application:-

(1) Direct Field of Application ("DIAP") - "*whereby a test result is deemed to be equally valid for variations in one or more of the product properties and/or intended end use applications*"
(2) Extended Field of Application ("EXAP") - "*that predicts, for a variation of a product property and/or its intended end use application(s), a test result on the basis of one or more test results to the same test standard*".

Both categories call for the application of defined rules but an EXAP may incorporate calculation "*which is based on existing physical laws or which has been empirically validated*".

An EXAP report must therefore include all details of the process that lead to its conclusion, including details of test evidence.

The "defined rules" set down in the standard are supplemented by "*agreed expert opinion*". This opinion must be derived from a "*dialogue between a group of experts who are accepted by their peers as being knowledgeable in a particular fire test…such dialogue* [to] *take place within a recognised and properly constituted forum*" - for which the example given is the CEN Technical Committee.

The standard makes clear that expert judgement that does not meet those criteria may play a part in satisfying national regulations, but "*cannot form any part of extended application for CE marking*".

This can drive the need for additional testing, and therefore additional cost where there is neither an EXAP standard nor an applicable EXAP rule.

It follows that any "safety-critical" products added into the AVCP system would need not just a standard for the product, but also a standard for testing, and new EXAP standards unless test results are to have a very narrow field of application.

If the analysis and evaluation is positive, however, then the results can be set down in a Classification Report and used in a Declaration of Performance.

12.9 Initial inspection (AVCP system levels 1+, 1 and 2+ only)

The purpose of the initial inspection is to confirm that the manufacturer has production facilities and control systems ("Factory Production Control"), including a continuous monitoring/verification process, that will ensure that products continue to meet the requirements of the designated standard and achieve the declared performance. It therefore follows an indication from the

[66] BS EN 15725:2010 - extended application reports on the fire performance of construction products and building elements.

manufacturer of the essential characteristics for which it wishes to declare performance, and the correct, positive assessment of performance.

The inspection is to be carried out as an onsite audit, following ISO 19011 guidelines, at all locations for which significant manufacturing processes take place; and is to verify that:-

- sampling has been properly documented, with the samples being representative of the ongoing production;
- the assessment process, where not assessed by the Approved Body making the initial inspection, has been correctly conducted and documented, using appropriate personnel and equipment, and will form a valid basis for verifying constancy of performance;
- the manufacturer has the competence to assess the field of application of the test report;
- the manufacturer has processes to ensure that assessment of performance is repeated in the event of a significant change to the product, its constituents, or any aspect of the manufacturing process, or to the relevant standards;
- the manufacturer has an FPC system adequate to ensure the constancy of performance of the product in conformity with the requirements of the designated standard. The Approved Body should request and consider the register of complaints required by CPR Article 11(3) as a source of information on the effectiveness of the FPC system.

The Approved Body should also notify the manufacturer of any non-conformities and verify their correction prior to issuing or renewing a certificate - or, in the event of nonconformities being identified during surveillance activities, as a condition of maintaining the certificate.

12.10 Certification (AVCP systems levels 1+ and 1 for product certification; level 2+ for FPC certification)

Prior to issuing its certificate, the Approved Body has to conduct a review in accordance with ISO/IEC 17065, to be carried out by personnel who have not been involved in the assessment of performance, the initial inspection or any other evaluation activities forming the basis for certification.

The certificate is to confirm that the assessment of performance has been correctly completed and that the initial inspection has established the efficacy of the FPC system operated by the manufacturer.

12.11 Declaration of Performance

At this point of the process, the manufacturer should have the following documentation:-

- the results of the assessment of the essential characteristics covered by a designated standard of the product - whether by testing, tabulated values or description;
- Appropriate Technical Documentation where use is being made of simplified procedures, or shared or cascaded test results;
- Specific Technical Documentation where the product qualifies as an exception, being individually made to specific order, manufactured on site, or specially made to suit the requirements of a building of architectural or historic merit.
- a Technical Assessment, if following the voluntary route in the absence of designated standards;
- a documented Factory Production Control system;
- a certificate from the Approved Body (or Bodies) if system levels 1+, 1 or 2+ apply.

The manufacturer then assigns a unique identification code to the product[67], and is ready and able to make a Declaration of Performance and to mark the product.

The Declaration of Performance is the principal document supporting marking. The CPR sets down the information that is required in the Declaration, including (where relevant, and in addition to identifying the product, the manufacturer and the Approved Body/TAB) the following:-

- the intended use(s) foreseen for the product;
- the relevant designated standard or Assessment Document/ Technical Assessment;
- the declared performance of the product, including a full list of the essential characteristics, as set down in the designated standard or EAD, for the intended uses declared[68];
- for each essential characteristic in respect of which the manufacturer elects to declare performance, "*clear and explicit*" declaration of the level, class or description of performance as assessed;
- reference to Technical Documentation relevant to any use of the simplified procedure.

The Declaration of Performance may be provided electronically.

Manufacturers are, however, given some freedom in the format of the Declaration, and can change the order of the information, to combine items where that makes it easier to understand, and to omit anything that is not applicable. It is also possible to combine different products of similar declared characteristics on one form, as long as the relevant details (including a separate reference number, identification code and declared performance for each) are clear.

This flexibility follows an amendment to CPR305/11[69] which relaxed the previous requirement for use of a model form of Declaration. This amendment specifically excused manufacturers from listing all test, calculation or assessment reports or certificates on Declarations of Performance, on the grounds that to do so might "*become extensive and burdensome but does not bring about added value for the users of the products*".

Where a manufacturer decides that some essential characteristics are not relevant for the product, and are not requested by its customers, it may elect not to declare specific characteristics by writing "NPD" (No Performance Determined) in the Declaration, as long as at least one essential characteristic is declared, and the designated standard does not specifically prohibit it. We return to this in Part V.

Once finalised, a copy of the Declaration should be enclosed with any deliveries of the product, although this requirement can be met by uploading the Declaration to a website, with a link in the marking, unless a customer specifically requests a paper copy.

Thereafter a copy of the finalised Declaration, together with all background documents, is to be kept on file for 10 years after the product is placed on the market (or such other period as the Secretary of State may determine), at the disposal of market surveillance authorities; and the Declaration must also be accessible on the website for the same period.

The manufacturer is solely responsible for the Declaration of Performance, and Approved Bodies are not expected to assess or approve it. They should, however, inform the manufacturer if they become aware of any error or omission in the Declaration. Correction of errors also remains the sole responsibility of the manufacturer, and should not be a prerequisite for the issue of the certificate. The one exception is that if the manufacturer makes misleading or incorrect

[67] The code itself can be of the manufacturer's choosing, but informal EC advice suggests a combination of the commercial name of the product, an internal code linked to the manufacturing process, and the date of assessment, in order "*to easily classify and update the product types*".
[68] Informal EC guidance recommends use of a table with a row for each essential characteristic and the declared performance in columns, with additional columns where different AVCP systems apply.
[69] Commission Delegated Regulation (EU) No 574/2014, on the model to be used for drawing up a Declaration of Performance, 21 February 2014.

references to the certification, then ISO/IEC 17065 specifies that the Approved Body should require the manufacturer to remove such references.

12.12 Marking

Following the Declaration of Performance (and only then), the manufacturer can affix the UKCA marking (or, in Northern Ireland, CE marking if an EU Notified Body is involved or, if not, UKNI marking).

The requirements of marking are prescriptive, as set down CPR Article 9, and generally follow the content of the Declaration of Performance. More detail about the approach for a specific product is then set out in Annex ZA.3 of the relevant designated standard, or in a section of the Assessment Document for technical Assessments.

Once again, as long as the necessary information is provided, manufacturers are free to change the layout of the label or the order of information, combine information or omit non-applicable information. Where and how the label is fixed is also at the discretion of the manufacturer. As long as it is visible (until the product is fixed in place), legible and indelible, it may be on the product, the packaging or, where fixing to the product itself is not possible or warranted, attached to the paperwork. The objective must be that, in whatever form, the labelling reaches the final customer.

As for the Declaration of Performance, the manufacturer is solely responsible for the marking of the product, and takes responsibility for the conformity of the product by virtue of the marking. The Approved Body's responsibility is just to inform the manufacturer if it becomes aware of any error or omission in the marking, and to require the manufacturer to remove misleading or incorrect references to the certification.

12.13 Instructions and safety information, and the REACH Regulation

Manufacturers must draw up instructions and safety information required for use of the product, and these must accompany the product - again with the objective of reaching the final customer. There must therefore be an obligation on all parties in the chain of custody of a product to pass the information on in full.

This includes compliance with any requirements of the REACH (Registration, Evaluation, Authorisation and Restriction of Chemical Substances) Regulation. The coverage of this regulation extends to chemicals used in construction products, but the CPA advises that, although it is for product manufacturers to decide what their obligations are, they do not usually have to supply a safety data sheet because the products themselves are not sufficiently hazardous (as defined in the Classification, Labelling and Packaging Regulations) in the final product. If they are, however, then additional information and documentation is required, including safety data sheets. This is to be provided with the Declaration of Performance, to accompany it right through the supply chain.

Note: as at December 2021, the Secretary of State for Environment, Food and Rural Affairs has indicated that, subject to consultation (planned for summer 2022), he is minded to extend the full registration deadline under the transitional arrangements for bringing the REACH regulation into UK law by 2 years, to 27 October 2025, to allow time for DEFRA, the Health & Safety Executive and the Environment Agency to explore a new model that places greater emphasis on "*improving understanding of the uses and exposures of chemicals*" and the potential for "*more targeted*

regulatory actions"[70]. There may be useful inter-Department read-over here that is relevant both to the more specific targeting of risk and to realistic deadlines for transitional arrangements.

12.14 Continuing surveillance (AVCP system levels 1+, 1 and 2+)

The purpose of continuing surveillance is to verify that the manufacturer continues to operate an FPC system that ensures the constancy of declared performance and compliance with the requirements of the standard in series production. As for the initial inspection, the means is by on-site audits at locations where significant manufacturing processes take place (and that should be every such location unless GNB-CPR Guidance allows otherwise).

An effective FPC system includes an obligation to re-assess whether any change to the product or its means of production may affect its performance. The Approved Body is to be notified of any such change, and is then to determine whether an effective system is in place and review certification where changes may influence the declared performance.

As for the initial inspection, the Approved Body must also notify the manufacturer of any non-conformities, and satisfy itself that they have been corrected.

It must also satisfy itself that the manufacturer has processes in place to prevent non-compliant products being placed on the market. Again, however, it is the manufacturer's responsibility to take appropriate action if there is reason to believe that the declared performance will not be delivered, and the Approved Body does not have a duty to verify that the manufacturer has met its obligations in that regard.

12.15 Audit testing (AVCP system level 1+ only)

For products allocated to AVCP system 1+, the Approved Body is also required to conduct periodic audit-testing of samples, following the requirements of the original sampling and testing process (and again with samples selected by the Approved Body, at the manufacturer's production or storage facility). This is to confirm continuing conformity to the declared performance and relevant standards.

If the audit test result does not meet the applicable requirements, the Approved Body should require the manufacturer to report on the cause of the result, on remedial measures to any non-conforming products already manufactured, and on corrective measures thereafter. It should then repeat sampling and testing if corrective measures appear adequate.

12.16 Non-conformities

If, through continuing surveillance or audit testing, an Approved Body finds that products to be placed on the market do not conform to standard, and it considers it necessary to avoid the manufacturer placing them on the market, then the options available to it range from restriction of the certificate, to suspension and finally, if it is unlikely that the conditions for reinstating the certificate will be met, withdrawal. The choice of option is to be based on the least onerous that would serve the purpose of avoiding a non-conforming product being placed on the market.

In addition, a manufacturer may request a certificate to be suspended at any time.
In all cases notice of any restriction, suspension or withdrawal of a certificate is to be given to UKAS, and limitations are placed upon manufacturers in making use of such a certificate.

[70] Letter dated 6 December 2021 from the Rt Hon George Eustice MP to Steve Elliott, Chief Executive, Chemical Industries Association.

As an additional measure, the Approved Body may conduct an Extraordinary Inspection if it has reason to question the effectiveness of the FPC, either as a result of its own inspection or testing or information received about deficiencies or changes to the product or its manufacture, and this gives cause for concern that a product may not continue to conform. There must be a clearly defined reason and objective for the inspection, both of which should be notified to the manufacturer; but extraordinary inspections may be conducted without prior announcement "*if justified by the concrete circumstances*"[71].

13. Voluntary measures that supplement regulatory requirements

13.1 Technical Assessment

For products for which there is no designated standard (or for which certain characteristics which a manufacturer may want to declare are not covered by a designated standard and an appropriate assessment method), an alternative route to marking is via Technical Assessment. To follow this route, manufacturers must engage a Technical Assessment Body ("TAB") to carry out the necessary assessments.

TABs will make their assessment by reference to a UK Assessment Document ("UKAD"), which effectively stands in the place of a designated standard. It therefore replicates the information typically given in a standard, including a general description of the product, the essential characteristics relevant for its intended use(s), the methods and criteria for assessing performance, and the principles for Factory Production Control.

Where such a document exists, then the TAB must use it. Where it does not, then the TAB must develop one. It does this by:

- agreeing a contract with the manufacturer that includes details of programme and how the work will be organised;
- obtaining from the manufacturer a technical file describing the product, its intended use and proposed Factory Production Control processes;
- convening a working group of accredited TABs, which drafts the UKAD, or approves a draft produced by one of their number;
- communicating the draft to the manufacturer and responding to its comments;
- adopting the draft, sending a copy to the Secretary of State, and again responding to any comments; and
- finalising the UKAD for publication.

On the basis of the above, the TAB will make a UK Technical Assessment ("UKTA"), which substitutes for the assessment process described at section 12 above; but once a UKTA has been issued (including basic details only, for reasons of confidentiality – with the detail being known only to the TAB), then a manufacturer can choose another accredited body to carry out the conformity assessment process.

The particular importance of Technical Assessment is that it offers a route to marking for innovative products for which there is no designated standard. Its place in the future landscape of conformity assessment is therefore linked to the future of marking, and possible developments in the use of voluntary third-party certification (see section 13.2 below). This is considered in Parts IV and V.

13.2 Voluntary third-party certification

[71] GNB Approved Guidance Note NB-CPR/17/722r8.

Research commissioned by DLUHC suggests that some 40-50% of firms that are manufacturing products that are not covered by the CPR nonetheless subscribe to voluntary third-party certification schemes[72]. If that is so, then it could represent as many as 10,000 firms, and it is therefore a considerable influence in the market.

These schemes are generally motivated and coordinated by trade associations but owned and operated by Conformity Assessment Bodies.

At the top end of the scale, they actually sit above the highest level of the AVCP system, with more series production audit testing, and clearer requirements for labelling and traceability; and some schemes also include or connect to certification of installation.

Their principal distinction from Technical Assessment is that, because they were developed as national schemes, they do not offer a route to regulatory (UKCA) marking. That might be reconsidered, but the value of the most rigorous of them to manufacturers (and therefore to their customers) may well be that they respond to one of the disincentives attached to regulatory marking: that it may commoditise the product, creating the impression that all products conforming to a designated standard are equivalent, and leaving only competition on price. So a proprietary marking scheme can, if it merits it, become a mark of something more.

Voluntary third-party certification schemes therefore have the potential to be a useful mechanism for self-regulation, with opportunities for shared learning and improvement, as well as public protection. On the other hand, there are risks in the lack of regulatory oversight, so such schemes must have sufficient rigour in system design (including, critically, the criteria for assessment), surveillance and enforcement to underpin public confidence. This is addressed in Part V, which also sets out the useful role to be played by trade associations more generally.

14 Market surveillance and enforcement

The regulatory structure for surveillance and enforcement as it currently operates, in advance of changes made in the Building Safety Act, is illustrated in figure 4.

Governance is through three Departments of State:

- The Home Office is responsible for fire policy, including the Regulatory Reform (Fire Safety) Order 2005, which places a duty on a 'Responsible Person' to keep people safe from fire in workplaces and common parts of multi-occupied residential buildings.
- DLUHC is responsible for:
  - Construction products policy, Building Regulations made under The Building Act 1984, and associated guidance in the Approved Documents. The Secretary of State is advised by the Building Regulations Advisory Committee, a statutory advisory body that provides expert advice on building regulations or related matters, and which the Secretary of State will consult on proposals to make or change building regulations.
  - The UK Construction Products Regulations as amended following withdrawal from the EU.
- DBT is responsible for industrial strategy and wider construction policy. The Parliamentary Under Secretary of State (Minister for Business and Industry) co-chairs the Construction Leadership Council which provides sector leadership to the construction industry.
- DBT, working with DLUHC, is also the sponsoring department for BSI, the national standards body, and UKAS, the National Accreditation Body.

As for **regulatory delivery**, Building Regulations compliance is delivered through local authority Building Control (or Approved Inspectors, although they lack enforcement powers); and local

[72] *Construction Industry Products Market Assessment and the Implications for the new Regulator*, Dr Steve Sheppard, Adroit Economics Ltd, September 2020.

authority Trading Standards Departments (or District Councils in Northern Ireland) are the authority for the surveillance and enforcement regime relating to the CPR. This includes market surveillance at the border, and intercepting goods at ports and airports.

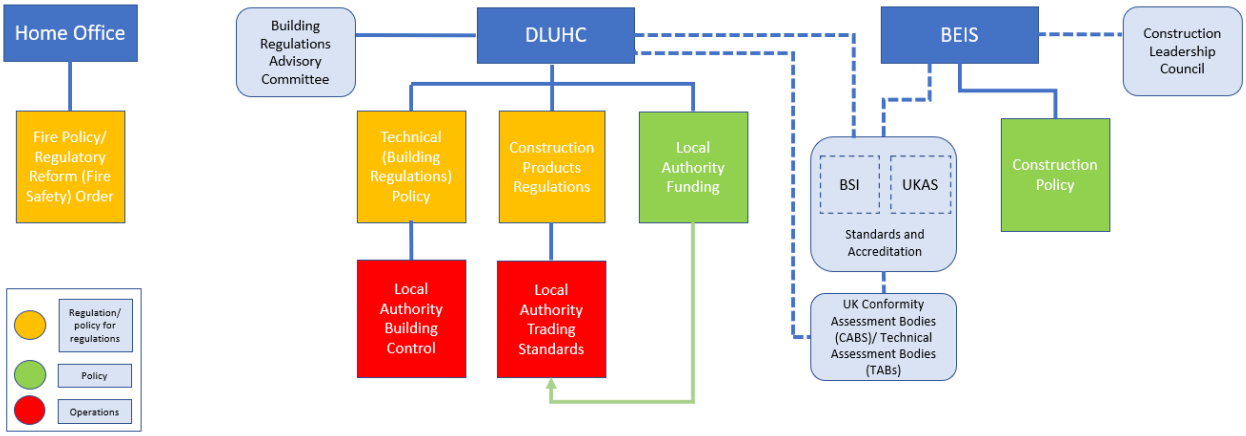

Figure 4: current regulatory/advisory system map for construction (England only)

15 Summary to Part II

Given our remit to review parts of a system that has variously been described (in the Hackitt Review, for example) as opaque, broken and not fit for purpose, it is appropriate to ask whether the best strategy is to discard what exists and start again.

Coming to it afresh, the conformity assessment process established in the EU does indeed appear complex, and some of the consequences of complexity are considered in Part IV of this report. Some of that complexity is the result of seeking to be comprehensive, to reflect the differences across a range of highly variable products, to consider the technical detail that will always be a necessary part of laboratory or other assessment processes rooted in science, and to deal with matters of interpretation where the CPR is not definitive. Comprehension is not aided, though, by the use of acronyms and jargon, nor by the cumulative effect of successive amendments to the relevant legislation, with a mass of documentation related to the original primary legislation and then further amendment necessary to retain the CPR in UK law.

Once grasped, however, the structure of the system comes over as both considered and comprehensive, and the collective documentation that adds up to the Construction Products Regulations as they stand at the base date of this report represents a valuable body of work - precisely because it is so comprehensive and provides sufficient detail (particularly through its guidance notes) to aid consistency of application. It demonstrates the accumulated experience and learning of more than 30 years in use since product regulation was first introduced as a Directive in 1998.

To “start again” would therefore be to lose the benefit of that accumulated learning, and it would also require those who are charged with the task of conformity assessment to “start again” with the training/re-training of staff - when the availability of staff with the appropriate experience, knowledge and skills is the principal constraint in a sector already challenged in terms of capacity.

This comment is, however, qualified in two important respects.

First, it relates to the structure of the system, rather than its content. The framework may be logical and robust, but there are significant issues in its application (both formerly in the EU and currently in the UK) and in the detailed building blocks of the system: in the currency and completeness of the basic building requirements (10 years after the introduction of the basic requirement for the sustainable use of natural resources, there are still no related harmonised standards); in the coverage and content of the standards, and the standards for testing in particular; and in the allocation of products and their essential characteristics to AVCP system levels.

Secondly, and more importantly, the system was designed for a purpose, and that was primarily to serve the needs of a single market. Withdrawal from the EU therefore provides an opportunity not just to reconsider the details of the system with a view to streamlining it, but also to question its purpose.

Linked to this, and most importantly, the evidence of the Grenfell Tower Inquiry demonstrates the Regulations' ineffectiveness in serving the larger purpose of building safety. Whether that was the result of expecting the Regulations to serve a purpose they were never designed for, or of faults in the system, or of matters of institutional or individual default is addressed in Part V.

Part III: Building a Safer Future – The Response to the Fire at Grenfell Tower

16. Introduction: Progress towards the Building Safety Act

Subsequent to the fire at Grenfell Tower, Government initiated a Building Safety Programme involving a series of investigations, reports and plans, including significant proposals for legislative change.

This section of our report looks at the period between the fire and the introduction of the Building Safety Bill in July 2021. It summarises only the headline activity in that period, with a focus on its relevance to the regulation of construction products.

The most immediate actions were the setting up of a public inquiry, announced on the day after the fire, and now in progress under the chairmanship of Sir Martin Moore-Bick; and the commissioning of an independent review, led by Dame Judith Hackitt, who delivered her final report in May 2018 ("the Hackitt Review").

In parallel, Government took action on a number of practical fronts.

Each of these is considered further below, again with a primary focus on construction products and the systems of which they form a part.

17. The Hackitt Review

An independent review of building regulations and fire safety was announced by the Secretary of State on 28 July 2017. The objective of the review was "*to make recommendations, with a particular focus on multi-occupancy high-rise residential buildings, to ensure the regulatory system is fit for purpose and sufficiently robust for the future"* [so as] *to provide further assurance to residents that the complete system is working to ensure the buildings they live in are safe and remain so*"[73].

The review was led by Dame Judith Hackitt, who delivered two reports: an interim report in December 2017, and a final report in May 2018.

The review represents a monumental piece of work, and no summary can do it full justice. We would, however, draw out some key findings summarised by Dame Judith in the foreword to her report that are equally relevant to this review.

The key issues identified as underpinning the system failure demonstrated by the Grenfell Tower tragedy, and other events before and since, included ignorance, misunderstanding or misinterpretation of the regulations; indifference towards concerns raised, with some of those undertaking building work failing to prioritise safety and using the ambiguity of regulations and guidance "to game the system"; a lack of clarity in where responsibility lies; and inadequate regulatory oversight and enforcement - with all of the above creating a "race to the bottom" culture in the industry.

The principles of a system proposed to address this failure include:-

- a clear model of risk ownership, following the principle of risk being owned and managed by those who create it, with both responsibility and accountability made clearer;

[73] Independent Review of Building Regulations and Fire Safety - Terms of Reference.

- a new outcomes (rather than rules) based regulatory framework, with incentives to do the right thing and real "teeth" in robust surveillance and enforcement powers, and serious penalties for those who choose to game the system;
- as a corollary of that, the need for competence on the part of those responsible for delivering to those standards;
- the need to think about buildings as a system, incorporating a series of sub-systems;
- stronger requirements for the testing, labelling and traceability of products that are critical to safety;
- a risk-based approach calling for a higher level of regulatory oversight of residential multi-occupancy buildings; and
- transparency of information and an audit trail through the life cycle of a building.

The recommendations of the report were clearly expressed as a systemic response to a systemic issue, and not as a "shopping list". They were accepted as such by Government and, with some modification as a result of subsequent consultation and scrutiny, were carried through to the Building Safety Act. To limit repetition they are therefore addressed below with consideration of that Act.

More detailed recommendations were also made in respect of construction products and for the process of testing and certifying products, which Dame Judith described as "*disjointed, confusing, unhelpful and lack*[ing] *any sort of transparency*"; and these recommendations are also considered in the relevant sections of Part V of this report.

18. The Government response and consultation

The Government response to the Hackitt Review[74] was to accept all of its recommendations in principle, and to launch a Building Safety Programme which set out to identify buildings at risk as a consequence of incorporating the same design features as Grenfell Tower; to address immediate issues of safety and a subsequent programme of remedial works; to commission a review of the then-current system of the Building Regulations as they related to fire safety; and to look at a longer term review of the system by way of new primary legislation.

A consultation programme was launched in June 2019, running until December 2019[75], and the Government published the summary of responses in April 2020[76].

The product of all of the above was a new Building Safety Act, first published in draft in July 2020, introduced into Parliament on 5 July 2021 and enacted on 28 April 2022.

It is worth noting that, at the point of publication of the first draft of the Bill in July 2020, the Phase 1 report of the Public Inquiry had been published, and the part that some products had played in the spread of fire was understood. However, Phase 2 of the Inquiry did not commence until September 2020, and the evidence most relevant to the assessment, marketing and specification of products, and their incorporation into the works, was still to be heard. Had that evidence been heard, it seems probable that both the coverage and conclusions of the consultation and scrutiny processes that informed the first draft of the Bill would have been rather different.

By contrast, the Bill as introduced into Parliament on 5 July 2021 did have the benefit of the evidence given in Module 2 of the Public Inquiry. It also generally reflected feedback from the consultation and scrutiny process, and recommendations or comments relating to construction products are also raised in the relevant sections of Part V.

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74 *Building A Safer Future - An Implementation Plan*, MHCLG, December 2018.

75 *Building a Safer Future - Proposals for reform of the building safety regulatory system - A consultation*, MHCLG, June 2019.

76 *A Reformed Building Safety Regulatory System: summary of responses to the Building A Safer Future consultation*, MHCLG, April 2020.

19. The Grenfell Tower Inquiry

19.1 Terms of reference

The Public Inquiry was announced on 15 June 2017, the day after the fire, with a brief to "*examine the circumstances leading up to and surrounding the fire*". The Inquiry was formally established on 15 August under the chairmanship of Sir Martin Moore-Bick, and its terms of reference included the following elements of particular relevance to this review:-

(1) the immediate cause or causes of the fire and the means by which it spread to the whole of the building;
(2) the design and construction of the building and the decisions relating to its modification, refurbishment and management;
(3) the scope and adequacy of building regulations, fire regulations and other legislation, guidance and industry practice relating to the design and construction of high-rise residential buildings;
(4) whether such regulations, legislation, guidance and industry practice were complied with in the case of Grenfell Tower and the fire safety measures adopted in relation to it.

19.2 Phase 1

The Inquiry was divided into two parts. Phase 1 was concerned with events in the early hours of 14 June 2017, including the origins of the fire, its development and spread, and the response of the London Fire Brigade and other emergency services. Hearings ran from 21 May to 12 December 2018, and the Chairman published his Phase 1 report on 30 October 2019[77].

The primary conclusions of the Phase 1 report, as relevant to this review, were as follows:-

- The fire was started by an electrical fault in a large fridge-freezer in a flat on floor 4 of the tower.
- The fire probably entered the cladding as a result of a UPVC window jamb deforming and collapsing in the heat, creating an opening into the cavity between the insulation and the cladding panels.
- The fire then spread rapidly up the east face of the tower, around the top of the building in both directions and then down the sides, enveloping the entire building in less than three hours.
- The principal reason for the rapid spread of fire was the presence of the cladding panels, which comprised aluminium composite material (ACM) panels with polyethylene cores. These cores acted as a source of fuel, with the polyethylene in the spandrel/column panels and around the "crown" at the top of the building melting and dripping down the facades, igniting fires below which then travelled back up the face of the building.
- Polyisocyanurate (PIR) and phenolic foam insulation boards behind the ACM panels, and possibly elements of the window surrounds, contributed to the rate and extent of spread of flame.
- Fire then penetrated back into the upper floors of the building as a result of compartmentation being bypassed through the glass of the windows breaking, and kitchen extractor fans deforming and becoming dislodged. Some key fire protection measures inside the tower also failed, including ineffective closers on fire doors.
- There was "*compelling evidence*" that the external walls of the building failed to comply with Requirement B4(1) of Schedule 1 to the Building Regulations 2010.

Recommendations (again as relevant to this review) related to:

- plans and information being made available to fire and rescue services, including information about the materials and methods of construction used in the external walls of high-rise residential buildings;

[77] Grenfell Tower Inquiry: Phase 1 report of the public inquiry into the fire at Grenfell Tower on 14 June 2017, October 2019.

- the regular inspection and testing of lifts; and
- the inspection of fire doors and self-closing devices, with a particular requirement that those with responsibility for the condition of entrance doors to flats in high-rise residential buildings with “unsafe cladding” should be required to ensure that they comply with current standards.

Particular matters of concern to be considered in more detail in Phase 2 included:-
- decisions relating to the design of the refurbishment and the choice of materials, particularly in respect of the use of combustible materials in cladding;
- the regime for testing and certifying the reaction to fire of materials;
- the performance of fire doors in the tower, whether they complied with relevant regulations, and why they failed.

19.3 Phase 2

Phase 2 of the Inquiry was in turn divided into eight modules, as follows (in sequence of taking evidence):-

Module	Topic
1	The primary refurbishment - overview and cladding
2	Cladding products – testing/certification, product marketing
3	Complaints and communication with residents; management of Grenfell Tower, compliance with Fire Safety Order 2005; fire risk assessment; active and passive fire safety measures internal to building
5	Firefighting
6 (part 1)	Government (firefighting)
6 (part 2)	Government (testing)
4	Aftermath of the fire
7	Further evidence from expert witnesses
8	Evidence concerning the deceased for the purposes of the Coroners and Justice Act 2009

As at the December 2021 base date of this review, hearings were part-way through Module 6, part 1.

Up to that point, however, it is the evidence heard in Module 2 that is of most relevance to this review; and even to those accustomed to the many, various and substantial gaps between what might be expected of the construction industry (taken as a whole) and what is subsequently delivered, some of the evidence heard in that module came as a shock, both in its scope and its content. This particularly relates to the apparent lack of regard for the consequences of products that fall short of their claimed level of performance, or which might be inappropriate for their intended use.

We repeat that we take no view on the validity of allegations made or implied in the Inquiry, nor the contribution that the subject of those allegations might have made to the events of 14 June 2017; nor, above all, to questions of accountability or culpability. Those are entirely matters for the Inquiry.

If, however, such allegations are *capable* of being true - and would, in the event of subsequent failure, present a risk to the safety of buildings and their users, then every measure that might prevent that should be considered, and any measures that are considered to be sufficiently effective should be implemented. This bears directly on the contribution that the testing and assessment of products can make to preventing any such issues and their consequences in the future.

So, a useful starting point in addressing gaps and weaknesses in the current regime is to consider the failure of products to perform as they should, and/or failures of the assessment or marketing of products to protect the public, as alleged in the evidence heard during the Inquiry.

A summary of these alleged deficiencies (whether knowing or unknowing) is included in Appendix 5, and they fall broadly into four categories:-

(1) failures on the part of manufacturers to disclose all information relevant to the product and its assessment;
(2) failures on the part of Conformity Assessment Bodies to follow proper procedure in conducting the assessment process, including testing;
(3) failures on the part of Conformity Assessment Bodies to ensure that a certificate or classification report is fully and assuredly supported by the preceding conformity assessment process;
(4) failures on the part of manufacturers to ensure that claims made in a Declaration of Performance for their products are limited to those that are supported by the testing and assessment process.

Given that the fire at Grenfell Tower has been the stimulus for so much subsequent consideration about what might be done to make buildings safer, a test question that we have borne in mind is whether any measures proposed, either in the Building Safety Act or in this report, would prevent a repetition of what is alleged to have contributed to that fire.

20. Interim actions

Prior to the introduction of the Building Safety Bill, there were parallel actions undertaken by Government to take effect in advance of the new legislation. Matters of particular relevance to construction products comprised:-

(1) a series of tests on the combustibility of materials; and larger scale tests on a range of cladding designs incorporating different ACM panels, to provide an evidence base for guidance to be issued to building owners;
(2) a ban on the use of combustible materials in and on the external walls of higher-risk buildings - generally residential buildings more than 18m high[78] (announced in October 2018 and implemented in November 2018);
(3) a testing programme for fire doors, also identified as an issue at Grenfell Tower;
(4) clarification of the testing requirements for fire doors;
(5) new provisions in Approved Document B for sprinklers and for wayfinding and signage for firefighters in new residential apartment buildings of 11m or more in height;
(6) amended guidance in Approved Document B to clarify the use of assessments in lieu of testing, particularly in respect of external wall systems for higher-risk buildings;
(7) new or qualified guidance in Approved Document B, and evidence required to confirm that Regulation B4 of the Building Regulations covering external fire spread is met; and subsequently
(8) a full clarification and technical review of Approved Document B (still in progress as at December 2021).

These actions are in addition to the extensive programme of testing, investigation and remedial work to existing buildings, and advice to the owners of hundreds of buildings across the country adjudged to have unsafe cladding as a consequence of what was revealed by the fire at Grenfell Tower.

The Government also set up a number of bodies through which it engaged with the construction industry, including:-

[78] See footnote 80 for full definition of higher-risk buildings.

- an independent Expert Advisory Panel established in June 2017 to advise the Secretary of State on urgent building safety matters, including the performance in fire of alternative combinations of ACM panels and different insulation materials in cladding, and of fire doors;
- an Industry Safety Steering Group, chaired by Dame Judith Hackitt, with a brief *to scrutinise industry's proposals and progress towards culture change* [and] *to provide constructive challenge, recommend actions and make proposals to overcome blockages and accelerate change*;
- an Industry Response Group established in July 2017 to provide expert practical advice on the remediation programme; and
- an industry-led Competence Steering Group which, with its constituent working groups, published a report[79] on the design of sector-specific competence frameworks and an overarching framework standard, all with the aim of ensuring consistency of skills, knowledge, experience and behaviours across the sector.

DLUHC/National Trading Standards fire door investigation

The fire door investigation is particularly relevant because it clearly relates to the trust that can be placed in products which have (or should have) a critical safety function.

Following a report from the Metropolitan Police that fire doors at the Grenfell Tower had failed, DLUHC ran a series of tests on doors of the type installed - so-called "composite" doors, made up of layers of different materials typically encased in fibreglass. In total, 20 doors were tested in accordance with BS476, testing from both sides (which DLUHC state has always been the regulatory requirement for composite doors, but which had not been the practice of manufacturers). 16 doors failed - two in as little as 14-15 minutes. The programme was then extended to test a further 12 doors from 8 different manufacturers. This time only 3 passed when tested on both sides, with the point of failure varying between the frames, glazed vision panels or letterboxes. The problem therefore seemed to be widespread across the product type, and DLUHC worked with the manufacturers to agree a voluntary programme of withdrawal and recall.

Subsequently, DLUHC repeated the exercise for timber fire doors, testing 26 doors, all from different manufacturers. On this occasion, all doors achieved the 30 minute standard.

Unfortunately, although the tests clearly established inadequate performance on the part of the composite fire doors, the exercise does not aid definitive conclusions about the conformity assessment process more generally. Internal fire doors are not a product for which there was a harmonised standard, so they were not covered by the regulatory process leading to CE marking; and although the belief is that some composite doors had been tested and/or covered by a voluntary certification scheme, there is no record of that. If they were covered by such a scheme, then either it must have been insufficiently rigorous or, as an example of a potential systemic weakness in voluntary schemes, what was marketed was not what had been tested - either because of changes in manufacture or because the product had strayed too far from the testing process by reliance on injudicious desktop studies.

There is no comprehensive record of the testing and certification process to which the timber doors installed in Grenfell Tower had been subjected either, but timber door manufacturers are generally members of a trade association (the Architectural and Specialist Door Manufacturers Association or "ASDMA") for which membership is conditional upon also subscribing to a voluntary third-party certification scheme. Timber fire doors are also a mature product that has the benefit of years of development, testing and assessment.

The use of desktop studies and third-party certification schemes, and the need for both to follow rigorous principles, is considered further in sections 29.3(3) and 32 of this report.

21. The Building Safety Act

[79] *Setting the Bar: A New Competence Regime for Building a Safer Future* - Final Report of the Competence Steering Group for Building a Safer Future, October 2020. See also section 35 below.

21.1 Generally

The product of the Hackitt Review and the subsequent consultations and scrutiny was the Building Safety Act, which has as a primary objective the creation of greater accountability and responsibility for fire and structural safety issues throughout the life cycle of buildings.

The principal measures of the Act which (as the Building Safety Bill) provided the framework for this review include:-

(1) a new category of higher-risk residential, hospital and care home buildings that meet or pass prescribed height criteria ("higher-risk buildings")[80];
(2) a Building Safety Regulator to oversee a new regulatory regime for higher-risk buildings and "*drive improvements in building safety and performance standards in all buildings*", plus new enforcement powers with more serious penalties for breach;
(3) gateways at planning stage, commencement on site and handover for occupation of higher-risk buildings, with the Regulator having the right to enforce a stop if not satisfied with measures taken to ensure safety;
(4) new roles of dutyholders for design and construction, handing on in turn to a dutyholder (or "Accountable Person") responsible for the occupation phase;
(5) creation of a digital record passing information from design intent through to occupation (a "golden thread"), with changes managed and tracked throughout; and
(6) a new Building Advisory Committee (replacing the Building Regulations Advisory Committee) and a Committee on Industry Competence to advise the Building Safety Regulator.

All of these are relevant to consideration of construction products as part of a system.

More directly relevant, though, is Schedule 11 of the Act, and the related secondary legislation granting powers to amend or repeal and replace the Construction Products Regulation.

21.2 Schedule 11 and secondary legislation: Construction Products

Schedule 11 creates wide-ranging powers to impose requirements on the marketing or supply of construction products, with the primary objective of ensuring that products that are placed on the UK market are safe and perform as declared. The intention is to achieve this objective by a supplementary set of construction products regulations set out in secondary legislation. As at the base date of this report, the draft secondary legislation[81] proposes (subject to consultation and scrutiny - and therefore change) the following requirements in addition to the existing provisions of the CPR (which otherwise remain substantially unamended, save for the changes made to reflect the UK's exit from the EU):-

(1) The introduction of a general safety requirement, prohibiting a construction product to be placed on the market unless it is a safe product - which principally means that it "*does not present any risk to the health or safety of persons or, if it does, the risk is as low as it can be compatibly with using the product*".
(2) An obligation for manufacturers, in order to comply with this general safety requirement, to carry out a risk assessment; to design and construct the product taking into account that risk assessment and the ways in which any identified risks may be reduced or eliminated; and to label the product.
(3) The creation of a new category of safety-critical products (defined in Schedule 11 as those where "*any failure of the product would risk causing death or serious injury to any person*"),

[80] The Building Safety Act (Section 31), and the Higher-Risk Buildings (Descriptions and Supplementary Provisions) Regulations 2023, define higher-risk buildings as any building which meets the height criteria of 18m or more (measured as described in the draft Regulations) **or** 7 or more storeys above ground, **and** which in either case contains two or more residential units/dwellings **or** (at design and build stage) care home **or** hospital facilities.
[81] Draft Statutory Instruments 2022, Building and Buildings Construction Market Standards, The Construction Products Regulations 2022, published 14 October 2021.

and the right for the Secretary of State to list such products and request BSI to draw up a standard for them setting out their intended uses, safety critical properties, required performance and AVCP system level.

(4) An obligation for manufacturers of safety-critical products to apply the AVCP system set out in such standards and ensure that the product meets the required performance; to draw up a Declaration of Performance; to UKCA mark the product; and to ensure that series production maintains compliance with the Declaration of Performance.

(5) An obligation for manufacturers of all products to make available technical documentation and customer information in "*easily understandable English*"; undertake sample testing where appropriate; investigate and keep a register of complaints concerning the safety of the product; keep other economic operators, the relevant enforcement authority (and the Secretary of State in the case of safety-critical products) informed if any such testing or investigation shows the product may present a risk; and, where there is reason to believe that a product is not in conformity with the general safety requirement or the Declaration of Performance, to take immediate measures necessary to bring the product into conformity, and/or to withdraw or recall the product.

(6) The specific prohibition of false or misleading claims about the performance of products, including misleading by omitting anything relevant to the product's performance.

(7) Extensive provisions relating to offences, market surveillance, investigation, enforcement and sanctions, including new powers for enforcement authorities.

(8) Provisions relating to the accreditation, approval, monitoring and restriction, suspension or withdrawal of approval of Approved Bodies, all by reference to scheduled "Approved Body requirements" carried forward from the existing CPR, including:-

  (i) a prohibition of its personnel engaging in any consultancy services in relation to the activities for which the body has been approved;

  (ii) a requirement, in conducting conformity assessment, to "*respect … the part played by the product for the fulfilment of all basic requirements for construction works*";

  (iii) an obligation to withhold, suspend or withdraw a certificate where a manufacturer has not ensured the constancy of performance of the product and it no longer has the required performance, unless and until appropriate corrective action has been taken, and to inform the Secretary of State accordingly; and

  (iv) a requirement also to notify other Approved Bodies carrying out "*similar third party tasks*" with "*relevant information on issues relating to negative and, on request, positive results from these assessments or verifications*".

The practical effects of these proposed changes are considered in Parts IV and V, acknowledging that the Statutory Instrument published on 14 October 2021 was an indicative draft only and will be subject to both scrutiny and consultation. In addition, the Government will publish a draft New Burdens Assessment in due course, outlining the implications for local authorities in implementing the proposed changes.

21.3 National Regulator for Construction Products

When the draft of this Report was completed, the proposal was for the Building Safety Act to introduce new powers to allow for enhanced and strengthened regulation of construction products, including paving the way for a new National Regulator for Construction Products ("NRCP") in the Office for Product Safety and Standards, who will be responsible for[82]:

- market surveillance and oversight, including maintaining a national complaints system and supporting local Trading Standards so that safety concerns can be spotted and dealt with quickly;
- enforcement of the improved Construction Products Regulations, including removing from the market products that pose a safety risk;
- providing advice and support to the industry to improve compliance;

[82] DLUHC policy paper, *Outline Transition Plan for the Building Safety Bill*, published 5 July 2021.

- providing technical advice to the Government;
- carrying out or commissioning its own product-testing to investigate non-compliance; and
- establishing a robust and coherent approach with the Building Safety Regulator and Trading Standards to drive change across the sector.

All construction products marketed in the UK will fall under this regulatory regime[83]. The Building Safety Act and secondary legislation under it will grant the Regulator powers designed to ensure that only those products that do not pose a risk to safety can be marketed, and to order their withdrawal from the market if they do.

At the time of writing, OPSS is developing its operating model for taking responsibility for national, novel and contentious issues; and until secondary legislation is adopted into law, these matters will continue to be the responsibility of local authority Trading Standards Services (Environmental Health in Northern Ireland), save to the extent that OPSS can act in the name of the Secretary of State[84].

[83] As above, Northern Ireland will remain subject to EU law, but OPSS will have enforcement powers.
[84] DLUHC footnote: the Building Safety Act 2022 has now paved the way for the new National Regulator for Construction Products. The OPSS has begun to set up the Regulator and is working closely with other regulators (including Local Authority Trading Standards) to ensure construction products currently on the market are compliant. As set out above, the Government will introduce secondary legislation under the Building Safety Act to give the new Regulator access to a strengthened toolkit. In the interim, it has also made further secondary legislation, the Construction Products (Amendment) Regulations 2022, which adds the Secretary of State as an enforcement authority of the CPR. See section 36.3 and footnote 154.

Part IV: The Context for Reform – Objectives, Principles and Cross-cutting Issues

22. Introduction

As Parts II and III of this report demonstrate, this is a complex regulatory landscape, made no less complex by the fact it is in transition.

In line with the terms of reference for this review, Part V of our report will address gaps or weaknesses in the processes by which products move through the supply chain.

The great majority of those products, it must be said, make that journey without providing cause for complaint or representing a risk to the future safety of the building or its occupants. Part IV therefore commences with looking at that journey and the actions and information required to ensure smooth passage at each step – the high-level objectives of the process and the guiding principles that should inform proposals for change.

There then follow more practical principles, including consideration of some critical decisions that will determine the detail of subsequent recommendations, and two critical issues that cut across all others: namely complexity and capacity.

23. Objectives and principles: the product journey

The ultimate objective of the system of which conformity assessment forms a part must be that every product will meet the performance that is both required and expected of it. The product will, however, pass through many processes and hands before that end is reached; and considering a product through its life cycle the sequence of steps that should, in a new regime, lead to a product that can be used with confidence (its "chain of custody") should comprise:-

(1) clear, consistent and comprehensible regulatory standards or general duties of compliance to establish fitness for purpose against the intended use and desired performance;

(2) where no such standards are available, a means of developing criteria for performance with the same objective and rigour;

(3) clear regulatory requirements for the means of assessing conformity to standard, including testing and certification as appropriate;

(4) principles for the extrapolation of testing and assessment data without loss of validity;

(5) conformity assessment conducted by suitably qualified laboratories or certification bodies, acting impartially and independently in facilities operated to a suitable standard using a sample that is representative of what is to be manufactured and placed on the market ("series production");

(6) a level of oversight of the conformity assessment process and those who conduct it that assures continuing quality, impartiality, transparency and accountability;

(7) assurance that the product on the market continues to conform to standards tested ("constancy of performance"), including periodic batch testing during series production and an obligation on manufacturers to declare any change in the specification, source or manufacture of a product;

(8) approved voluntary schemes for less safety-critical products, as an alternative to the regulatory route, but to serve generally the same objective and having equivalent rigour;

(9) manufacturers' declarations of performance to be supported by sufficient product information, including testing, classification and certification reports (and any limitations on the applicability of test data), to enable dutyholders to make decisions about the appropriate/inappropriate use the product and how it should be handled, installed, maintained and operated so as to maintain its safety in use;

(10) products being marketed only on the basis of claims made in clear, plain language that does not mislead, and with every claim verifiable;
(11) products being selected for use on the basis of fitness for purpose, by reference to manufacturer's information that is adequate to make that decision;
(12) substitution of products being controlled so that a product that is fit for purpose is not replaced with one that isn't;
(13) products being clearly labelled/identifiable, and traceable back to source and conformity assessment at any time in their life cycle;
(14) products being handled and applied/installed in accordance with manufacturer's instructions adequate to ensure declared performance;
(15) products being used and maintained in accordance with manufacturer's instructions adequate to ensure constancy of performance;
(16) with all of the above being conducted by people with the necessary competence and supervision;
(17) and being subject to surveillance that is adequate (and adequately resourced) to pick up a lack of compliance at the earliest opportunity, including investigating complaints or suspected non-compliance and taking appropriate enforcement action where necessary;
(18) effective and dissuasive sanctions for non-compliance; and
(19) the removal of unsafe or non-compliant products from the market and, where they represent a serious risk to safety, from completed work.

Sitting above this linear process there must be guiding principles, and these are simply stated:

- The process has to be both trustworthy and trusted; and those engaged in the process therefore also need to be trustworthy and trusted.
- This means that the processes also need to be sufficiently transparent to dispel suspicion; and those engaged in the process need to be accountable for their actions.
- As a disincentive to malpractice, and encouragement to the majority who play by the rules, it must be made as clear as possible to both (and to enforcement agencies) that malpractice is occurring - with the primary control then being enforcement and sanction.

Certainly there are balances to be struck: between mandatory and voluntary standards and codes; between statutory control and self-regulation; between preventative oversight and enforcement and sanction; between prescription and performance (leaving controlled opportunities for innovation); and so forth.

There are also unintended consequences to be avoided, and the opportunities for that are manifold in seeking to apply a single set of rules to thousands of different products; or in responding to crisis without the fullest possible appreciation of potential ricochets.

The qualities of clarity, transparency, accountability (or "duty") and trust are not matters of balance, however. They are not negotiable. They run throughout the many recommendations of Dame Judith Hackitt, and we have sought to apply them in extending that thinking to the testing regime, with an over-arching objective in mind: **to restore the conformity assessment process and data derived from it as a trusted public good.**

24. Determining principles

24.1 Introduction

One key recommendation of this review is the need for Government and the construction industry to work together to develop the machinery upon which the regime envisaged in the Hackitt Review and made statutory by the Building Safety Act will depend.

To embed real lasting change will require sustained engagement between Government and industry, more focused on practical action, and conducted with a clear understanding of which

parties are best placed to take lead responsibility for each line of the programme and the support that each party needs from the other in order to get the job done. This is considered further in section 39 below. It does, however, need to be founded on a number of determining principles - not just the guiding principles noted above, which we would hope and expect to be common ground, but on a short list of issues where there are policy options, and where the choice of option will determine what follows.

24.2 Alignment/ non-alignment with EU processes

In its response to the Hackitt Review, the Government noted, in connection with recommendations relating to construction product regulation, that "*the proposals for domestic regulatory change will need to be considered in the context of the UK's exit negotiations and proposals for a future relationship with the EU, including the UK's proposal to commit to ongoing regulatory harmonisation as part of a common rulebook*."[85]

That precedes the Withdrawal Agreement settled between the EU and the UK in October 2019, and the assumption of "*ongoing regulatory harmonisation*" has not been given as a matter of direction for the purposes of this review. We have therefore taken the opportunity to look at changes that would be possible assuming that alignment is *not* a requirement – particularly given the otherwise limited scope for change in the currently complex conformity assessment system, with all of its prescribed processes and extensive organisational infrastructure, as set out in Part II.

The opportunities of a fresh look with a view to change extend to:-

(1) The relevant standards to be applied, in respect of both the products and testing them. There are many national or international standards which could serve as a basis of assessment, but which are not harmonised/designated; and, indeed, there are many European (CEN) standards for which harmonisation has been agreed at a technical level, but which do not have formal Commission approval because of the current standstill caused by legal and policy issues. So the power to adopt any national or international standards as the basis for a designated standard would provide continuing access to a large pool of intellectual resources, and the human resources necessary to develop them. The issue would therefore be developing (or possibly accelerating) standards which are required as a domestic priority only.

(2) The alignment of the basic building requirements scheduled in the CPR with those scheduled in the Building Regulations, to create a tighter and more logical relationship between the two, given that both should share objectives.

(3) The details of the AVCP system. The continuance of the system in some form is a presumption of the draft CPR22, and we are supportive of maintaining the framework, but in the event of maintaining alignment only on an elective basis there would be considerably more freedom to manoeuvre in respect of:
   - the inclusion of particular products in (or their exclusion from) the system, whether or not there is a harmonised standard;
   - the AVCP level at which products/essential characteristics should be assessed;
   - varying the requirements at any system level; or
   - simplifying the system levels themselves.

(4) The organisational infrastructure for developing standards and operating the conformity assessment process.

(5) Finally, the whole purpose of marking products under any scheme, which is considered below.

[85] *Building a Safer Future - an implementation plan*, MHCLG, December 2018, para 7.2.

Hereafter, therefore, all recommendations in this report are based on the assumption of freedom to act unilaterally on the basis of national priorities, subject only to acknowledging the implications of the Northern Ireland Protocol and WTO rules.

Divergence from the EU model does have consequences, however, and some of these will pose a considerable challenge. These include:

- the need for the UK to replicate the infrastructure for conformity assessment, setting national standards etc, with reliance on resources drawn from a substantially smaller pool;
- capacity constraints as a result of the above;
- the cost and disruption that comes from any regulatory change;
- the need for manufacturers who export from the UK or import to the UK to operate two systems, representing additional cost and a potential disincentive to both.

Because of the cumulative effect of these, the indication of feedback received in the review is that the preference of manufacturers (or at least manufacturers with international operations, who will still be required to obtain CE marking, using the services of Notified Bodies accredited in the EU to export to EU countries) would be for a bilateral agreement with the EU that secures mutual recognition of conformity assessment systems; or for the UK to operate a system that shadows the EU, and continues to do so. It is, of course, possible that those who operate only in the GB domestic market will feel differently (and it is worth re-stating that about three-quarters of all products produced in the UK are used in the UK).

It is therefore a case of weighing the challenges of diverging from the EU system (if indeed there is an alternative, as staying aligned would clearly be a matter for political negotiation) against the opportunities of doing so, considering the implications not just for all manufacturers, but also for their customers. Many other decisions flow from this principle, and there could be considerable disruption if the position on this particular issue is resolved only after the proposed changes to the regulatory framework for construction products have passed into law.

24.3 The Purpose of UKCA marking

As already noted, CPR305/11 has its origins in the creation of a level playing field for the purposes of freedom of movement of goods within a single market, and although its aims have since expanded, the European Commission remains clear that "*the main objective of the Regulation...is to make the internal market work properly for construction products ...by laying down harmonised conditions for their marketing*"[86].

But in the event of alignment with the EU no longer being an objective, there is an opportunity to ask the fundamental question, what exactly is UKCA marking for? And, however that might be answered, is there a more logical (or more purposeful) basis for marking a product than the happenstance of it being covered by a harmonised standard negotiated and endorsed in the EU?

By maintaining the link between standards and the assessment process, and between the assessment process and marking, the UKCA mark could signify whatever the standards themselves signify, and it could effectively become a quality mark signifying whatever the standards are designed to achieve - whether that is intrinsic quality, durability, safety, sustainability or whatever might become of regulatory interest.

The question is therefore whether the connection between statutory regulation and marking is to be retained, and is to remain exclusive. As far as products that are required to follow the AVCP system are concerned, we are of the view that they should certainly be marked as confirmation that they have been assessed as meeting the standard. Consideration does, however, need to be

[86] *Executive Summary of the Evaluation of Regulation (EU) No. 305/2011*, European Commission Staff Working Document, 24 October 2019.

given to a transition period during which some products could be marked as meeting the requirements of a historic standard that might then be adjudged unfit for purpose.

A voluntary route to marking could also represent an incentive to increase participation in third-party certification schemes, but this would clearly depend upon the rigour of such schemes, and the confidence placed in standards adopted as a benchmark for them. If both the standards and the assessment process are trustworthy, then there would be little basis for saying that the statutory route requires and justifies marking, but the voluntary route does not.

24.4 What is to be regulated

This leads on to the question of what should be regulated, where the basic choice would be:

- either to regulate broadly, seeking to cover all products where any matter of public interest might arise - such as environmental impact, or consumer protection in respect of defective goods, or a lack of fitness for other purposes; or
- to focus in depth on (for example) products that are perceived as critical to safety.

Like the issue of alignment for the purposes of international trade, the policy line taken on this will drive the demand for testing, and Approved Bodies (or those aspiring to be approved) will need clarity if they are to be encouraged to invest in increasing capacity.

For the purposes of this report, the focus is on products that might predictably represent a risk to the primary objective of safe construction; and this involves looking at the function that products might play in achieving that, and then seeking assurance that they will perform as required.

This will not encompass the entirety of what it means for a product to be “safe”, as products may carry intrinsic risks unconnected to their final use; but in terms of where preventable harm might arise, and certainly in the event of fire, a concentration on safety-critical *construction* probably represents the most significant single step that could be made to increase the confidence that can be placed in the assured performance of products.

It also provides a focus on how priorities can be directed towards the greatest potential good - a focus on those things that keep the whole building and all of its occupants safe, and looking at real depth in the regulation and assessment of those products, rather than relying upon the breadth of “catch all” regulatory coverage.

The concept of safety-critical construction is therefore addressed in section 25.8 below.

24.5 Government and/or industry

A fundamental consideration in the Hackitt Review is the distribution of responsibilities between Government and the construction industry. This has two dimensions:-

(1) the extent to which certain issues should be regulated in the public interest - where there will be consultation, but where authority rests entirely with Government; and

(2) the responsibility for actions necessary to enable or support a regulatory regime, putting in place the “machinery” referred to in section 24.1 above.

For the most part, it is the industry that should have both the skills and knowledge to carry most of the burden of developing that machinery, and to take responsibility for it, but it needs to be in the context of a plan agreed with Government. It also needs to be recognised where Government needs to act to address market failure, and where continuing engagement is necessary to ensure progress.

The move from the status quo to a new regime stimulated by the Hackitt Review represents a major transition; and the transition plans that concentrate on the legislative programme, the establishment of a new regulatory regime and high level principles (the business of Government) need to be supplemented with a plan for all the practical work which is an essential precondition to the new regime working effectively (generally the business of the industry, prompted and supported by Government).

In the sections that follow, we identify those actions relating to the trust that can be placed in products that we believe should be the primary responsibility of the industry, and then collect those together in a summary (see section 39). The preparation and agreement of such a plan, and most particularly the allocation of responsibilities for action required to deliver it, is in itself one of those essential preconditions to the restoration of trust in the system.

24.6 Performance and/or prescription

It is hard to argue against the principle of framing requirements (whether they might be regulations, standards or specifications) in a way that focusses on the desired outcome, rather than how that outcome might be delivered. It leaves those responsible for meeting those requirements with freedom to innovate and to compete about how minimal requirements might be met in ways that best suit their own way of working.

It is also much easier to set a performance-based requirement (“make it do this”), rather than a prescriptive one (“make it like this”).

There are, however, disadvantages in this approach too. These include the following:-

- Specifying by performance assumes a level of understanding and competence on the part of suppliers to produce a solution which meets all required aspects of the desired performance, and on the part of their customers to analyse the solution to the same purpose. This is not an assumption that can be made reliably across every part of so diverse a sector, with low barriers to entry and practice.
- It also assumes the availability of the skills and resources required to develop bespoke solutions that will deliver the desired outcome. As an alternative, being able to follow more prescriptive guidance for common building situations, or resort to “deemed to satisfy” conditions, “robust” or “accredited” construction details or the like can provide access to the market for smaller businesses and economies for all. It can also encourage the adoption of tried and tested solutions that are based on conservative design principles.
- In the absence of effective, diagnostic testing and assessment, a failure of performance may not manifest itself until the subject of the regulation, standard or specification is called upon to perform - which will usually be in a completed building, when the remedy may be costly, or in an emergency, when the consequence may be tragic.
- As a consequence of the same principle, and particularly relevant to construction products, the shortcomings in the product that may lead to such a failure will rarely be apparent “ex works”. Effective surveillance is therefore difficult or impossible.

As an extension of this last point, although it is acknowledged that standards of any type can be “gamed” if the assessment and enforcement process lacks rigour, the lack of prescriptive detail also leaves room, in an already contentious area, for disagreement and dispute. In our discussions with Trading Standards Officers, for example, they have referred to instances where enforcement is frustrated by the argued inconsistency of standards and differing opinions as to the performance to be achieved by a particular product.

We would add that the choice between a prescriptive and outcome-based approach does not have to be a binary one. It is just as much a matter of timing as the industry transitions from one which, in some matters, needs direction to one that knows what to do; and there needs to be both a plan and a reasonable programme for that transition. In the meantime, the challenge is to

balance the advantages and opportunities of a more open, performance-based requirement with its disadvantages and risks.

In the context of testing, we believe this balance is best struck by having a prescriptive standard for testing, with the objective of establishing conformity with a more performance-based standard for the product. Taking fire doors as an example, the standard for the door itself should (as it does) require a defined performance (for example, 30 minutes' fire resistance), however the door might be made; whereas the means of testing should be as prescriptive as it needs to be to give confidence that the performance will be delivered, and constantly.

Looking beyond testing, though, if broad performance-based statements on their own were enough, then there would be little need for any statement about products beyond the provision of Regulation 7 of the Building Regulations that requires them to be "*adequate and proper* [and] *appropriate for the circumstances in which they are used*".

At the other extreme is the fire code enacted in Abu Dhabi after the Tamweel Tower fire[87], which is modelled on the US fire codes and runs to some 1,350 pages. It raises a simple proposition: that, wherever regulations might be pitched on the scale of performance versus prescription, a body of knowledge, made relevant to the circumstances in the UK, needs to exist somewhere as guidance, and as a basis for education and training. As to where that "somewhere" may be, an issue that has arisen repeatedly in consultation for this review is that there is currently no "centre" to the assembly and dissemination of that body of knowledge. We therefore make a recommendation about this in section 39.2.

A comparison is often drawn with health and safety at work, and particularly with the Robens report of 1972, which concluded that there was "*too much law*", that those most able to understand and manage risks are those who create them, and that the principles of the legal framework should be performance (or outcome) based.

However, many of the risks associated with the use of products are beyond the control of the manufacturer once they have provided adequate product and safety information.

Also, while noting its disadvantages, a DBT research paper[88] posits a set of circumstances in which there are advantages in a more rules-based approach. These include where there is a need for a step change in addressing bad practice, with the first requirement being compliance rather than innovation; or where there are "*manifest hazards, high risks or a high level of societal concern*"; and where it is possible to write rules for compliance. These circumstances are relevant to construction product regulation, and although responsibility for meeting a regulatory objective should not be passed to regulators alone, absolving the regulated from all responsibility, we believe that there is justification for taking a more prescriptive approach in producing conservative principles for safe construction - and safety-critical construction in particular. We return to this in Part V.

Finally on this subject, and by way of a cautionary tale, the same research paper quotes a 2007 study that observed "*that a consequence of the goal-based regulation approach being applied in relation to fire safety is that fire-protection engineers have become more prominent in certifying whether a particular structure is adequately resistant to fire...*[but] *any problems in accountability have...been tempered by a greater relative degree of professionalism of the fire-protection engineers*".

24.7 Universal principles, or special rules for higher-risk buildings

[87] *UAE Fire and Life Safety Code of Practice*, United Arab Emirates Ministry of Interior, General Command of Civil Defense, September 2018.
[88] *Goals-Based and Rules-Based Approaches to Regulation*, DBT (then BEIS) Research Paper No. 8, May 2018.

As a general principle, it is problematic to have different regimes for any parts of the design and construction process which rest on common principles or methodologies but are separated by matters of definition. We recognise the potential benefit of differentiating higher-risk buildings in the interests of proportionality, and also because change programmes have to start somewhere, but many of the propositions of the Hackitt Review and provisions of the Building Safety Act are equally valid for projects that fall outside the current definition of higher-risk buildings, and are actually more likely to be adopted and become routine in the industry if they apply generally. This is the case with the dutyholders and competence requirements, for example, which will apply to all work to buildings that are subject to the Building Regulations. In addition, of course, the definition of higher-risk buildings may change.

To the greatest possible extent, therefore, plans made with the industry should have as their end objective the wholesale adoption of the principles established, albeit their regulatory force may not be universal. This objective would extend to:-

- standards for labelling and traceability;
- gateways - already adopted on a fairly widespread basis as a principle for construction project planning;
- the golden thread - given the critical need to get information required to maintain and operate buildings effectively into the hands of all building owners and occupiers.

25. Systemic challenges

25.1 Introduction

With decisions about these “determining principles” made or assumed, consideration moves on to the systemic challenges to the question of who is accountable, and for what, and how to create clearer and greater accountability - a founding principle of the Hackitt Review, as enshrined in the Building Safety Act. We start, though, with the question, “accountable for what?”

25.2 Coverage

The first systemic weakness of the current system of product regulation stems from the limited coverage of the CPR itself and in its definition. These exclude from the coverage of the CPR all of the following:-

- products for which there is no designated standard (which, by popular understanding, is about two-thirds of all products on the market);
- any product which is intended to be used in a way not contemplated in the designated standard (in which event there is no requirement to demonstrate conformity, nor to mark the product);
- any assembly of products, except for those marketed by a single manufacturer and assembled in accordance with their instructions (“kits”);
- any materials not used in permanent construction (or not “*placed on the market for incorporation in a permanent manner in construction work …*”).

To dispose of the last of these first, extending the CPR only to permanent works looks, on the face of it, like an anomaly: the requirements of products (such as steel) used in temporary works are no less than they would be in permanent works. However, although those requirements may be no different, the end users for temporary works are the constructors, who can therefore make their own decisions about product performance with no obligations to subsequent dutyholders. No less caution is required, and there are still obligations under the CDM Regulations, but in the absence of any evidence that this is a risk that should be managed by regulation, the marking of products to be used in temporary works probably does not need to be a regulatory matter.

The issue of “kits” is more complex, but the existing definition is a pragmatic one, and regulations that create a requirement for products by different manufacturers to be assessed collectively would create an impossible duty for manufacturers, and there would be no clear boundary between their obligations and those arising under the Building Regulations. This does not mean that manufacturers should have no responsibility for considering combinations in which their products might be used. Nor does it mean that there should be no regulatory interest in systems testing, but that is a different issue (which is considered in section 29.3 below).

This leaves the question of coverage. A limitation of the CPR to products for which there is a designated standard has two effects:-

- it may exclude from regulation products which play a critical part in building safely; and
- conversely it may include products for which there is no great need for regulatory control.

It also means that the prime determinant of whether or not something is regulated (the existence of a standard) is the product of a standardisation regime that has been described in an EC working document as demonstrating “*insufficient performance and output quality*”[89].

Whether there is a better way can only be considered in the context of the purpose of marking and what is to be regulated, and then the duty owed in respect of any products which are to be regulated.

First, though, we address two other systemic challenges that arise in connection with almost every aspect of this review, and which represent obstacles to any reform: complexity and capacity.

The two issues work in tandem: resources cannot be expanded quickly if recruits first need to master the complexity of what they are expected to do; a system that cannot be readily understood by those who should depend upon its product (or those responsible for surveillance and enforcement) is unlikely to provide the level of public protection that is its very purpose; and plans for reform will come to nothing (and may be positively harmful) if they are simply loaded onto an already stretched system.

25.3 Complexity

In order to carry out their duties, Approved Bodies involved in testing for the purposes of the CPR are subject to the inter-connected regime of regulation, standards and guidance summarised in Part II of this report and comprising:-

- the existing Construction Products Regulation itself and all of its delegated amendments;
- the extensive guidance issued (to date) by the GNB;
- the standards governing their own operations (specifically ISO/IEC 17025 for testing services in laboratories and ISO/IEC 17065 for certification services);
- the designated standard(s) for the product being assessed;
- any other relevant “horizontal“[90] test standards (relating to fire resistance and reaction to fire, for example);
- any specific requirements of UKAS made as a result of continuing surveillance;
- further legislation retaining the CPR in UK law, and the secondary legislation on construction products proposed under the auspices of the Building Safety Act.

In addition, although there must be no amendments or additions to the prescribed process in the CPR, the terms of agreement struck between Approved Bodies and manufacturers, and between Approved Bodies and UKAS, may contain matters of clarification or detail.

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[89] European Commission Staff Working Document - *Executive Summary of the Evaluation of Regulation (EU) No 305/2011*, 24 October 2019.

[90] Horizontal test standards are those which are common across a number of product families. See https://www.gov.uk/guidance/horizontal-test-specifications-for-construction-products.

All of this process is in addition to the necessary knowledge of the science and of the equipment used in testing; and added complexity comes from the fact that the testing process itself is highly technical, and the science involved (particularly in respect of fire) will be comprehensible only to specialists.

It is also worth observing that familiarity with this mass of material is required (or should be) on the part of those who assess Approved Bodies on behalf of UKAS as well; and there also needs to be sufficient understanding on the part of those responsible for surveillance and regulation of the sector.

The first consequence of this is that the principal constraint on the expansion of the activities of the Approved Bodies and UKAS, and the alertness of the Regulator and enforcement agencies, is always going to be the availability of people with the necessary knowledge and experience.

A second consequence of this complexity is that a “bubble” is created, containing those who understand the landscape of standards, testing and assessment and excluding those who do not. Amongst those excluded are frequently those who design and construct buildings, who consequently have very little understanding of the processes by which the conformity (or otherwise) of products to standard is established.

This in turn means that there is limited exchange of individuals with different viewpoints between these two worlds, and so to a lack of understanding can be added a lack of challenge. In addition, because the specialist knowledge is required both in the Approved Bodies and in those who accredit and regulate them, and the knowledge pool is limited, some of those who “guard the guards” were amongst those guarded in a previous life. This represents a threat to impartiality, and adds to the perception of “cosiness” which is a frequent charge about the relationship between regulators and those they regulate (or assessors and the assessed).

The obvious reaction to all of this is to simplify the process itself, and options for this are proposed in Part V. However, much of the complexity is the result of seeking to apply a single framework to a massively diverse range of products, whilst keeping some proportionality in the process - and hence the separate levels of the AVCP system. Simplification could therefore come at the price of a loss of proportionality; and given the inter-relationships between the parts of the process there is a significant risk of changes to one part having unforeseen knock-on effects on other parts.

None of this is a reason for communications about the process to be as hard to understand as the processes themselves, however; and it is all too plain to see the consequences of products being chosen or changed without adequate understanding or enquiry about the independent verification that supports performance claims made for them. There therefore needs to be sufficient understanding about the process for specifiers and buyers to know what information to look for and where, and what questions to ask.

Finally, endeavours to understand the regulatory landscape are further complicated by the sheer volume of amendments made to CPR305/11, and the amount of cross-reference necessary to get the complete picture. The 2019 EU exit-related Regulations retaining CPR305/11 in UK law, for example, detail the repeal, modification or amendment of more than 80 European Commission decisions or delegated regulations.

The Building Safety Act[91] also includes powers to allow the repeal, amendment or re-enactment of all retained EU law, the 2019 and 2020 Regulations themselves and any other enactment other than an Act of Parliament; and the indicative draft of the secondary legislation proposed under the Act adds yet more complexity to an already complex body of regulation.

[91] Schedule 11, paragraph 21.

It would be a considerable service to those who need to understand and follow the regulations if this could be considered, and relevant secondary regulation could, to the greatest possible extent, be brought in as a single set of consolidated regulations; or if an unofficial consolidation could be published by Government, bringing all current Construction Products Regulations into a single document. This would avoid the enormous scope for waste and confusion that would be the consequence of all of those with an interest in the regulations having to do that individually.[92]

In addition, the industry should produce a plain language guide which takes all of those who need to know how the system works through the revised conformity assessment processes, whether regulatory or voluntary. Examples are provided by the guides previously produced by the CPA and others[93] and by the European Commission[94].

Beyond that, and for those who do not need to know the detail but do need to know the principles of the process and its importance to appropriate product selection, the industry should include information about the process in its education programmes - whether they relate to designers, constructors, facilities managers or anyone with a responsibility for the safety of buildings.

Recommendation 1, re complexity: to improve the accessibility of legislation and guidance, and to promote understanding of the regime for the regulation and assessment of construction products

1.1 Government to use the opportunity of bringing in secondary legislation relating to construction products to consolidate the relevant legislation as much as possible; or alternatively to publish an unofficial consolidation that brings all Construction Products Regulations (as they will exist after implementation of the secondary legislation) into a single document.

1.2 Government and industry to publish and keep updated a comprehensive guide, in plain language, describing the conformity assessment processes prescribed in the Construction Products Regulations.

1.3 Industry to include in built environment education courses a general understanding of the conformity assessment process across the industry and its importance in product selection and design.

1.4 Industry to promote awareness and understanding of the conformity assessment process across the industry, at levels of detail appropriate to different functions within the supply chain, with particular reference to the responsibilities and requirements of dutyholders.

[92] Although consideration of the Building Regulations themselves is beyond the scope of the terms of reference for this review, they are also affected by multiple amendments, creating a barrier to a full understanding of their requirements. Thought might usefully be given to some consolidation here too, whether formal or informal.
Post-dated footnote: as a significant contribution to consolidation, and in response to a recommendation of the Hackitt Review, Government has published an enhanced Manual to the Building Regulations and a fully searchable pdf of the Merged Approved Documents. See https://www.gov.uk/guidance/building-regulations-and-approved-documents-index, updated 8 March 2023.

[93] *Guidance Note on the Construction Products Regulation*, April 2012.

[94] European Commission publication *CE Marking of Construction Products, Step by Step*, September 2015.

25.4 Capacity

In Chapter 7 of her final report, Dame Judith Hackitt noted that her recommendations would be "*likely to drive the need for more testing than is carried out today*" and that this would create the need for more test houses. The recommendation (Recommendation 38) was that "*additional test houses should be established and certified*"[95]; and that this should be done by accrediting additional houses, rather than increasing the capacity of the existing ones – although it was not made clear how that was to be achieved.

The final report of the Scrutiny Committee built on this by recommending that the Government should establish the capacity of the testing market and, if necessary, provide the necessary funding to increase that capacity.

There are indeed issues on a number of fronts that are going to increase demand not just for testing houses but for the full machinery of accreditation including the setting of standards, the conformity assessment process and the accreditation of those responsible for that process. This increase is going to come not just from the presumption that there needs to be more testing of products (and system testing in particular), but also from the requirement for products to be tested as part of the transition to UKCA marking; from the requirement, following departure from the EU, for all assessments to be conducted by bodies based and accredited in the UK; and from the demand for more voluntary third-party certification schemes.

Specialist testing

There are particular issues around UK-based testing capacity for a number of specialist tests for which there is either no facility or very limited capacity. These include:

- the full temperature range of tests for duct insulation
- accelerated ageing tests for vacuum insulation
- smoke leakage tests for fire doors
- pipe insulation
- microbiological growth on sanitary sealants
- a range of tests for coated glass, laminated glass and mirrors
- thermoplastic pipe for drainage and sewage systems
- radiators
- trench heating

The capacity issue is exacerbated for some products that require considerable time in the testing process – for example synthetic renders and render-based brick slips and some sealants and adhesives. These require a minimum of 1 month and anything up to 3 months to cure.

Source: Construction Products Association paper dated 6 October 2021

As far as the Approved Bodies (and testing facilities in particular) are concerned, and as noted above, the principal constraint on growth is not funding in general. Nor, in at least the medium to longer term, is it access to premises and equipment (except for some specialist equipment for which there is a long lead-in date). Rather it is the availability of people with the necessary knowledge, skills and experience - much of it highly technical, and all of it covered by a regulatory or quasi-regulatory framework that is characterised by the complexity already referred to. So unless funding is directed towards that aspect of capacity building, then it is more likely to result in increased cost and inefficiency and/or in moving those scarce resources around without increasing net capacity.

One possible exception to this is the need to make capacity available to the Regulator for the purpose of sample testing and analysis as part of the enforcement process; and there are two ways of doing that: to book time with existing testing houses (and, given the capacity constraint, that would mean pre-booking time), or developing a national (and nationalised) facility of the kind

[95] Hackitt Review recommendation 7.2(d).

that the Building Research Establishment once represented. The latter has the benefit of independence, but it will not really be the increased capacity that is needed, as it would be competing with the private sector for a limited pool of people with the necessary expertise. It would also need either to replicate every test relevant to the AVCP process (as a compliance issue could arise in respect of any product) or to limit its coverage to testing products at the higher end of the range of risks attached to products critical to building safety. There would consequently be an issue as to whether a Government-owned resource could both cover the range of skills and products required and make efficient use of those resources, but that is beyond the scope of this review.

In the meantime, there are four things that Government can do in the shorter term to address the broader capacity problem:-

(1) It can publish clear plans about the future of the accreditation process and the regulation which governs that process for the information of Approved Bodies and potential new entrants. The surest way of increasing supply is for the market to be confident that demand is going to increase to a level that justifies the necessary investment, and thereafter be sustained at a level that both repays the investment and secures profitable income in the long term.

(2) It can ensure that any requirements for increased testing to be brought in as a consequence of secondary legislation balance the avoidance or diminution of risk against the reality of the capacity of the system to deliver it, without disproportionate cost or delay being introduced into the process.

(3) It can avoid making the situation worse. The immediate problem caused by the requirement for UKCA marking to be mandatory with effect from January 2022 has been relieved by moving that date – but without taking full account of what needs to happen so that the capacity problem does not just move with the date. The date therefore needs to be set against a full understanding of any existing capacity constraints and a realistic plan for matching projected demand to future capacity.

(4) It can continue to allow Approved Bodies to make use of subcontracting, including subcontracting to overseas testing facilities, without geographical limitation, subject to the conditions set down in the CPR (see box below). This will avoid aggravating the problem but on the face of it the contribution made by subcontracting to solving capacity problems is limited because of the requirement for any Approved Body seeking to subcontract work having to have the accreditation (and therefore the ability) to carry out the work itself under other circumstances.

Subcontracting

The CPR permits an Approved Body to subcontract tasks for which it is contracted to provide AVCP services, or delegate it to a subsidiary, subject to:-

- the task to be subcontracted being one for which the Approved Body is itself accredited[96] [97];

[96] Article 43.6 of the CPR reads: "*An approved 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 approved, whether those tasks are carried out by the approved body itself or on its behalf and under its responsibility…*".

[97] Post-dated note: as a practical matter, UKAS applies this as meaning that, at AVCP system levels 2+, 1 and 1+, an Approved Body wishing to subcontract the testing element of the certification process to an external provider may do so, without reference back to the manufacturer. Neither the Approved Body nor the external provider requires accreditation for the testing, and there is no requirement for the external provider to be based in the UK. The Approved Body does, however, need to satisfy itself that the external provider is competent to carry out the testing. In addition, the Approved Body must take responsibility for the subcontracted work, and must have the competence to specify the

- it being clear that responsibility for anything subcontracted remains with the contracted Approved Body;
- the Approved Body ensuring that the subcontractor meets all requirements of CPR Article 43, which principally relate to confidentiality, impartiality and the avoidance of conflicts of interest; and to having the necessary equipment and skilled personnel and professional indemnity insurance;
- the consent of the manufacturer;
- UKAS being notified of the intention to subcontract, and to whom and confirming that the subcontractor meets the requirements of Article 43; and
- the work being covered by a formal subcontracting agreement (and a GNB-CPR guidance note makes suggestions as to the coverage of a subcontracting agreement[98]).

There are no limits to how much of the overall assessment process can be subcontracted, save that an Approved Body cannot subcontract the certification decision required in systems 1+, 1 and 2+ and an Approved Body responsible for testing cannot subcontract the sampling.

In addition, an Approved Body may make use of testing facilities outside their own laboratories, where requested by the manufacturer and justified on practical grounds (technical, economic or logistical). That may be in a laboratory operated by the manufacturer at its manufacturing facility or elsewhere.

(5) It can allow all or part of the process to be conducted overseas by a testing house accredited by an accreditation body with which there is a mutual recognition agreement ("MRA"), either government to government or between national accreditation bodies.

Recognising accreditation by other accreditation bodies would be consistent with UKAS's principle of "*accredited once, accepted everywhere*"; and paragraph 8.4 of the Memorandum of Understanding between UKAS and the Government also states that "*the Secretary of State will encourage recognition of certificates issued by those accreditation bodies with whom UKAS has agreed mutual recognition arrangements when appropriate*" - although it must be acknowledged that UKAS accreditation is no longer recognised for the purposes of CE marking (with the exception of Northern Ireland), so there would be no reciprocity with EU countries.

In addition, where products originating overseas are allowed to be placed on the GB market as part of an MRA, this may relieve what would otherwise be an additional capacity problem, but there needs to be consistency of the required testing and assessment systems operating in the UK and in the country with which an MRA is struck, to maintain a "level playing field" whilst ensuring the safety of buildings and their users.

Whatever measures are to be considered, a more detailed analysis of the market than currently exists is needed, to include a realistic appraisal of what capacity can be in place, product by product, test by test, in time for products to be UKCA marked by the January 2023 deadline. All the indications are, however, that the capacity issue - for some products and tests in particular - is unlikely to be resolved in time to cope with the end of the recognition of CE marking by that date.

Finally, although in its infancy, there are signs of potential in the use of Artificial Intelligence ("AI") in lieu of physical testing - for example by the National Physical Laboratory testing face masks for

tests and interpret the results as part of the certification process. UKAS will review this competence as part of their ongoing assessment process.
In respect of AVCP system level 3, in January 2022 UKAS issued a bulletin based on a DLUHC policy decision to the effect that an Approved Laboratory contracted to undertake testing can subcontract testing to an external provider, including a provider that is not accredited and/or not based in the UK, but in this case the Approved Laboratory itself must hold UKAS accreditation for the scope of testing that is subcontracted.

[98] GNB-CPR Approved Guidance note NB-CPR/17-744r2: subcontracting of NB work.

use in the pandemic[99]. For the purpose of this review, the interest is in how the use of AI might change the landscape of conformity assessment, and how this might help to address capacity issues in the medium to longer term.

As another example, the development of CFD (Computational Fluid Dynamics) modelling has dramatically reduced the amount of physical testing in wind tunnels, and although the behaviour of fire may be subject to more variables and therefore less predictable than wind or smoke, there will always be a limit on the ability to feed those variables through physical tests, and computer models put together with the best possible data and by the greatest possible expertise must surely compare well with desktop studies put together with less information.

Government and industry should jointly explore this potential in the larger context of the digitalisation of the industry more generally, looking in the first instance at:-

- progress being made in other industries and any transferable experience;
- the data needs for increased use of AI, how that data might be gathered and validated, and by whom;
- how the use of AI might fit into the conformity assessment process; and
- how the AI process itself might be assured.

Recommendation 2, re capacity: to address, as a matter of urgency, the inadequacy of testing capacity to meet the projected growth in demand as a consequence of the end of recognition of CE marking and changes to the Construction Products Regulations

2.1 Government to develop a clearer understanding of the existing capacity of the Conformity Assessment Bodies to meet current and predicted demand for conformity assessment and testing services (regulatory and voluntary) for all product families.

2.2 Government to take action to relieve current pressures on the testing market as the industry transitions to UKCA marking[100]. This could include (either for all products or for those with an acknowledged capacity problem):-

(1) extending the ability to make a straight conversion of CE marking to UKCA marking (or simply continue to accept CE marking) beyond 31 December 2022;

(2) allowing use of overseas laboratories if (for example) the laboratory is accredited by UKAS or an Accreditation Body covered by the ILAC Arrangement.

2.3 Government and industry to investigate the potential for alternative technologies (AI, digital modelling etc), on their own or in conjunction with physical testing, to reduce or eliminate the requirement for physical testing, without reducing the reliability of the data provided.

[99] *Standards for the Fourth Industrial Revolution* - HMG-NQI Action Plan to Unlock the value of standards for innovation, DBT (then BEIS), BSI, NPL, UKAS, July 2021.

[100] Post-dated footnote: on 20 June 2022, DBT, OPSS and DLUHC announced a further series of easements relating to the application of the new UK Conformity Assessed (UKCA) mark that was to replace the EU CE marking with effect from 1 January 2023. These measures included permitting the UKCA mark to be applied to any products assessable under AVCP system level 3 that had been tested by EU Conformity Assessment Bodies before 1 January 2023, without the need for re-testing. See https://www.gov.uk/government/news/government-to-make-it-simpler-for-businesses-to-apply-new-product-safety-markings.

Subsequently, in December 2022, Government announced a revised date of 30 June 2025 for the intended end of recognition of the CE mark in Great Britain. The announcement was accompanied by updated guidance about placing construction products on the GB market, and information about further changes to requirements from 30 June 2025. Until then, products can continue to be supplied to the GB market without any need for reassessment or re-marking if EU requirements are met (including CE marking). Thereafter, and subject to the introduction of legislation to amend the current rules, businesses are advised to prepare for this provision to end. See https://www.gov.uk/guidance/construction-products-regulation-in-great-britain#full-publication-update-history, updated 22 December 2022.

The same announcement stated that the intention to allow manufacturers of construction products under AVCP system 3 to obtain a UKCA mark without having to retest (as the June 2022 announcement, and subject to conditions as above) will no longer be introduced but added that the OPSS will not take enforcement action where the UKCA mark has been used on products tested by a Notified Body for the purpose of CE marking prior to 31 December 2022.

25.5 Accountability

Under the provisions of the Building Safety Act, clarity of responsibility (or accountability, or "duty") is to be achieved by the creation of three designated dutyholders: one responsible for design (the Principal Designer), one for construction (the Principal Contractor) and one for the building in occupation (the Accountable Person). For work captured by the requirements of the new legislation, each of these three dutyholders will therefore depend upon the quality and completeness of what is passed to them by the previous dutyholder in order to produce a building that is safe to occupy.

The question for each dutyholder is what reliance can be placed upon what is passed to them; and in that respect there is a potential break in the chain of duty between the manufacturers of products (and those who assess them) and the needs of designers, constructors and occupiers – each of whom will be seeking answers to a number of specific questions

Dutyholders need to know that the product is intrinsically safe; that it will deliver the performance required of it, specifically in respect of any safety function it may have; that claims made for that performance are honest, expressed in clear language and verifiable; and that where dependence on those claims is critical to safety, then they have been independently verified. The "moment of truth" at which those questions should be answered would be the Declaration of Performance made by the manufacturer - but that brings us back to the gap in the system, and to the fact that only about one-third of construction products are believed to be covered by the CPR[101].

In June 2017 (and still), two of the products not covered by the CPR were internal fire doors and ACM panels.

We will return to the potentially expanded use of Declarations of Performance, but first, a measure in the Building Safety Act for bringing all construction products of every kind into the regulatory net is the introduction of a general safety requirement.

25.6 A general safety requirement

(1) Introduction

Clause 2 of Schedule 11 of the Building Safety Act provides that Construction Products Regulations may impose requirements based on products being "safe or "not safe" – with "safe" being defined as a product which "*under normal or reasonably foreseeable conditions of use … does not present any risk to the health or safety of persons, or if it does, the risk is as low as it can be compatibly with using the product"*. This requirement was enshrined verbatim in the indicative draft secondary legislation published on 14 October 2021, which also set out factors to be taken into account in determining whether a product is "safe".

Whilst this clearly seeks to follow the principle of trying to be "outcome focused" or "goal-based", it does raise questions in matters of interpretation, compliance, liability and enforcement – in short, questions relating to its application rather than its principle.

The attraction of the requirement is clear. If, notwithstanding a construction product's compliance with all published standards, someone is harmed by or because of that product, then there is a potential legal safety net or "catch-all": that the harm was caused by a breach of the general duty.

[101] The numbers typically quoted are that there are 30,000 products of which about 10,000 are covered by a designated standard, and therefore by the CPR. We have, however, been unable to trace any source for those numbers, nor even for what they represent, as the number of products of different purpose, manufacture, specification and dimension must run into the millions. The one-third estimate is therefore taken on trust - but the principle that the number of products covered by the CPR is heavily outnumbered by the number that aren't seems valid.

It therefore addresses both the problem of products not being regulated at all, by virtue of the absence of a designated standard, and of standards needing to be increasingly prescriptive.

There can be no argument against the principle of prioritising safety, but there does need to be confidence that the requirement will work in practice, and that it is not too generalised to identify the circumstances in which it will work, nor that it may have unintended consequences that undermine its benefits. These concerns are inextricably linked to the question of what specific and reasonably foreseeable risk the requirement is intended to deal with.

The risks arising from the use of a product can be divided into two broad categories: intrinsic (or inherent) risk - that it might cause harm in handling, use or operation; or the risk of a functional failure - failing, for example, to prevent the spread of fire. Complications result from extending a regulatory principle to cover both eventualities, but drawing a boundary between the two is not straightforward. Unlike consumer products generally, most construction products are designed to work as part of an assembly or system - what the EU, in excluding them from the "modules" approach adopted for product regulations generally, called "intermediate products". They are eventually destined to be part of a building, and the real objective must be to make safe buildings.

We are of the view that "safety-critical construction" (that is, looking beyond the product) is a concept with real mileage in its potential, and we will return to it; but looking at the product alone, the open-ended nature of the requirement poses a number of challenges.

(2) Products as components

The first challenge is that product characteristics that are not currently regulated (sometimes with reason, sometimes without good reason) will become regulated - but generally with there being no standard for them, given that the purpose of the requirement is to regulate products for which there is currently no designated standard.

To take an example, there is currently no general requirement for testing for toxicity in the event of fire. There is a widely held view that there should be such a test - and indeed that some manufacturers add potentially toxic chemicals to products to "improve" their performance in the resistance of or reaction to fire. So this posits a presumption that potential toxicity makes a product unsafe, and that it should be covered by the general safety requirement. There is, however, no standard for what level of toxicity (if any) represents a risk, or a risk that is "*as low as it can be compatibly with using the product*" – an expression which itself rather begs the question as to how low that is. The same reservation will apply in respect of many other risks against which a general safety requirement may be thought to offer protection.

The second complication is that the essential characteristics of a product are assessed separately, and those to be assessed are determined by the intended use of the product. Whether a product is "safe" or not therefore depends upon its subsequent use; and although manufacturers can (and should) look forward to the foreseeable uses of their product, and make limitations on use clear in the Declaration of Performance (or where there is no requirement for a Declaration of Performance, in information provided with the product), the products themselves cannot be characterised as safe or unsafe until they are put to use.

This lack of the definitive identification of a product that might not comply with a general safety requirement in advance of its use, compounded by the lack of prescriptive requirements, creates a problem of enforcement. Again, taking toxicity as an example, there are very precise standards about that in the Furniture and Furnishings (Fire) (Safety) Regulations, and these provide an objective measure against which products can both be tested and recognised as non-compliant. Without such standards, and without knowing the intended use of the product, there must be a question about the ability of Trading Standards to pick up a breach of the general safety requirement at any point prior to its incorporation into the works – and therefore a question about the effectiveness of the measure.

General Product Safety Regulation ("GPSR")

Of 116 entries in the OPSS's Product Safety Database in the first 6 months of 2021, it is noticeable that the great majority relate to products for which there are highly prescriptive standards - principally toys and electrical goods, aiding both recognition of non-compliance and demonstrating as much to the manufacturer in calling for the product's withdrawal or recall.

In that period there have been just 7 entries relating to general safety (that is, applying the GPSR), two of which specifically cite non-compliance with prescriptive standards.

The interception of unsafe products that relies upon the GPSR therefore looks to be limited, by comparison with those which can be assessed against prescriptive standards.

(3) Products in situ

Given the above, a "general safety" issue in construction is most likely to be identified only in completed works - and quite possibly only when buildings are in use. Where that happens, it is likely to trigger the argument as to who is responsible that characterises so many construction disputes. Any product manufacturer who is alleged to have manufactured a product that breaches the general duty of safety (whether that is a statutory or contractual matter) is likely to respond that the product was inappropriately selected in the first place; and/or wrongly incorporated into the final design; and/or wrongly stored, handled or installed, or installed into a background that was inadequately prepared; and/or wrongly maintained or operated. As a result, product withdrawal or recall is also likely to have to await evidential justification.

To further complicate matters, there also seems to be an inconsistency/imbalance in the imposition of duties, and the possible imposition of sanctions. The objective must be to produce a safe building or structure; and the constant comment in the review panel's consultations, and in the limited research that exists, is that, in the vast majority of cases, issues arising on site do indeed relate to inappropriate product selection, thoughtless substitution of an inappropriate product for an appropriate one, poor design or poor workmanship. But it seems there is no equivalent general duty to produce a safe building.

Instead, the obligation, in summary, is that any person carrying out any design or building work must take all reasonable steps to ensure "*compliance with all relevant requirements*" (specifically the Building Regulations); clients must make suitable arrangements to ensure the same result; and designers must provide sufficient information about the design, construction and maintenance of the building to assist the client.

As far as products (or "materials") are concerned, and as set out above, the obligation of Regulation 7 of the Building Regulations is that "*Building work shall be carried out with adequate and proper materials which are appropriate for the circumstances in which they are used, are adequately mixed or prepared, and are applied, used or fixed so as adequately to perform the functions for which they are designed; and in a workmanlike manner".*

This apparent lack of symmetry between the duties of a designer and product manufacturer produces an anomaly which is specifically relevant to testing (and to the circumstances of the fire at Grenfell Tower). This is that a product manufacturer may develop, test and declare the performance of a product and remain subject to a general duty of safety thereafter; whereas a consultant who interprets or extrapolates that data (making "*calculations prepared for the purpose of a design*" - and possibly getting them wrong) still has, as far as the regulations are concerned (and leaving to one side any professional or contractual obligations), a duty only to comply "*with all relevant requirements*".

Furthermore, a product manufacturer who issues detailed installation instructions, which may be defined as "design", would have all the obligations of a designer, plus the general duty.

Nor do any of the “downstream” dutyholders appear to have any regulatory duty to establish whether products they are specifying, selecting or installing are “safe products”; and again, if the problem of non-performance of products is usually or frequently the result of poor installation, then the problem is not solved unless the regulation of products and their installation moves in step.

There also seems to be an anomaly in the relevant roles of the two regulators. The Building Safety Regulator has something close to a duty of safety (“*a duty to exercise its building functions with a view to securing the safety of people in or about buildings in relation to risks arising from buildings*”), although accountable persons under the Building Safety Act seem not to have a general safety duty, but rather a duty to comply with the Building Regulations and new requirements designed to make buildings safe. The National Regulator for Construction Products, on the other hand, has no such duty, but those regulated do. Indeed, on the basis of current drafts, the NRCP and enforcement agencies seem to have a function (to enforce the Construction Products Regulations) but only very limited general objectives.

There is consequently a disjunct between the Building Regulations (which might be expected to be the governing document) and the CPR - both as to duties and enforcement measures, with regulations which were originally drafted to create a level playing field for trade now being turned to a quite different purpose.

(4) Summary and recommendations

Because there is no general safety duty on constructors or designers, but there is one on product manufacturers, then the manufacturers are likely to be implicated in any allegation of building failure because they may be “the last person standing”. This may feel like a just response to some of the allegations made in the Grenfell Tower Inquiry, but there are reasons to pause and reflect.

The first is that if the risks associated with some products are perceived as open-ended, and the rewards are modest, then manufacturers will simply withdraw from that market - or possibly be driven from the market by an inability to obtain insurance cover; or alternatively specify that the product should not be used in any building meeting the definition of “higher-risk”. There is already some evidence of this, and while it might be a perfectly understandable business decision, there is no public benefit in the resulting limitation of what is available on the market. Buildings still need insulation, for example - whether by way of new or remedial work.

Secondly, because the duty is so broadly drawn (and the ability to deal with future unknowns is presumably one of its primary purposes), it is difficult for manufacturers to know how they can demonstrate compliance and protect themselves against a generalised allegation of a breach of duty; and business does need some idea of the rules of engagement. For example, how far does the test of reasonable foreseeability extend in manufacturers contemplating not just the uses to which products might be put, but also the products with which they might be combined in design proposals and how they might be combined?

The final issue relates to cost. Defensive measures against an allegation of a breach of duty will not be free (whether in the form of insurance, legal or other costs), and eventually all additional cost will either render ventures (and particularly innovative ventures) unviable or lead to an increase in the price of construction which can only be met by the industry’s clients. That in turn only represents value if it produces a real benefit; and the question is not so much about proportionality, but rather about the effectiveness of the proposed measure.

This is not to say that there isn’t a problem. The question is what would most protect all those downstream of the sale of a product: a possible sanction for a breach of a general safety

requirement for all products, or a significant sanction against a demonstrable failure to tell the truth?

The two ideas are not irreconcilable, and may complement each other, but there is a risk that the reliance on a general safety requirement might be regarded as "job done" and create a distraction from deeper attention being paid to greater hazards. So for a general duty to be an effective and valuable part of the process, it needs to be framed in terms that manage that risk. We have suggested some ways of achieving this in our recommendation below.

There is one other practical issue relating to a general safety requirement. As for consumer products, manufacturers will typically include in product literature a massive amount of detail on possible risk, designed to protect them against a subsequent claim for a failure to warn. However, this sometimes draws proper attention away from the particular risks attached to the use of the product. In the new regime established in the Building Safety Act, the tendency will be for successive dutyholders to carry this detail, via the golden thread, through the gateways and building control process for higher-risk buildings, and into the safety case; and the risk is that extraneous detail cannot be managed out without those editing the golden thread exposing themselves and/or building users to risk.

Guidance notes on the interpretation, operation and enforcement of the general safety requirement, similar to the fact sheets published by the Building Safety Regulator[102], are not yet available, and it is possible that they will demonstrate how these reservations can be dispelled. Ultimately what is needed is a definition of the general safety requirement that is specific enough for manufacturers to be clear as to their obligations, and for Trading Standards Officers to implement an effective surveillance and enforcement regime.

This should include guidance as to the point at which manufacturers giving instructions on the safe use of their products may become "designers" for the purposes of the Building Safety Act, and also how that reconciles with any duties that may be owed under the CDM Regulations (see section 9.2 above).

In the pre-legislative scrutiny report, it was suggested that Government might mandate the provision of a certificate confirming how a product performs when combined with other products. The Government's response to this was that it would be neither appropriate nor practical for this duty to be placed on manufacturers (see section 29.3 below). Given this (and although, as on all matters of legal interpretation, it will ultimately be for a Court to rule), the fact sheet should also set out the expectation of the requirement of the draft secondary legislation that "*the effect of the product on other products, where it is reasonably foreseeable that it will be used with other products"* should be taken into account in determining whether a product is safe, if that requirement is to stand[103].

If clarity on all the above can be achieved, and conditional upon that, then apart from a direct contribution to building safety by bringing all products into the regulatory net, the requirement could serve two other purposes.

The first is that, if reliance can be placed on the general safety requirement for all products other than those that might be listed as safety-critical, then many products could be lifted out of the mandatory conformity assessment process set down in the CPR, at least as far as safety is concerned. This is considered further in section 30.4 below.

Secondly, an ancillary benefit could be that, as long as manufacturers have a defence of reasonable skill and care that acknowledges the implications of applying the GPSR requirement

[102] New and refurbished high-rise buildings, and Building Safety Regulator approach to enforcement: factsheets, published 14 October 2021.
[103] Draft Statutory Instrument 2022, Building And Buildings Construction Market Standards, The Construction Products Regulations 2022, clause 6(2).

to intermediate products, then that could incentivise a constructive dialogue about what would represent reasonable skill and care. It could, for example, encourage greater take-up of voluntary third-party certification schemes (see section 32 below); and it could also lead to the development of standards and guidance to support the general safety requirement - whether they relate to the preparation of risk assessments, the need for testing, horizontal standards relating to specific risks (such as toxicity), or more specific standards relating to individual products or tests.

Finally, the impact of any new regulatory requirements relating to construction products, including the general safety requirement, on the availability and cost of product liability insurance needs to be studied in advance of implementation. The importance of this is two-fold: whilst the intention may be for manufacturers to minimise their risk by doing what is required in the regulations, rather than insuring themselves against it, without such cover redress for anyone harmed is backed only by the balance sheet of the manufacturer; and prudent manufacturers will think long and hard about the balance of risk and reward for products where the risks may be high, and the returns low.

Recommendation 3, re general safety requirement: to bring products currently outwith the Construction Products Regulations into the regulatory regime in an effective and proportionate way

3.1 Government to publish a fact sheet on the interpretation, operation and enforcement of the general safety requirement to demonstrate how the complications noted in this review, and any others arising from consultation, can be addressed to ensure that the requirement will be both effective and proportionate.

3.2 Government to frame the requirement so that

(1) manufacturers have "reasonable skill and care" defences against an allegation of breach, at least equivalent to those available under the General Product Safety Regulations;

(2) enforcement agencies have a reasonable prospect of identifying a breach, ideally in prospect, and then of successful prosecution, so the deterrent is an effective one;

(3) anyone with a right to bring a civil claim has a reasonable prospect of identifying a breach, and the bringing a successful claim;

(4) the allocation of risk is consistently treated through the life cycle of the product, with the duties and potential sanctions imposed on those who manufacture a product bearing a logical relationship to the duties and sanctions imposed on those who design, construct and occupy a building;

(5) the manufacturer's liabilities are insurable, absent a criminal offence.

3.3 Government and industry to explore the practicality of developing standards and guidance which support the general safety requirement.

3.4 Government to review the specific effectiveness of the general safety requirement after 5 years, as part of the review of the regulatory environment generally, including confirmation that the cost of compliance is demonstrably proportionate to the benefit.

25.7 A general truthfulness requirement

As (if not more) important to specifiers than the defensive information of a general safety statement is the more positive information about the performance of a product, its fitness for particular purposes and how to use it - all of that having to be trusted as being truthful.

For products covered by the CPR, the moment for that truthfulness is at the Declaration of Performance prior to a product being placed on the market. The importance of this moment is considered further in section 30.6 below, where thought is also given as to whether all products might be required to make such a declaration.

Were there a statutory duty to be truthful, it would encompass a requirement to:-

- declare performance clearly, comprehensively and truthfully;
- as an extension of that, not make false or misleading claims about the product (for example in advertising, marketing material or proposals made to purchasers) – in short, that any claims made for a product at any time must be clear and verifiable;
- provide the information necessary to secure that performance (in design, installation, maintenance and operation), and to advise of any reasonably foreseeable circumstances in which use of the product could lead to it being unsafe;
- put in place measures that ensure that the Declaration of Performance and the information related to it remains valid across all production;
- report to the NRCP if any product is known or shown at any time not to conform to its declared performance, or to be unsafe; and
- correct or withdraw/recall any such products.

There can be no legitimate objection to these principles, and they should generally apply to all products whether or not they were previously covered by the CPR. Similarly, whether or not a Declaration of Performance might be a mandatory requirement for all products, the industry should consider the extent to which product information that follows formats established for statutory purposes could usefully be adopted more widely.

Whether by reference to safety or truthfulness, though, both ways of bringing all products within the coverage of the CPR suggest an equivalence of the risks that they represent, and also treats products in isolation, rather than as part of a system.

On the face of it, one proposal to address this is the provision in the Building Safety Act for the Secretary of State to declare certain products to be "safety-critical".

25.8 "Safety-critical"

Subject to its first use being approved by Parliament, the Building Safety Act empowers the Secretary of State, after consultation, to define and list as a "safety-critical product" any construction product in respect of which "*failure would risk causing death or serious injury to any person*"[104]. The power is ostensibly limited to products for which there is no designated standard, but given that the Secretary of State also has the power to de-designate standards, that proviso could presumably be procedural (and/or related to the Northern Ireland protocol and WTO rules - see below), rather than substantive.

However, DLUHC also advise that it is not in any event the intention to de-designate products so that they can be added to the safety critical list, but that the list will be used to bring into the regulatory framework additional products that are not currently covered by the existing framework. It follows that "safety critical products" will not comprise a single category of products meeting defined (and, by implication, more strenuous) criteria relating to building safety. We think that is regrettable and that the industry would react better to a single category of what might be listed as safety-critical, with everything meeting defined criteria being listed, and all consequently attracting a higher level of attention.

In fact, the powers given to the Secretary of State in respect of safety-critical products (to set standards and the appropriate AVCP level) already exist under the CPR as retained in UK law, but DLUHC advise that the differentiation from products covered by a designated (non-safety-critical) standard is required for two reasons:

(1) to manage obligations under the Northern Ireland protocol, given that the list of designated standards mirrors the products still covered by harmonised standards in Northern Ireland;

[104] Schedule 11, clauses 10-13; and draft Statutory Instruments 2022, Building and Buildings Construction Market Standards, The Construction Products Regulations 2022, clauses 16-26.

(2) to meet the requirements of WTO rules, which prevent the creation of barriers to trade, but allow new regulations on products where there is the justification of a risk to health and safety.

Before a product can be listed as safety-critical, we understand that the proposed approach is that the Secretary of State will request BSI to draw up a “safety-critical standard” for it, and may impose requirements relating to those standards. These may include the intended uses of product, the properties of the product which are considered safety-critical, the required performance in respect of each property, and the AVCP system required.[105]. It should follow that all products that are adjudged to be safety-critical will attract a higher level of scrutiny in the assessment process and higher levels of surveillance throughout the life cycle from product development to installation and use, and that the detailed requirements for that will be set down in the standard.

Inevitably, there is going to be considerable lapse of time between a product being identified as one which would, in the event of failure, "*risk causing death or serious injury to any person*” and the development of a standard to cover it. In that period, regulation of the risk will depend upon the operation and effectiveness of the general safety requirement

There are also complications in defining an individual product as “safety-critical” that will need to be taken into account in setting new or revised standards and the conformity assessment process for it. These generally follow the questions posed about the general safety requirement. For example, because a product and its essential characteristics are assessed against its intended use, what might be fine in one situation may present a risk to safety in another; and this needs to be acknowledged in its treatment if it is not to be subject to the highest (and therefore most expensive) level of the testing/verification regime, irrespective of its intended use.

Additionally, there needs to be clarity as to the criteria for moving an individual product from coverage by the general safety requirement only (that it should not present any risk to the health or safety of persons, or a risk that is as low as it can be) to the safety-critical category (that it should not present a risk of causing death or serious injury to any person).

As for the general safety requirement, therefore, a fact sheet should set out the interpretation, operation and enforcement of provisions relating to safety-critical products, with the analysis necessary to do that demonstrating whether the concept of safety-critical products is a helpful one. Furthermore, collaboration between Government and industry to reach a common understanding on this issue will contribute to the creation of a constructive relationship between regulators and the regulated.

Instead or as well, though, the difficulty of definition may point towards a solution: to focus not on “safety-critical products” in the abstract, but rather on **products critical to safe construction**.

This approach is consistent with Recommendation 1.3 of the Hackitt Review which calls for a regulatory framework that treats each building as a single entity and which defines the requirement to understand the interactions of all its systems in both normal operation and outside normal conditions. It puts the focus on the real objective of safe buildings and provides a means of identifying priorities: priorities that are essential given the constraints on capacity - whether that relates to developing or revising standards; to assembling data about products that carry a real risk of harm; or about research and the assembly of a better body of knowledge about fire in buildings.

The approach would not be about construction products “off the shelf” but rather in the context of “safety-critical construction”; and whilst safety-critical products might be a shifting concept,

[105] Draft Statutory Instrument. Building And Buildings Construction Market Standards, The Construction Products Regulations 2022, Article 16.

identifying elements of construction that are critical to safety, particularly in the context of fire, should not be such a difficult exercise. It is implicit in Approved Document B, and there is commonality with the list of products which Working Group 12 of the industry Competence Steering Group is considering.

Safety-critical construction - a starter list re fire safety: products noted or implied in Approved Document B

- **Compartmentation**
  - Fire resisting construction (eg in compartment walls), including glazing
  - Class A1 material for shaft construction
  - Fire doors and doorsets, door closers
  - Cavity barriers
  - Fire resisting ceilings
  - Fire-stopping

- **Emergency systems**
  - Fire, smoke and heat detection and alarm systems
  - Emergency lighting
  - Standby power
  - Sprinkler systems
  - Rigid steel ductwork
  - Mechanical smoke ventilation
  - Facility to shut down mechanical ventilation on detection of smoke
  - Thermostat (for ducted warm air heating systems)
  - Openable vents
  - Cables to PH30 classification

- **Means of escape**
  - Lift lobbies, escape stairs, handrails and balustrades
  - Emergency escape windows
  - Guarding to balconies or flat roofs
  - Emergency exit signs

The list is not exhaustive, and we acknowledge that there are other aspects to the definition of building safety than the risk of fire (although, on structural safety, a similar approach to Approved Document A may point the way).

There are also different ways in which a product might cause or contribute to harm, including in this context:-
(1) the product may have a function that is critical to life and safety, but may fail to deliver its safety function - fire/heat/smoke alarms and detectors, sprinkler systems; emergency lighting, smoke ventilation, for example;
(2) the product may form part of an element of construction that is critical to life and safety, but again fail to perform as required - fire doors, fire stopping and all elements of compartmentation;
(3) the product may react in a harmful way under stress - most obviously fire, for example in terms of spread of flame, smoke generation and toxicity.

We believe, however, that government and industry working together could, by reference to their likelihood and impact, reach a fair understanding of the risks which demand particular regulatory attention – and hence the products that demand special attention on the basis of the contribution they might make to that risk and their vulnerability to failure.

The complications of products which might be safe in most circumstances but not in safety-critical construction persist, but it is a risk that is already present and one that has to be judged by the likelihood of a product failing, and the gravity of the consequences of it doing so; and then

addressed in the content of the Declaration of Performance, clear product information and equally clear labelling.

Once there is a list of safety-critical product types, then there is the potential for an inventory, or a directory of specific products by named manufacturers. There was a majority in favour of the inventory idea in the consultation exercise for the proposed reforms[106], and it might usefully be re-examined. There is, however, no reason why such a list must be regulatory, and it may well be developed as a commercial or sponsored product. In Switzerland, for example, a product directory setting out the application of building products for fire safety purposes is published (with a clear exclusion of liability) by an insurance company[107].

Recommendation 4, re "safety-critical" products: to increase the focus on products essential to (and in the context of) safety-critical construction

4.1 Government to publish a fact sheet on the interpretation, operation and enforcement of provisions relating to safety-critical products to demonstrate how the complications noted in this review, and any others arising from consultation, can be addressed to ensure that the provisions will be both effective and proportionate.

4.2 Government to list products (or products marketed as a system) as "safety-critical" in the context of safety-critical construction, the safety function of the product, its susceptibility to fault or failure, and the consequences of failure – with all products or systems meeting the criteria for listing being listed as safety-critical, whether or not covered by a designated standard.

4.3 Government to mandate that safety-critical products or systems are subjected to the most stringent level of conformity assessment that is practical for the particular product or system.

4.4 Government and industry to examine the practicality and implications of producing an inventory or directory of "safety-critical" products and systems.

[106] https://www.gov.uk/government/consultations/building-a-safer-future-proposals-for-reform-of-the-building-safety-regulatory-system.

[107] Vereinigung Kantonaler Feuerversicherungen (VKF) – see https://services.vkg.ch/rest/public/georg/bs/publikation/documents/BSPUB-1394520214-2627.pdf/content.

Part V: Re-mapping the Landscape - Gaps and Weaknesses in the Current System and Options for Reform

26. Introduction to Part V

This section of our report revisits the landscape of product regulation (as Part II) to address gaps or weaknesses in the separate parts of the process by which products move through the supply chain from production and conformity assessment, on to marketing, and eventually to installation and use.

The potential for performance being compromised, or underperformance being detected, exists at every point along the way, and we have therefore sought to consider the possibilities of what can go wrong at each step of the process, and ways (and sometimes alternative ways) of seeking to prevent mis-steps.

Gaps and weaknesses in the testing regime fall into two categories:-

- systemic - problems implicit in the structures and processes of the regime, but in respect of which there is no specific issue of conduct or performance on the part of the manufacturer or Approved Body; and
- performance - where the requirements of the regulations are clear, but there is either allegation or evidence that they are not always followed.

In respect of the latter, there are of course matters of degree: from a one-off administrative slip to a serious (and potentially habitual) breach which could undermine the whole process and therefore the confidence that can be placed in claims made for products on the basis of testing or assessment.

By the same token, there can be a range of motives for a failure to follow due process, from momentary inattention to wilful misconduct. For the purposes of this review, it is sufficient that, if a systemic gap or weakness in the regime or a failure to follow due process can undermine confidence in the testing regime, then it should be addressed; and, if the problem is significant and the measures necessary to eliminate it will be both proportionate and effective, then it should be fixed.

27. The legal framework

The principal change in the legal framework relevant to this review is the Building Safety Act, which sets the context for a new regime for the regulation of building safety, and which enables the secondary legislation that introduces new requirements relating to the regulation of construction products.

Although less relevant, the other legal development is that CPR305/11, as it continues to operate in the EU, has been under review in the EU since an announcement made in 2016. This was followed by a succession of consultation exercises, impact assessments and related studies, the last of which was published in July 2021[108]. Many of the propositions put out for consultation relate to the Regulation's effectiveness in creating a single market, and "*reinforcing the credibility of the harmonised system*", but the other two objectives are legal clarity and simplification and themes that have been the subject of consultation include:-

- increasing the understanding of CPR305/11 in general, particularly amongst micro businesses and SMEs;

[108] *Supporting study for the impact assessment of the CPR Review Final report*, European Commission Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, July 2021.

- ensuring coherence and removing inconsistency of treatment of the same products under different regulations;
- improving and streamlining the production of standards;
- introducing standards for products' environmental performance;
- improving the performance of notified (or approved) bodies; and
- strengthening market surveillance.

In parallel, plans are in progress to further develop "the Acquis" (the body of harmonised standards, the European Assessment Documents and related legislation). This is said to be necessary irrespective of any revision of CPR305/11, because the process for delivering standards "*lacks coherence* [and] *is underperforming*"[109], with many existing standards not covering most of the basic work requirements, several product groups not being covered at all, and those that are covered being incomplete.

Criteria for prioritisation of product groups for development include safety issues, based on the seriousness of the health risks during the handling, installation or use of a product, or if it fails in its primary functions in the completed building; and environmental issues, including energy and sustainability.[110]

28. Accreditation – UKAS

28.1 Introduction

A critical reappraisal of the existing regulatory landscape as it relates to construction products begins with the National Quality Infrastructure and UKAS, considering two aspects in particular:-

- how effective it is in the performance of its existing functions; and
- whether its existing functions are drawn in a way that is as effective as it might be.

A fully detailed analysis of both aspects goes beyond the immediate scope of our terms of reference, but they are clearly relevant to the essential objective of having a conformity assessment system that is trusted. They are therefore considered in outline below.

28.2 Existing role

Any impression of UKAS's performance picked up in this review cannot claim to be conclusive, being based on feedback from UKAS themselves, from those it accredits and from the peer reviews conducted by European Accreditation, rather than on direct, detailed investigation.

[109] Internal Market, Industry, Entrepreneurship and SMEs: Construction Products Regulation Acquis - https://ec.europa.eu/growth/sectors/construction/construction-products-regulation-cpr/acquis_en; and European Commission Proposal for a Regulation of the European Parliament and of the Council laying down harmonised conditions for the marketing of construction products, amending Regulation (EU) 2019/1020 and repealing Regulation (EU) 305/2011.

[110] Post-dated footnote: proposals for amendment of the EU Construction Products Regulation were adopted on 30 March 2022 – see https://ec.europa.eu/docsroom/documents/49315, Proposal for a Regulation laying down harmonised conditions for the marketing of construction products, amending Regulation (EU) 2019/1020 and repealing Regulation (EU) 305/2011. This revision has as its stated aims a well-functioning single market for construction products, with reduced national barriers to trade; greater clarity in the regulations and their simplification; addressing a standardisation process, variously described as 'malfunctioning' or 'underperforming', which has led to an increase in the use of Technical Assessment as a route to marking; ensuring that construction products are both sustainable and safe, by setting certain product requirements, specifically in respect of environment, climate and safety, and requiring, in addition to a declaration of performance, a declaration of conformity to those requirements; paving the way for greater digitalisation and new technologies (including 3D-printed products and prefabricated dwellings); and improving enforcement and market surveillance.

As far as the peer reviews are concerned, these generally note a high level of commitment by staff; a fully documented management system giving confidence in the management of the accreditation processes; a comprehensive training policy; and an efficient IT system. Issues noted for further consideration generally look procedural (about the use of accreditation symbols, for example), except for one related to the competence of personnel (specifically a Technical Assessor not having the necessary qualifications - or not having them properly recorded); one to delay in making a decision about the accreditation of a body after assessment; and one to mis-recording the coverage of an accreditation. The evaluation also suggested training on impartiality and risk analysis for members of the Advisory Council "*to ensure their competence for performing the impartiality oversight of UKAS activities*".

So there is nothing on the face of EA's reviews that signalled the need for more than fairly routine correction.

Generally, though, the comments are "technical" - in that they evaluate UKAS in the way that UKAS evaluates those it accredits, viz whether they are following due process (principally ISO/IEC 17011 in UKAS's case); and the overall conclusion was again positive.

The general opinion of Conformity Assessment Bodies we have spoken to is that UKAS do a pretty good job within their narrow remit (with one international Approved Body expressing the view that they perform better than its experience elsewhere in Europe), but that they are constrained by the limited availability of suitably skilled resources, and that the process is slow - both in the original accreditation process, and then in accrediting additional service lines.

UKAS's response is that they are applying international standards in making their assessments, and that there are no shortcuts.

Looking at the timescales for accreditation, however, it seems unlikely that they are the result of a linear process that could not be shortened if there were adequate, skilled resources in both the CABs and UKAS. It consequently seems reasonable to deduce that resources must be a constraint on growth - given that some testing and assessment processes are highly technical, and that people with the necessary skills, either to conduct or appraise them, are in short supply.

Furthermore, many of the developments necessarily flowing from the Hackitt Review and the Building Safety Act will call for a considerable increase in accreditation services: in the desire to increase testing house capacity; to encourage more third-party certification schemes for products outside the regulatory net and for competence in specialist services and skills. UKAS is confident that it can scale up to meet this demand, given that it will not arise overnight and that there will be time to recruit, but the means by which it will do that merits some analysis by Government. If plans to strengthen the assurance of the quality of products, services and work are critical to a safer future, then, as for the Approved Bodies, it is equally critical that those plans are rooted in a realistic assessment of the capacity to expand and sustain an effective oversight regime.

More immediately, though, the list of allegations made in the Grenfell Tower Inquiry includes significant issues involving accredited bodies, so questions arise both about the bodies themselves and about oversight of them.

28.3 Government, UKAS and learning lessons

It is not UKAS's function to supervise the testing and certification process. It is however, part of the accreditation regime's function to confirm and keep under active review the fitness of Approved Bodies (or, for voluntary accreditation schemes, CABs more widely) to conduct that process, and the way that they do it.

Whilst no oversight role can be foolproof, the scale of the questions raised about the conduct of testing, assessment and certification should surely have triggered a dialogue between Government and UKAS with an eye to the future, to assess:-

- whether the standards to be followed by Approved Bodies/CABs are adequate to guard against the deficiencies alleged in the Public Inquiry, or whether additional protections are required;
- whether the conformity assessment activities required by regulation and/or included in voluntary schemes are fit for purpose and capable of achieving the required outcome;
- whether such processes as do exist were adhered to by the Approved Bodies/CABs involved;
- whether UKAS's own accreditation processes are adequate to establish Approved Bodies'/CABs' fitness for accreditation in the first place;
- similarly, whether processes for continuing assessment are adequate to confirm that their fitness is being sustained; and
- whether, and at what point, demonstrated deficiencies in the performance of Approved Bodies/CABs are grounds for intervention or action.

If there was sufficient investigation between Government and UKAS to establish whether there were immediate lessons to be learned, we have not been provided with the output. While evidence alleging the degree to which those involved in the production and testing of cladding products might have erred was not made plain until Module 2 of the Inquiry (held between November 2020 and March 2021), the large scale tests conducted by DLUHC in August 2017 indicated that something must have gone wrong with the original conformity assessment/testing process used to provide assurance.

There were communications between UKAS and the Secretary of State in DLUHC subsequent to the fire, first in September 2017 (at the very beginning of hearings in the Public Inquiry), and then in January 2021 (whilst Module 2 hearings were in progress).

The conclusion of these exchanges, taken together, was that UKAS's investigations of all the accredited test bodies identified as working with the type of cladding used at Grenfell Tower had confirmed that the accredited testing of the materials used had been carried out correctly, and no failures had been identified, but that UKAS remained vigilant. Some concerns were also expressed about the clarity of information presented by the certification bodies regarding fire ratings and the competence records of some of the people involved in the testing, but at the time of writing in January 2021 UKAS was satisfied that remedial action had been taken in response to the issues it had raised following visits to the relevant CABs in the immediate aftermath of the fire. This was, however, fairly early in the hearing of evidence in Module 2 of the Public Inquiry, and UKAS added that it was following up on issues being highlighted in the Inquiry in dialogue with the CABs involved.

Looking ahead, UKAS believed one of the biggest weaknesses of the testing system to be the practice of presenting a single test report without independent verification proving that the product to be supplied is the same as the one tested, and that it has been tested in a manner relevant to its intended use. We agree. The remedy recommended in the letters from UKAS to the Secretary of State was greater use of product certification, with a certification body both overseeing testing and auditing production, and offering "*greater scope for the certification body to ensure that the product has been tested in a manner that replicates its use in construction*". It was not explained how the latter would be achieved; and there were no other recommendations relating to the conduct or regulation of Conformity Assessment Bodies.

Looking more broadly, the general thrust of points made by UKAS at that time was in favour of increasing accreditation, or its recognition by Government, in Competent Persons Schemes and accredited certification; and more use of mandatory, rather than voluntary, certification. Reference was also made to "*many instances … where a more robust regime of third party oversight, underpinned by UKAS accreditation, would greatly strengthen the system*".

If there is no more definitive an analysis of the testing or certification of products incorporated into the refurbishment of the Grenfell Tower established between UKAS and Government, we would ask whether that might demonstrate either an oversight role that is too passive; or that the expectations of the National Accreditation Body are unrealistic, given its powers, the regulatory framework within which it operates and its capacity (in terms of its own resources, the availability of skilled assessors or experts, and access to specialist advice); or that such an inquiry is not regarded as part of UKAS's function.

We would, however, recommend that there is still value in a formal report from UKAS on what lessons might be learned, with specific reference to the activities of Conformity Assessment Bodies (including Approved Bodies), considering both regulatory and voluntary certification, being produced now. This can then be revisited following the report of the Inquiry.

If there was no conclusive follow-up to the exchanges of 2017 and 2021, we would also question whether that might be attributable to a lack of clarity as to where departmental responsibility lay for the activities of UKAS as they relate to matters of construction products. If so, the risk of that will only increase in the future given the more dispersed nature of the proposed regulatory structure, and with the relationship between DLUHC and UKAS not being made clear in the Memorandum of Understanding under which UKAS operates, and under which the sponsoring department for Government is DBT. It is therefore something which needs further consideration as part of a review of UKAS's future role.

28.4 Future role

It bears repetition that the primary duty relating to the performance of products, and the duty of truthfulness which we believe must underpin trust in them, rests unambiguously with the manufacturers.

The second duty, relating to conformity assessment and the need for impartiality, competence and diligence rests with the testing houses and certification bodies; and recommendations relating to those duties follow.

There must, however, be a question as to whether UKAS could monitor Approved Bodies in a way more likely to uncover shortcomings - for example by supplementing the annual spot checks and four-yearly re-assessments with more random inspections; and/or by choosing a few of the 2,000 or so certificates issued every year (again at random) and subjecting them to an expert review which confirms the reliability of the contents and conclusions of the certificate, rather than just whether it has followed due process.

Another potential concern that would benefit from a more forensic review is the widespread belief that furnaces for fire tests operate at considerably different temperatures from testing house to testing house. This may be a myth, but it is a perception with sufficient weight to be voiced – and one that those with a furnace that is regarded as more likely to offer a pass have no commercial interest in dispelling. This undermines confidence in the whole system.

Looking more broadly, UKAS is clear that it is not a regulator, but is effectively an agent of the DLUHC in its oversight of Approved Bodies - although operating under a Memorandum of Understanding with DBT only. How it performs that function should be reviewed, particularly in the context of a new regulatory regime, to see how its role could be both clarified and strengthened, including lessons to be learned from UKAS's involvement in different sectors and with different regulators. The Approved Bodies are equally clear that they are not regulators, and DLUHC confirms that the regulator has no role in respect of the function of the Approved Bodies. There is consequently a regulatory disconnect in the chain of responsibilities involved in the conformity assessment process.

Government and UKAS should also consider whether UKAS's oversight role and the sanctions available to it are best suited not just to provide assurance on the conformity of products, but also to work with the Approved Bodies to encourage continuous improvement of the process and its collective output. Our understanding is that although the ISO/IEC standard on accreditation allows UKAS to seek specific evidence on how an Approved Body is meetings its obligations, it does not allow it to advise Approved Bodies on what they need to do to address any areas of concern. Clearly, Approved Bodies should not be "schooled" to a pass, but if there were some level of stewardship between a pass and the more dramatic options of suspending or removing accreditation - something similar to "special measures" - there might be more preparedness to use it and work together towards a more secure outcome.

In summary, there are more strategic issues relating to the activities and performance of Approved Bodies/CABs (effectively the subject of this review) than are included in UKAS's current remit, some of which should be a matter of continuous review. Consideration should be given to a closer relationship with Government and a more strategic role for UKAS, addressing issues such as:

- whether there is consistency across accredited bodies - not just in conformity assessment, but also in conduct;
- whether accredited bodies could learn more from each other, with a valuable body of knowledge being built as a public good, without compromising their obligations as the National Accreditation Body;
- whether there might also be a right of appeal to an independent external arbiter for a manufacturer who feels aggrieved by actions or decisions of an accredited body (that is, beyond matters relating to meeting the requirements of the accreditation standards themselves, which are covered by UKAS's existing complaints procedures[111]);
- conversely, whether there should be a whistle-blowing obligation on accredited bodies where they suspect a manufacturer of manipulating the process in any way;
- whether there might be more dynamic oversight process after accreditation than a periodic, pre-planned audit;
- whether, given the scale of the task, the process of re-assessment of CABs is sufficiently informed by an understanding of risk;
- whether the basis upon which UKAS contracts with Approved Bodies, and the sanctions available to it, are best suited to a watchful but constructive relationship with the Approved Bodies;
- whether and how capacity constraints on increased demand can be met;
- whether the current structure of the Approved Bodies collectively is influencing conduct and performance in way not best suited to the public interest and the needs of their customers, noting in particular the degree of concentration in some test areas, and the signs of consolidation in the sector - which rarely has the interests of customers as its primary motivation;
- whether the objectives implicit in all of the above might be better achieved by a clearer and more transparent governance structure, with a more "hands on" role for Government and the Regulators; and
- finally, whether the potential effectiveness of UKAS is constrained by the regulatory framework within which it operates – for example in the lack of any direct regulatory involvement in the oversight of Conformity Assessment Bodies or in any aspect of third party (non-CPR) schemes.

This should be the subject of a review, either by DBT and UKAS jointly, with the close engagement of DLUHC, or by employment of a third-party independent organisation separate from the peer review process conducted by EA. This is provided for in the Memorandum of Understanding between DBT and UKAS[112].

[111] See https://www.ukas.com/customer-area/complaints-feedback-and-appeals/
[112] Memorandum of Understanding dated 1 January 2021, Appendix 2 re DBT (then BEIS) monitoring of UKAS.

One product of that review should be the production of an annual report to Government by UKAS that brings together any cross-cutting themes arising from the annual assessments of all Approved Bodies, and any action taken or contemplated in respect of non-conforming organisations. This could specifically include a report on "*the activities and competence*" of Technical Assessment Bodies, to assist the Secretary of State in meeting the requirement to evaluate the TABs against the requirements set out in the CPR (see section 11.2 above).

Agreeing the scope of this report should also include considering whether the recommendation of the Hackitt Review that Approved Bodies should be required to publish the number of tests passed and failed each year would be informative and useful.

Finally, we fully recognise that UKAS's field of operations extends far beyond construction, as do the activities of the Approved Bodies (and other Conformity Assessment Bodies) they accredit; and that it will therefore need to be decided whether propositions for change should be general or sector-specific, and what their impact might be on other sectors.

Recommendation 5 re accreditation: to strengthen the role of UKAS in the accreditation process

5.1 Government to review UKAS's oversight role with a view to strengthening it by, for example:-
   (1) the use of unannounced inspection;
   (2) commissioning independent expert reviews of certification reports on a random sample basis or where specific concerns have been raised; or
   (3) other means found effective in other sectors or in other countries.

5.2 Government to require from UKAS a formal report on lessons to be learned from the events leading up to the fire at Grenfell Tower.

5.3 Government to require from UKAS an annual report to Government that brings together learning from the audits of the Approved Bodies, both in respect of the Approved Bodies themselves and the standards and processes they work to.

5.4 Government to review UKAS's function in respect of the conformity assessment of construction products with a view to establishing a more ambitious, strategic role addressing the health of the market, capacity, consistency, shared learning, independence and impartiality, the effectiveness of oversight and UKAS's future governance and relationship with Government.

29. Standardisation

29.1 Organisational infrastructure

The rules for CEN/CENELEC membership as we understand them are summarised in section 10.3 above. On the face of it, these rules could represent a constraint on the freedom of BSI to work on standards specific to UK national priorities where they may overlap with an existing harmonised standard or something included in the CEN/CENELEC work programme (which we understand currently extends to more than 350 active mandates).

We have been assured by BSI that, under the terms of its new CEN/CENELEC membership, it will be able to deliver any new or revised standards that may be required in the UK as a national priority. That is clearly important - both to the public interest in the protection of effective standards and to BSI's standing in a world of increasingly global standards; and Government should therefore satisfy itself that BSI is indeed free to act.

The second aspect of the organisational infrastructure relating to the development of standards is the setting up of the Construction Products Standards Committee. This was heralded in the Implementation Plan published as the response to the Hackitt Review in December 2018, with a remit "*to provide advice to the Secretary of State on new and existing standards for the testing of construction products, including how conformity assessment could be improved*", and given that this is not to be a statutory committee, it can presumably be established now, in shadow form if necessary.

More detailed terms of reference have not yet been published, and we are advised that, since the establishment of the National Regulator for Construction Products, it will be for DBT/OPSS to settle them. Matters to be resolved include whether the committee's brief will extend to all aspects of standards linked into the CPR (so that it will also advise on product standards beyond testing, for example); also whether it will be the source of advice on changes to the testing regime and the conformity assessment process more broadly; the relationship to the new Building Advisory Committee (particularly in respect of standards relevant to both the CPR and the Building Regulations); the availability of people with the necessary knowledge and skills; and the demands upon those people in other aspects of the development of standards or regulations.

29.2 Standards

Subsequent to the December 2018 Implementation Plan, DLUHC commissioned research to provide the proposed Construction Products Standards Committee with an evidence base for decision-making, with the key outputs being:-

- a prioritisation framework for the review of test standards;
- the identification of product and test standards that should be the focus of the Standards Committee, based on risk and need; and
- a gap analysis of the current system, identifying the challenges in the testing regime faced by the construction industry and the development of new product standards for those products that would benefit from having a standard.

The findings of that research were presented and developed between June and November 2020 - and, as well as demonstrating what a daunting task it was (with the researchers considering more than 3,000 construction product standards associated with testing), it also brings home the task that faces the proposed Standards Committee.

On looking at both the survey data captured by the report and its conclusions (which DLUHC note as initial findings, and not part of Government policy), the foundations are good, with a majority view (ahead of Module 2 of the Public Inquiry) that the availability/coverage of standards was high.

However, the analysis also identified:

- a lack of standards around certain aspects of reaction to fire - specifically smoke toxicity (which has been raised repeatedly in our own consultations);
- significant gaps in the availability of standards for fire-stopping, fire sealing and fire protective systems, roof coverings, building kits, structural timber, laminated glass and thermal insulation; and
- fewer but still important gaps in standards relating to structural safety for gypsum products and roof coverings.

Many of these touch on issues raised in connection with the inquiry into what happened at Grenfell Tower.

Other issues were (and therefore still are, as we understand that any follow-up awaits the establishment of the Standards Committee):-

- Many standards and/or their evidence base are obsolete and need (or are in the course of) updating. The research notes that, of 277 standards referenced in the Approved Documents,

only 163 are classed as current, with the remaining 114 classed as withdrawn, replaced or superseded.
- Specific issues re the standards themselves include insufficient requirements re sampling and re-testing, too much reliance on self-certification, and questions about the methodology by which passes and fails are awarded.

There were also comments about a lack of systems testing (see section 29.3 below).

As for priorities, based on the framework set out in the report the following standards are characterised as high risk in terms of fire or structural safety:-
- BS 476 series: fire tests on building materials and structures[113]
- BS 8414 series + BS 9414: fire performance of external cladding
- hEN 1154, hEN 1155: door closers, hold-open devices
- EN 1363 series: fire resistance tests, general principles
- EN 1364 series: fire resistance tests for non-loadbearing elements, including curtain walling, windows and doors
- EN 1366 series: fire resistance tests for service installations
- BS 5839 series: fire detection and fire alarm systems
- EN 13501 series: fire classification of construction products and building elements
- hEN 13830: curtain walling product standard
- EN 15882: extended application of results from fire dampers
- TGD 019: fire resistance test for open-state cavity barriers.

This list includes three designated standards ("hENs").

The research also questioned whether the consensus approach to standards development is the best and only way of producing them, and is not alone in doing so. The suspicion usually aired about this approach is that it is dominated by representatives of manufacturers with a vested interest - and of course their participation is generally funded by their employers. Although these also tend to be the people who have the specialist knowledge required to inform and develop standards (and are also amongst those who have raised the concerns expressed in the research), concern about the dominance of manufacturers and their trade associations in the process undermines confidence in the standards themselves; and this has been aggravated by the reduction in representation of the public interest in the consensus process (by fire authorities for example), usually as a consequence of funding constraints.

As or more important, the researchers cited a lack of academic rigour in establishing and following the evidence. This is a view that has also come up in our consultations, with reference to an over-reliance on (subjective) opinion rather than (objective) scientific principles and evidence in setting standards.

Both as a counter to that and in order to speed the development or revision of testing standards identified as a priority, we recommend that reviews of standards adjudged to be critical to building safety are commissioned from suitably qualified experts, and that the consensus process commences with the product of these reviews. We believe this should be by direct commission from Government, or by a commission from BSI in a departure from its usual reliance on volunteer contribution; but either route should involve some review of the means by which standards are currently funded, published and charged. A review of the funding model might also

[113] Post-dated footnote: in December 2022, the Government launched a consultation (which closed on 17 March 2023) into a proposal to remove all references to the national classification system for construction products (the BS 476 series) from Approved Document B, and to require all relevant construction products to be tested to the British Standard version of the European Standard (BS EN 13501 series). See https://www.gov.uk/government/consultations/sprinklers-in-care-homes-removal-of-national-classes-and-staircases-in-residential-buildings/sprinklers-in-care-homes-removal-of-national-classes-and-staircases-in-residential-buildings, 23 December 2022.

consider the high cost of accessing standards, which is a comment made to us both by business (and SMEs in particular) and the CABs themselves.

We do not have the specialist knowledge required to second-guess the conclusions of the research report, but in terms of its methodology, high degree of industry engagement and level of analysis, it strikes us as a solid basis for starting the process of reviewing testing standards – the first step being the endorsement (by the Standards Committee, if established) of the system for setting priorities and of the priorities themselves.

It is hard to overstate the importance of standards in the conformity assessment process (and beyond). Manufacturers develop products to a designated standard when there is one; where required, Approved Bodies assess those products for conformity to the standard, using test methods which are themselves the subject of a standard; the Approved Bodies are accredited and reviewed by UKAS by reference to standards; and UKAS itself is peer reviewed by reference to a standard. It is therefore essential that standards are drafted so as to deliver the desired outcome, and are kept up to date with the same end in mind. For testing standards, that means it being clear what the tests are designed to demonstrate, being assured that the science behind them means the results can be trusted, and being informed as to the limitations of test results in applying them to different design scenarios.

When a standard is reviewed, those aspects which relate to the assessment process and which should be a particular subject of review (to inform a regulatory decision, where relevant) include:-

- the AVCP system level;
- the suitability of test methods, their comprehensive coverage within the standard, and the means of judging a pass/fail, including considering the need for a margin of safety;
- how sampling should be conducted so as to best represent the performance of series production;
- any requirements for periodic re-testing;
- the necessity and practicality for considering tests simulating ageing, with particular attention to re-testing products in place to gauge the effect of ageing;
- product-specific information requirements that should be included in or with the Declaration of Performance;
- specific labelling requirements.

Building a margin of safety into tests would also go some way towards addressing the problem of limitations in the testing methods themselves and the quality of construction in a test rig always being greater than is likely to be achieved on site. There is clearly a limit to this, and the margin cannot cover any extent to which quality control might be lacking on site, but where a degree of tolerance is usual and might be accepted, then that should be reflected either in test methods or in the threshold set for a pass.

The review should also consider whether the exercise has identified deficiencies in a standard which mean that products assessed under a previous version represent so much of a risk that they should be re-assessed within a set timescale. Although it is a good principle that products should be required to be re-tested whenever the standards they are assessed against are revised, there will be a capacity issue if so many of the critical standards relating to fire are revised simultaneously, and the need for re-testing early should therefore be gauged on a risk basis.

In addition to the standards for products and horizontal standards for testing, there are the standards relevant to the processes of management, assessment and accreditation listed in section 10 above. We have not reviewed these standards in detail, but some of the terms (such as a bar on UKAS giving guidance to Approved Bodies as to how they might address areas of concern) look unduly restrictive, given the need for a general raising of the game across the sector. We would therefore recommend a general review of the standards most relevant to the conformity assessment process, particularly the ISO/IEC 17000 series. This review should

commence with a light-touch, high level exercise, simply to establish whether any of the participants in the process (Government, Regulators, UKAS, Conformity Assessment Bodies or their customers) consider there are any aspects of those standards which stand in the way of a better way of doing things. The review would then dig deeper only if significant ideas for improvement emerge from that initial sift, mindful that there is a cost in changing the basis upon which organisations are currently accredited.

This review is particularly relevant to voluntary schemes, where the accreditation process is not underpinned by regulation, and where reliance is placed wholly on compliance with the standards against which accreditation is granted. The question is therefore whether there are protections in the CPR which are not adequately reflected in the accreditation standards.

Because of the inter-relationship with ISO 9001, a review should involve some scrutiny of that standard as well; and because there is a lot of overlap with the coverage of the CPR, the coherence and consistency of the whole set of requirements with the secondary legislation relating to construction products also needs to be checked. For example, the latest edition of ISO/IEC17025 describes the main changes since the previous version as a reduction in prescriptive requirements and their replacement by performance-based requirements by the application of risk-based thinking, and "*greater flexibility…in the requirements for processes, procedures, documented information and organisational responsibilities*". This therefore needs to be consistent with the approach taken in a new regulatory regime for construction products in the UK.

In all cases, it is not suggested that the recognised international standards should be set aside. The value and importance of standards established by national/international consensus is fully acknowledged. Rather it is to see whether those standards might be supplemented by more specific requirements that would strengthen the system - whether regulatory or voluntary. A non-regulatory example from the automotive industry is cited at section 32 below.

Recommendation 6, re standards: to address the coverage, quality and oversight of UK standards

6.1 Government to satisfy itself that BSI is free to act on mandates to develop or revise standards required as a UK national priority, unconstrained by the rules for CEN/CENELEC membership.

6.2 Government to set and publish terms of reference and *modus operandi* for the proposed Construction Products Standards Committee, to include providing continuing oversight of the effectiveness of product testing standards.

6.3 Government to establish a prioritisation system and, by reference to it, to undertake a prioritised review of critical missing or inconsistent product standards, or standards where compliance does not achieve a desired regulatory outcome.

6.4 Government to mandate BSI to facilitate the revision of existing or development of new standards in accordance with the established priorities.

6.5 BSI to develop a navigation framework to enable users to identify and locate standards relevant to their work, and to confirm their current status; and to put in place the means of keeping the prioritisation framework up to date.

6.6 Government to commission and fund the development or updating of regulatory product standards critical to safety, with the research and drafting groundwork to be commissioned from independent experts under the direction of a steering group of relevant stakeholders.

6.7 Subject to the line taken in relation to recommendation 6.6, Government and BSI to consider the longer term funding model for the development, publication and continuing review/updating of regulatory standards.

6.8 Government to reassure itself that the 17000 series standards by which the accreditation process itself is implemented and assessed remain fit for purpose, and are consistent

with the requirements of the Construction Products Regulations as they will exist after implementation of the secondary legislation proposed under the Building Safety Act.

29.3 Systems testing

(1) Generally

The lack of more standards for systems testing, coupled with the lack of "fitness for purpose" of those that do that exist, comes in for particular criticism. It is a recurrent theme in the Hackitt Review, and in the context of product testing the MHCLG Select Committee's pre-legislative scrutiny report recommends that "*the Government make provision…for a testing regime that treats products as parts of systems, perhaps by mandating the provision of a certificate confirming how the product performs when combined with other products*"[114].

It is easy to agree that it needs to be understood how products, as part of a system, will perform when incorporated into an assembly, and how one product might interact with another. It is not, however, so easy to say how that might be tested.

The Government response to the scrutiny report[115] states that it would be neither appropriate nor practical for this duty to be placed on manufacturers, and we agree. Apart from the impossibility of testing every product in combination with every other product with which it might ever be associated, any duty imposed on manufacturers is likely to be met with increased testing and therefore increased costs to the manufacturer (and eventually their customers); and the more wide-ranging and imprecise the duty is, the more that cost will increase, effectively at the discretion of the Approved Body, with no guarantee that the benefit will increase proportionately or at all.

Instead, the Government response refers to the duty of building designers and the obligation to meet the requirements of the Building Regulations; to the increased accountability, assurance and enforcement introduced by the new regulatory regime; and, for higher-risk buildings, to the requirement to pass through the gateways. These propositions also illustrate the problem: for the most part they relate to the development and checking of competent design, rather than how design proposals might be assured by the evidence of testing.

Further, however large the scale of testing is, whatever assembly is tested will, at some point, get fixed to something else – and that is just as capable of being the problem. Eventually, there must be some reliance on competent and well-informed design and execution, rather than expecting every proposition to be proved by testing.

Nonetheless, given the critical importance of some elements of a building performing a safety function, and the stark demonstration of the consequences of failure in the fire at Grenfell Tower (and other fires), it must be wrong to assume that there is no value in additional testing in the gap between product testing and the limited testing of completed work required by the Building Regulations.

There is also something of an anomaly (albeit a pragmatic one) in that an assembly (or "kit") that is produced by a single manufacturer is covered by the CPR, but it ceases to be covered as soon as any part of it falls outside the offer of a single manufacturer[116]. So, a product that might

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[114] *Building Safety Bill: pre-legislative scrutiny report by the Housing, Communities and Local Government Select Committee*, 24 November 2020, para 201.

[115] *Building Safety Bill; Government response to pre-legislative scrutiny by the Housing, Communities and Local Government Select Committee*, July 2021, para 160.

[116] The definition of "kit" in the indicative draft SI for CPR 22 omits the reference to separate components being marketed by a single manufacturer, but DLUHC advise that the CPR11 definition will be retained.

otherwise be regulated would cease to be a “product”, as defined in the CPR, if it were assembled by a chain of companies none of whom took responsibility for the end product, nor intended to place it on the market as a kit.

At component level there will be different information requirements for every product; and wherever such variations in use are foreseeable, this should be part of the testing standard, whether by direct or extended application; and wherever they are or implied in the performance claims made by manufacturers, they should be verifiable by reference to test data.

So, just as for components, the question for assemblies is what do dutyholders (whether designers, constructors or building owners) actually need to know that is based on testing, and that enables them to make sensible decisions within their area of responsibility? And of the things that they need to know, what is so critical that it should be regulated?

How this question is answered links to three other issues: the extent to which regulatory reliance is to be placed upon defined outcomes rather than prescriptive propositions; the proposed revision of the Approved Documents; and the importance of feedback. However, where the performance of an assembly is adjudged to be safety-critical, and where judgement or feedback from incidents points to a particular vulnerability in its make-up, then there is an argument for requiring it to be tested as an assembly in accordance with suitable standards.

Beyond that, safety will depend upon the competence of the designer (and at some point elements of design will always be a “desktop study”), applying both the general principles of their profession or trade and the information garnered from testing, and understanding (and being fully informed about) the limitations of such tests.

(2) Façade tests and testing generally

Criticisms of the principal UK standard for large scale cladding tests, BS8414, as lacking fitness for purpose fall into three general categories:

- that the test does not replicate 'the real world';
- furthermore, that it does not replicate a real fire; and
- that even given those limitations, there are problems with the test methodology itself [117].

Addressing the first of these calls into question exactly what the purpose of testing is. If its purpose is believed to be to replicate even an approximation of every circumstance that might arise for a given design proposition in “the real world”, then the ambition is doomed. For any assembly of scale, of which the most immediate example is cladding, even though the standard requires the subject to be a “real” specification, there will be more variations than can possibly be tested - as the external cladding turns corners, meets the ground or the roof, is penetrated for windows, is affixed to different backgrounds, and so on.

As pointed out to us during the course of our consultations, one of the most used (and most relied upon) tests in matters of fire, the bomb calorimeter test, involves putting a sample of material into a crucible, subjecting it to an electric charge, and then measuring how it burns - its combustibility. In no way is that a replication of what will happen “in the real world” but it provides a basis for deciding whether that material is suitable for a particular use in a particular location: a matter of confidence. That confidence comes from the fact that the test should produce consistent results, wherever and whenever conducted, and therefore a reliable basis for comparing the performance of different products that might appear suitable for that particular use.

[117] See, for example, *A Critical Appraisal of the UK’s Regulatory Regime for Combustible Façades*, Judith Schulz, Darren Kent, Tony Crimi, Jim L. D. Glockling & T. Richard Hull; Fire Technology 57, 261–290 (2021). https://doi.org/10.1007/s10694-020-00993-z

Three principles for designing tests[118]

- A test cannot represent reality. If it does, it is not a test.
- How "real" it is can be traded off against how "repeatable" it is.
- But a test cannot be completely real and completely repeatable.

Scaling that principle up to the example of cladding, it seems that few people would say that BS8414 is unimprovable, but its defenders point out that it was designed for just one purpose: to measure the rate of the spread of flame; and there is a consensus of expert opinion (underpinned by the tests conducted by government in July/August 2017) that, had the specification used on the Grenfell Tower been tested to BS8414, it would have failed.

Nonetheless, the test has almost equally vehement advocates and adversaries; and where there is a vocal difference of opinion as to whether a test is diagnostic of subsequent performance, and even as to whether its results are repeatable, then a core purpose of testing – providing confidence in the performance of whatever is tested – is undermined.

Seeking to make improvements in the standard for large scale façade tests has been the subject of formal discussion and debate in the EU for at least 5 years, and has been a topic for much longer than that. Although, as for standards generally, those deliberations seem to have been aimed at achieving "harmonisation" of national standards as much as producing a repeatable test which will give vital additional information that is not captured by existing ones, there are now alternatives on the table[119].

BS8414 is already included in the recommendation about a prioritised review of standards, and in view of the compelling relevance of the behaviour of external cladding systems (and rainscreen cladding in particular) in fire, the subject deserves a place near the front of the queue. It would benefit from an early colloquium, convened by Government, to capture the range of expert views, and to address the question, "What do we want to know?"

A reliable answer to that question would also be relevant to considering whether there are circumstances in which materials that do not qualify as incombustible might nonetheless represent an acceptable safety risk in situations covered by the current ban; and to considering whether tests of a smaller scale (and therefore lower cost) might either substitute for a large-scale test, or work in conjunction with one to extend its application.

Finally, any change in a standard for testing will mean that much of the value of historic data is lost, so there needs to be a clear gain as compensation for that if a change is to be made. Where, therefore, there is a proposition for change, then the test itself should be tested before implementation. That is, if a test panel is built with a return (or a window, or is built taller), does each change produce additional information that is of proportionate value - and if so, is that information that should be of interest to a regulator?

(3) Desktop studies

Reference has already been made to "injudicious desktop studies", and the risk of stretching test data beyond the proper limits of its applicability.

The term "desktop studies' is treated here as being interchangeable with "assessments in lieu of tests" and although that term has become particularly relevant in the context of large scale

[118] Dr Angus Law, The University of Edinburgh: https://www.youtube.com/watch?v=qrAXubGMcME

[119] See *European approach to assess the fire performance of facades*, Johan Anderson and Lars Bostrom (RISE Research Institutes of Sweden), Roman Chiva and Erick Guillaume (Efectis France), Sarah Colwell (BRE UK), Anja Hofmann (BAM Germany) and Peter Toth (EMI LLC, Hungary), funded by European Commission, published by Wiley, 24 October 2019 (revised 29 May 2020).

testing, and most particularly testing of cladding, it can relate to extending the use of test results for any product. Essentially the same principles will apply both to judgements about the extended application of test results for individual products and to more complex elements of construction requiring engineering input.

In the interim report of the Hackitt Review, reference was made to the inadequate management or control of the use of desktop studies and the recommendation was that '*the Government should significantly restrict the use of desktop studies to approve changes to cladding and other systems to ensure that they are only used where appropriate and with sufficient, relevant test evidence*"[120].

In the final report, it was noted that the recommendation had been accepted, and that Government was committed to commissioning a new British Standard on when and how desktop studies can be used[121]. There is therefore no need for an additional recommendation in this report, but rather for a set of principles which define the way in which studies are to be conducted, and by whom, and the circumstances in which they are not an acceptable substitute for physical testing.

There is published guidance that points to some of these principles[122], so there is no need to start with a clean sheet of paper, but a broad summary would comprise:

(1) Organisational capability: the requirements of organisations seeking to comply with the standard, including fully documented quality management system; competence, experience and supervision of personnel; commitment to continuing professional development; professional indemnity insurance cover.
(2) Individual capability: specific and appropriate levels of qualification and experience for personnel conducting assessments at different levels of complexity.
(3) Conduct: organisational and individual compliance with a code of conduct, including particular requirements re independence, impartiality and a duty to the public interest.
(4) Procedure for undertaking assessments: form of application; information to be provided by the manufacturer including all relevant test data; the appointment of assessors/reviewers.
(5) Specific requirements of test data: source, standards applied, requirement for witnessing by the assessor, currency.
(6) Peer review: procedures for internal and/or independent peer review to check and confirm the validity of the assessment; appropriate levels of qualification and experience for personnel conducting reviews.
(7) Scope, form and content of reports, including information used; calculations and reasoning leading to conclusion; sufficient detail to allow whoever may rely on the report to judge its applicability (and limitations thereto); measures necessary (for example in installation) to maintain the validity of the assessment; period of validity and need for re-assessment, including consequences of a change in the standards or other data relevant to the assessment; signed declaration.
(8) Obligations of manufacturers in respect of the use of assessment reports.
(9) Transparency: the workings of the desktop study should be made public, both so that their assumptions and limitations can be understood by those subsequently specifying, installing products, and so that compliance with the Building Regulations can be verified by Building Control.
(10) Sanctions for non-compliance.

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[120] *Building A Safer Future: Independent Review of Building Regulations and Fire Safety* - Interim Report, December 2017, para 1.94

[121] *Building A Safer Future: Independent Review of Building Regulations and Fire Safety* - Final Report, May 2018, para 7.8; and Secretary of State's update to the House, 18 December 2017 – https://www.gov.uk/government/speeches/grenfell-tower-and-building-safety

[122] See, for example, the Passive Fire Protection Federation *Guide to Undertaking Assessments in Lieu of Fire Tests*, June 2000.

Consistent with the recommendations we have made in respect of conformity assessment generally, the PFPF Guide also requires manufacturers applying for a desktop study to declare whether any other organisation or individual has been approached for the same or a similar product, and whether it has already been tested and the outcome of that; and to give clearance for the newly appointed assessor to approach anybody who has provided a previous assessment or declined to do so.

The key principle is that where an assessment is used in lieu of a test, it should nonetheless represent a prediction of the performance of what is under assessment if it could be subjected to a standard fire test. It follows that the assessment will suffer from the limitations of fire tests themselves, but also that there needs to be sufficient data to model the anticipated performance, so that judgement based on evidence is not replaced by opinion. In short, assessments should be based on relevant test evidence, not on another assessment.

As noted, the principles would apply to any extension to the application of test data, and the production of a framework standard, fleshed out and building upon these principles, would therefore be a significant service to the Industry and its customers. In common with all standards, this would call for a consensus process in which the industry must take the lead but with representation of the public authorities and of experts with the necessary specialist knowledge.

The extent to which the standard should be made regulatory for certain products or systems (most obviously by an amendment to the Building Regulations) would then be made by reference to their importance to safety-critical construction.

(4) Modern Methods of Construction

As modern methods of construction ("MMC") are increasingly adopted, new issues will be raised for the Regulators for both building safety and construction products. In essence, construction work involves the assembly of products into assemblies, and assemblies into a building, wherever that might be conducted; but there are particular issues arising in the context of the Building Safety Act which Government will need to consider. These are:-

(1) Whether, by virtue of being assembled under the directions of a single manufacturer, everything so fabricated becomes a "kit" and therefore potentially a product for the purposes of the CPR (subject to the development of designated standards), and what the implications of that might be.

(2) Whether any regulations or standards are uniquely required because of differences in design or construction arising from the use of MMC (specifically offsite prefabrication - and most particularly modular construction). The most immediate examples of this are:-

- the use of combustible materials in structural frames;
- the creation of voids within completed buildings as a consequence of volumetric modules being joined together - potential pathways for the spread of fire, and therefore a particular concern for fire chiefs;

> *Cavities in the construction of a building provide a ready route for the spread of smoke and flame, which can present a greater danger as any spread is concealed. For the purpose of this document, a cavity is considered to be any concealed space.*
> Approved Document B (Volume 1: Dwellings), 2019 edition incorporating 2020 amendments – for use in England, para 5.16

- the use of lightweight materials, where saving both weight and carbon may be in conflict with fire safety;
- the use of other materials (such as adhesives) which are not normally used in more traditional construction, or not used in quantities that may represent a hazard;
- the importance of on-site assembly, critical connections etc;

and there will be others which only a detailed study of the designs and processes adopted by individual manufacturers will identify.

(3) Which new regulations or standards call for specific testing requirements (which will also need to be covered by a standard)[123].
(4) How responsibility for surveillance and enforcement will be apportioned between product regulation and building regulations.
(5) More specifically, how gateway 2 will be implemented, where relevant, when much work will be completed in advance of a commencement on site.

As far as standards are concerned, we understand that the preparation of a Publicly Available Specification (PAS), which would include testing standards, is under active consideration by Government.[124]

The issues relating to surveillance, enforcement and gateways are particularly pressing, and would be so irrespective of the organisation of the regulatory regime. Whilst it might be assumed that work conducted in a factory is more amenable to quality control than work executed on site, the experience of those working in this sector is that this is often far from the case. Offsite fabrication is more like a site process (but conducted in a factory) than a more sophisticated manufacturing process, but may lack even the limited supervisory process normal on site - let alone the supervision appropriate for a factory process (where things move faster and will be more quickly concealed).

This is a consequence of a maturing industry, and in due course the standards will develop; but it will also call for newer skills and a new approach on the part of regulators, both to ensure that MMC doesn't fall into the gap between product and building regulations, and that whoever is responsible for surveillance and enforcement has the necessary knowledge and experience. In the meantime, MMC carries both the potential and the risk of all innovative products.

Recommendation 7, re systems testing: to strengthen understanding and application of testing products assembled into systems

7.1 Government to consider where, on the basis of the analysis of safety-critical construction, there is a necessary and practical regulatory requirement for additional system testing, with particular reference to the behaviour of external cladding systems in fire, and publish its findings.

7.2 Government and industry to address the special requirements of Modern Methods of Construction, in terms of standards, conformity assessment, regulation and regulatory oversight.

30. Conformity Assessment

30.1 Approved Bodies

(1) Organisation of Approved Bodies

As summarised in section 11.3 above, the EU bodies charged with the conformity assessment process required by the Construction Products Regulation are required to form a group (the Group of Notified Bodies) with the purpose of ensuring coordination and cooperation between

[123] Post-dated footnote: the revisions to the CPR announced by the EU on 30 March 2022 (see footnote 110) propose a harmonised technical specification for prefabricated one-family homes - with member states being able to decide whether to opt in or out of the single market.

[124] Post-dated footnote: in January 2023 it was announced that DLUHC has commissioned work to create a new UK-wide standard setting out recommended technical standards and quality assurance/compliance processes for building homes using a range of Modern Methods of Construction. These new requirements are intended to be introduced by BSI as a Publicly Available Specification, following consultation later in 2023. See: https://www.bsigroup.com/en-GB/about-bsi/media-centre/press-releases/2023/january/boost-for-modern-homebuilding-as-government-launches-work-with-industry-to-set-uk-wide-standard/.

them. The Group's principal product is a series of notes providing guidance where CPR305/11 leaves doubt as to exactly how the assessment process might be conducted. Notified Bodies are obliged to follow these guidance notes.

Following the UK's withdrawal from the EU, this group has been recreated as the UK Group of Approved Bodies (Construction Products), but without the guidance notes the doubt that they were developed to remove would be restored. DLUHC has advised us that it has informed the Approved Bodies that existing guidance notes should continue to be followed (see section 11.4 above); and we recommend that, wherever they are current, and subject to any copyright issues, at least the guidance notes issued up until the UK's withdrawal from the EU are formally adopted as guidance which Approved Bodies are required to follow, and which are subject to oversight by UKAS.

There also needs to be a realistic appraisal of what the UK Group can deliver in the future (given that there were more than 700 comparable bodies in the EU prior to the UK's exit, by comparison with 45 in the UK[125]), and the resources it would require to be effective, including keeping the guidance notes under review.

The Group therefore needs detailed terms of reference, together with clarity as to its relationship with other advisory bodies, including the Building Advisory Committee and the Construction Products Standards Committee, and its reporting lines to Government.

(2) CABs generally

If the conformity assessment process (both regulatory and voluntary) is to be trusted, then the Conformity Assessment Bodies need to be trusted, and they need to make positive moves to demonstrate that they can be.

In our discussions with the CABs, we have found them cooperative, knowledgeable and helpful.

In our wider engagement with the industry, however, two diametrically opposite views of the CABs emerge:-

- View 1: they are too close to customers and subject to conflicts of interest, possibly resulting in "*inappropriate assistance or collusion*"[126].
- View 2: they are too consolidated and powerful, inaccessible to small business, not responsive to their customers, and the process is costly and slow, with no right of appeal.

In addition, isolated comments suggest other issues, including:

- that product development specialists from within manufacturing companies sometimes feel that they know more about the equipment and the testing process than those conducting the testing on behalf of the CAB;
- that, because of their relationship with incumbent manufacturers, CABs are reluctant to test innovative products that might compete with established businesses;
- that, in the converse of the suspicion of collusion, CABs use the cover of impartiality as a reason to be positively unhelpful;
- that there is inconsistency between testing houses, with different laboratories producing different results for the same test, in spite of using calibrated equipment;
- that one cause of inconsistency is that some testing houses are "softer" than others – to the extent of suggesting to manufacturers that once a (potentially marginal) pass is achieved, they should not tempt fate by testing more samples.

[125] Post-dated footnote: there are 53 Approved Bodies as at the date of publication. See Appendix 4 for updated list.
[126] Closing Statement for Modules 1 and 2 on behalf of The Ministry of Housing, Communities and Local Government, 28 May 2021. See https://assets.grenfelltowerinquiry.org.uk/CLG00031133_Phase%202%20Modules%201%20%26%202%20-%20Written%20closing%20submission%20on%20behalf%20of%20The%20Ministry%20of%20Housing_%20Communities%20and%20Local%20Government.pdf.

It must be stressed that these are reported perceptions, not findings, as we have neither the brief nor the means to investigate every insinuation. They do, however, illustrate the potential (and actuality) of distrust, and also the polarity of that distrust – simultaneously alleging a relationship between testing houses and their customers which is either too close or too remote. Either way, there needs to be a transparent means of addressing any situations in which the nature of that relationship is perceived to be contrary to the public interest.

The issue of inconsistency has been of sufficient concern to the EU (via the GNB) for it to issue a guidance note. This refers to the requirement of ISO/IEC 17025 for laboratories to monitor their performance by comparison with the results of others, either by formal proficiency testing (for which there is also a standard – ISO/IEC 17043, and accredited providers) or by some other means. The note recommends that Sector Groups should initiate a programme of inter-laboratory comparisons when a need has been identified on the basis of test results differing depending upon which laboratory has carried out the testing, and where those differences are significant in the assessment of performance.

Generally, though, the issues of concern relate to trust and power; and the underlying suspicion is that a process requiring the independent judgement of a manufacturer's product cannot be trusted if the arbiter's business depends upon payment by the manufacturer whose products are being judged: that customer relations and shareholder return could become the dominant forces. As it happens, the ultimate ownership of the existing Approved Bodies ranges from private equity to public limited company to charitable trusts, but the suspicions persist.

There are three possible responses to allay this suspicion:-

- increased vigilance on the part of UKAS, in respect of adherence to the rules and the principles of accreditation for Approved Bodies;
- the creation of a clearer duty owed to the public interest in the performance of conformity assessment services;
- the creation of a separate body to deal with broader issues that could give rise to a grievance.

The role of UKAS is considered in section 28 of this report.

(3) A duty to the public interest

Although the figures vary substantially between Approved Bodies, not only are the manufacturers an Approved Body's customer for the regulatory conformity assessment process, some are also the customers for voluntary third-party schemes (which can represent a considerably larger proportion of an Approved Body's income than the regulatory process), and some are also customers for consultancy services. This potentially creates a clear conflict of interest, comparable to that of accountants offering both audit and consultancy services.

The over-riding general obligation of the CPR (reinforced by EC Decision 768/08/EC, and by UKAS's publication GEN 5[127]) is to ensure "*confidentiality, objectivity and impartiality*". The more specific requirement in respect of conflicts of interest (Article 43.4) is that "*an approved body … carrying out the third party tasks in the process of assessment and verification of constancy of performance shall not become directly involved in the design, manufacture or construction, marketing, installation, use or maintenance of those construction products, nor represent the parties engaged in those activities. They shall not engage in any activity that may conflict with their independence of judgement and integrity related to the activities for which they have been approved. This shall, in particular, apply to consultancy services*."

[127] *Accreditation for the Purposes of Appointment as an Approved Body under the UKCA System*, published 2 July 2021.

The obligation extends to the top-level management and personnel responsible for AVCP tasks – presumably whether or not as part of their employment with the Approved Body; and there is an additional requirement that personnel who have provided consultancy services in respect of a product (again, presumably, whether or not as part of their current employment) should not be involved in reviewing or making certification decisions for the same product for a period determined by the certification body – with a period of two years suggested.[128]

"Consultancy services" is not defined in the CPR, but ISO/IEC 17065 (the standard with which Approved Bodies providing certification services must comply) defines consultancy as participation in the design, manufacture, implementation, provision, installation, operation, maintenance or distribution (as relevant) of a product, process or service that has been or is to be certified[129].

The standard also limits the prohibition on offering consultancy services to clients of the certification body.

The standard for the accreditation of laboratories, ISO/IEC 17025, is worded rather differently. This requires that "*the responsibilities of key personnel in the organisation that have an involvement or influence on the testing and/or calibration activities of the laboratory shall be defined in order to identify potential conflicts of interest ... such that departments having conflicting interests … do not adversely influence the laboratory's compliance with the requirements of …* [the] *Standard"*. In addition, a third-party laboratory should be able to demonstrate that it is impartial and that it and its personnel are free from any undue commercial, financial and other pressures which might influence their technical judgement; and that it does not "*engage in any activities that may endanger the trust in its independence of judgement and integrity in relation to its testing or calibration activities*"[130].

The CPR also has a general requirement that an Approved Body should '*ensure that activities of its subsidiaries … do not affect the confidentiality, objective … and impartiality of its assessment and/or verification activities*'. This implies that subsidiaries can be treated rather differently in respect of conflicts – for example by managing conflicts rather than avoiding them by declining to engage in such activity altogether. The CPR is silent on companies related to an Approved Body (for example by virtue of shared ownership or management) where that company is not a subsidiary of the Approved Body.

ISO17065 does, however, impose requirements on other parts of '*the same legal entity'* as the certification body, or other entities under its organisational control.[131] These prohibit that entity from offering consultancy services relating to certification to clients of the Approved Body; but it may provide such services to others, and to former clients after an agreed passage of time.

Seeking to disentangle this, and reading the CPR and ISO/IEC requirements together, it would seem that, as long as the means of ensuring confidentiality, independence and impartiality are in place (and recognising that this can be a matter of judgement), the more prescriptive principles applying to the avoidance of management of potential conflicts of interest are as follows:-

- Approved Bodies may offer consultancy services that do not relate to the certification process to anybody.

[128] BS EN ISO/IEC 17065:2012 clause 4.2.10.
[129] BS EN ISO/IEC 17065:2012 clause 4.2.
[130] BS EN ISO/IEC 17025:2005, clause 4.1.4.
[131] "Organisational control" is defined in ISO/IEC 17065 (para 7.6.4) as one in which the whole or majority ownership is held by the Approved Body; or there is a major participation on the Board of Directors by the Approved Body; or the Approved Body has 'documented authority' through 'a network of legal entities (in which the certification body resides), linked by ownership or Board of Director control'.

- They may not, however, offer consultancy services relating to a product, process or service that has been or may be certified to anybody, even to somebody who is not also a client for certification services, as that would create an interest that can lead to a conflict.
- Undertakings which are 'part of the same legal entity or under its organisational control' are subject to the same prohibitions and permissions as the Approved Body.
- The management personnel of an Approved Body are bound by the same provisions as the Approved Body, whether or not acting in the capacity of an employee and additionally may not be involved in the certification of a product, process or service for a client for whom they have previously provided consulting services within a defined period.
- The activities of separate legal entities with which the Approved Body has a relationship shall be managed so as to ensure that the impartiality of the Approved Body's certification activities is not compromised. As part of this obligation, management and personnel engaged in certification must not be involved in each other's activities.

This summary does, however, depend upon the understanding of the broad term "consultancy services" being defined in the more limited way proposed in the ISO/IEC standards. If that or any other aspect of the summary is a misunderstanding, then that could usefully be clarified or corrected by Government and UKAS.

It would be possible to go further and place a ban on Approved Bodies undertaking any work at all (including consultancy services unrelated to certification) for a customer for whom they are also conducting a regulatory conformity assessment process.

Indeed, the indicative draft secondary legislation published with the Building Safety Bill appeared to go further still, effectively prohibiting an Approved Body from undertaking *any* consultancy services in its specialisms[132]. However, DLUHC advise that the intention is to retain the existing provision of the CPR, and in the absence of evidence of conflicts of interest leading to misconduct we would support that approach. The effect of a greater restriction would fall disproportionately on some businesses, and it could also lead some of them to withdraw from regulatory conformity assessment, aggravating the capacity problem.

Instead, we recommend that Approved Bodies should be required to log with UKAS wherever they have any such potential conflict of interest (whether relating to the Approved Body, any parts of the same entity, or entities under its control or with which it has a relationship), and how they are managing the conflict.

As far as more specific duties are concerned, we believe there are weaknesses in the existing system that could and should be addressed by a duty to warn. For example, the requirement of the CPR is that any Approved Body which has reason to believe that a Declaration of Performance does not accurately reflect the conclusions of the assessment process should notify the manufacturer of that fact - but, it seems, nobody else.

A *suspicion* that this is happening should not extend to a duty to inquire or investigate, but there should be a duty on Approved Bodies to warn the Regulator (or UKAS on the Regulator's behalf if that is the arrangement made between them) where there is good reason to suspect that a manufacturer is "shopping around" for a test pass; or is misrepresenting the conclusions of the conformity assessment process in the Declaration of Performance, any related product information or other marketing material; or is manipulating the system in any other way that could undermine confidence in its outcome.

[132] Draft Statutory Instruments 2022, Building And Buildings Construction Market Standards, The Construction Products Regulations 2022, Schedule 3, clause 2(1): "*an approved body must … ensure that its top-level management and the personnel responsible for the activities for which it has been approved … do not engage in any consultancy services in relation to the activities for which the body has been approved*".

Similarly, whilst the accuracy of the Declaration of Performance and the correction of any errors in it is the sole responsibility of the manufacturer, where an Approved Body is aware of material errors it should withhold or suspend its certificate until any inaccuracies are corrected.

Any duty that goes beyond that should then be considered in the context of the testing process itself.

General criticisms made of that process include:-

- that a product that only just passes the testing standard should not be good enough;
- that a simple pass/fail result gives no indication of a product's real behaviour in fire, nor about its tolerance and accuracy or any other limitations or uncertainties to be taken into account in making decisions about the appropriate design, installation or use of the product;
- that a single sample being tested cannot be representative of a subsequent production run;
- that testing houses "just test to the standard" and do not consider broader issues - most obviously the safety of the product.

In all cases, we regard it is a solid principle that Approved Bodies should only test in accordance with a standard (whether designated or developed through the Technical Assessment process) and in accordance with the processes mandated by the CPR, observing the terms of their accreditation by UKAS. The purpose of the assessment process is to allow the product to be marked and placed on the market – and, given the original purpose of creating a single market, it might also be said (if only in that context) that it is more important that the standard is "harmonised" than that it is fit for purpose. In those circumstances, and noting the requirements of the CPR (and much GNB guidance) about the avoidance of placing additional burdens onto manufacturers[133], Approved Bodies should not be permitted to make their own decisions about how much testing to do, and what standard they might apply - and then charge accordingly.

If, therefore, just passing the threshold is not good enough, or multiple samples should be tested, or the standard does not deliver an outcome that might be desirable but is not one of the performance requirements of the standard, then the standard should be revised. Feedback from Approved Bodies will be an important contribution to the review of testing standards already recommended, and should also be on the agenda for the engagement of UKAS with the Approved Bodies, with a view to ensuring that compliance with the standard leads to a safe product.

Unless and until that position is reached, then, looking at our terms of reference and the brief to consider how "*the UK system for testing the safety of construction products*" could be strengthened, it would be truer to say that there is no UK regulatory system for testing for safety, but rather one for testing for conformity to the designated standard, and safety will therefore come only as a by-product of conformity.

By the same token, imposing a duty on an Approved Body for any aspect of the fitness for purpose of the product itself would give the body an interest to protect (again potentially at its client's cost), and would also undermine the clarity of responsibility for the performance of the product itself, which should rest with the manufacturer.

For the same reason, we would not agree with the proposition of the indicative draft CPR22 that Approved Bodies should "*respect…the part played by the product for the fulfilment of all basic requirements*"[134]. Even in the context of proportionality, this is too general an injunction for

[133] See CPR Recital (27) re the necessity for simplified procedures " *to alleviate the financial burden of enterprises, in particular small and medium-sized enterprises*" and Article 52.3 requiring that: "*Assessments and verifications of constancy of performance shall be carried out … in a proportionate manner, avoiding an unnecessary burden for economic operators*".

[134] Draft Statutory Instruments 2022, Building And Buildings Construction Market Standards, The Construction Products Regulations 2022, Schedule 3, clause 3(5).

Approved Bodies to be clear as to what action is required to satisfy it beyond assessing against the standard, and it once again risks a loss of clarity of responsibility.

Nonetheless, although we do not believe an Approved Body's duty should extend to any kind of warranty about the product, we do think there should be the equivalent of a warranty about the assessment process itself, confirming that it has been conducted fully in accordance with all relevant statute and standards and the conditions of accreditation. For example, it should include, either by specific declaration or automatically by virtue of issuing a certificate, confirmation that:-

- the sample (where testing a component, at any AVCP system level) has been selected by the Approved Body at random and is believed to be representative of series production;
- the test rig (where testing a system) has been witnessed by the Approved Body as constructed in accordance with the drawings and specification provided by the manufacturer;
- test reports, classification reports and certificates all accurately describe what was tested and how, in order to make clear both the coverage of the process and the limitations of applicability;
- the Approved Body is satisfied that it is in a position to issue a certificate without any concerns that it has reason to believe may undermine the trust that can be placed in the certificate (failing which it should withhold the certificate until satisfied).

The purpose of these duties to warn, to advise and to declare would be to ensure that not just the individual outputs of conformity assessment, but also the whole process, represent a public good; and this could be subsumed into a general duty to serve the public interest. If drafted so as to avoid any ambiguity as to where ultimate responsibility for the performance of products must lie (that is, with the manufacturers), this would make this obligation more explicit, and would moderate an Approved Body's contractual relationship with product manufacturers.

(4) An Oversight Committee

To balance the duties proposed above, and in response to the contrary charges of CABs being either too close to manufacturers' interests or too remote from them, we also recommend the creation of a national oversight (or impartiality) committee. This would have as its primary function considering grievances raised by existing or potential customers of the CABs, such as appeals against decisions made in the assessment and certification of products, or undue delay in handing down and documenting decisions.

The precise terms of reference and constitution of such a committee would need careful crafting, with membership that balances independence and detachment with sufficient knowledge of the industry. Its relationship to UKAS would also need careful definition, and this would in turn need to fit with the outcome of the recommended review of UKAS's role.

As a minimum, however, we believe that it could perform a useful function in the operation of voluntary third-party certification schemes, and this is addressed in section 32 below.

Whether the brief of the committee extends beyond voluntary schemes then depends upon the outcome of deliberations about the future role of UKAS. It could for example, include oversight of the "*mechanism for safeguarding impartiality*" (usually constituted as an Impartiality Committee) which certification bodies are currently required to have in place under the terms of ISO/IEC 17065 (clause 5.2), and a review of procedures that all certification bodies have to underpin independence and impartiality; and, as for voluntary schemes, it could provide a layer of self-regulation dealing with issues raised either by manufacturers or by any third parties who question the impartiality of the accreditation process, including whistleblowers. If extending beyond voluntary schemes, however, then the "careful crafting" of its role would additionally have to take into account its relationship to the NRCP.

In whatever role, to the extent that the committee encounters issues involving a significant breach of regulations or of the rules of certification by an accredited body, then it would refer to UKAS or to the NRCP as appropriate.

Recommendation 8, re Conformity Assessment (Approved Bodies): to restore the outcome of the conformity assessment process as a public good

8.1 Government formally to adopt all existing current CPR-GNB guidance notes, and set out plans for reviewing and updating the notes and for producing new guidance in the future.

8.2 Government and Approved Bodies to finalise terms of reference for a UK group of Approved Bodies and the means of funding its activities, including the support of a technical and administrative secretariat.

8.3 Government to require Approved Bodies to declare to UKAS any cases in which they are providing consulting or other services not related to conformity assessment to customers for whom they are also conducting conformity assessment, and the measures put in place to manage any conflict of interest.

8.4 Government to impose upon Approved Bodies a duty to inform the Regulator where there is good reason to suspect that a manufacturer is "shopping around" for a test pass; or is misrepresenting the conclusions of the conformity assessment process in the Declaration of Performance, any related product information or other marketing material; or is manipulating the system in any other way that could undermine confidence in its outcome.

8.5 Government to require Approved Bodies to withhold or suspend a product's certificate if they become aware of any inaccuracies in a Declaration of Performance, until such inaccuracies are corrected.

8.6 Government to create a statutory duty upon Approved Bodies to act in the public interest in the conduct of the conformity assessment process, and to ensure there are effective enforcement remedies for a failure to do so.

8.7 Government, UKAS and CABs to consider whether any functions of the Oversight Committee recommended to oversee the conduct of voluntary third-party schemes (see recommendation 14.2) might usefully and appropriately be extended to the regulatory conformity assessment process.

30.2 Manufacturers

Many of the issues arising in respect of misconduct around the performance of products relate to claims made about performance that are not supported by the testing and assessment process, rather than about the process itself.

To the extent that this is the result of dishonesty or careless disregard for the process, then the ultimate remedy must lie in the new offences and sanctions enshrined in the Building Safety Act, effectively enforced and aided by transparency in the declarations to be made by manufacturers.

There are, however, some circumstances in which the existing regulations can lead to the Approved Bodies being misled as to the full story of the product that they are required to assess; and these weaknesses in the system should be fixed.

The first issue is the reliance upon the manufacturer to provide a representative sample for testing or, in the case of systems testing, to build a test rig that is representative of the system to be tested.

As far as component testing is concerned, there are possible loopholes in the AVCP system which should be closed, or and/or which could usefully be covered by a general requirement to

act in good faith - as in the provisions covering marketing, for example. These possible loopholes are:-

- providing a sample which is not representative of the production run (for example by providing a prototype that has been engineered to best, rather than worst, case);
- providing samples to the testing laboratory which are different from those selected by the Approved Body.

In respect of the first of these points, although the CPR requires the sample to be engineered to the worst case, that is virtually uncheckable, and abuse (or concern about abuse) of the provision is sufficient for such samples to have acquired a nickname: a “golden sample” or a “lab queen”. Where, therefore, assessment is based on a prototype, then the product should, wherever feasible, be re-tested once it is in series production to provide some independent assurance of the manufacturer’s obligation to declare performance to a representative sample and then maintain performance throughout production.

Addressing the second point is a case of the Approved Body and manufacturer agreeing a practical way of marking samples selected for testing, and then for the manufacturer to ensure that the sample that is delivered to the Approved Body is the one selected, with deliberate or careless failure to do so being an offence.

Turning to system testing, we think it is right that responsibility for building the assembly to be tested should remain with the manufacturer, to avoid any subsequent argument that failure is attributable to wrongful assembly by the Approved Body. It is essential, however, that the manufacturer must provide full specifications and drawings in advance of assembly, and that assembly is witnessed by the Approved Body, with sufficient records taken to confirm compliance with the specification and drawings. Recommendations relating to Approved Bodies’ obligations in this respect are made in section 30.1 above.

The other issue relevant to the assessment process itself has already been referred to: the risk of manufacturers “shopping around“ for a pass by trying different Approved Bodies. Although we do not agree that publishing failed test results would be an effective way of managing this risk (see section 30.3 below), we do believe that the Approved Body should have the fullest possible history of the development of a product, including its testing history.

Manufacturers should also declare other testing proposed for the same product, including different essential characteristics of the same product. The ability to appoint separate testing houses for different essential characteristics is a pragmatic response to the limited capacity for testing all products for all characteristics, to prevent excessive consolidation of testing houses and to provide manufacturers with options; but it is also a complication in the process that could lead to abuse. There consequently need to be guards against the risk of a manufacturer swapping Approved Bodies (or using more than one Approved Body simultaneously) in the hope of securing a potentially random pass, or in order to conceal a failed test or a suspended or withdrawn certificate.

There is then one additional risk that follows certification, and that is there being a change in the specification or manufacture of the product which invalidates or calls into question the conformity assessment or possible use of the product. The obligation to be truthful both in the Declaration of Performance and the marketing of the product therefore needs to be accompanied by a duty to notify the Approved Body that issued the certificate wherever a potentially material change has been made.

Recommendation 9: re Conformity Assessment (Manufacturers): to ensure Approved Bodies are provided with all relevant information when making an assessment

9.1 Government to place a duty on manufacturers to:

(1) declare to the Approved Body the testing history of a product, including failed tests and developments made to the product since the failure;

(2) confirm whether any other testing is planned in parallel;
(3) ensure that samples delivered for testing are as selected by the Approved Body;
(4) produce full specifications and drawings of test rigs (where relevant), and arrange for delivery notes to accompany all materials delivered for the purposes of testing; and
(5) re-submit for testing a sample selected by the Approved Body from series production where a certificate has been based on testing a prototype.

9.2 Government also to place a duty on manufacturers to notify the Approved Body that issued the certificate whenever a potentially material change has been made to the specification or manufacture of the product.

30.3 Failed test results

It was a recommendation of the Select Committee that the Government should provide for the publication of test failures and re-run tests (Recommendation 37). However, we agree with the argument set out in the Government response that doing so would not make a useful contribution to the necessary principle of transparency. As stated in the response, testing is a necessary part of product development, and should not be disincentivised.

It is also legitimate for manufacturers to engineer their products up or down so that they meet the standard, without excessive cost or waste. We understand the sentiment that an industry should not be satisfied with a product that is "just good enough", but the purpose of a regulatory system is to set performance standards that are adjudged to be "good enough", and to ensure compliance. Again, if the standard turns out not to deliver the performance which offers adequate protection, possibly with the addition of a margin of safety, then the standard should be reviewed. Beyond that, additional expense that adds quality (whether that is in terms of functionality, whole life cost or however quality might be measured) should be a decision for manufacturers responding to customer preferences.

Just as important, though, the publication of failed tests does not provide the market with clear and useful information. The implication (and presumably the reason for the idea being promoted) is that because a product has failed tests in the past, there might be some question as to whether it got lucky in securing the pass against which it has been marked, and less reliance might therefore be placed upon the successful test result. What is needed is that, whatever the product's history, reliance can be placed upon test results as finally declared.

These comments do, however, relate to the general publication of test results - as opposed to the understanding that an Approved Body should have of the full history of a product that is brought to it for assessment, which is considered above.

30.4 The AVCP system

Any commentary on the AVCP system as it currently stands - which is effectively retaining the EU system - needs to be qualified by reference back to the implications of a decision on EU alignment, and the working assumption of this review that maintaining alignment is not an objective.

The other relevant piece of context is the issue of coverage and the introduction of a general safety requirement, and a proposition that flows from that: if that requirement is regarded as sufficient protection against general safety risks, then all products except for those that are designated as "safety-critical" could drop out of the AVCP system altogether.

As for safety-critical products, if that term is to mean anything it must also mean that such products should be assessed at the highest level of the AVCP system, level 1+, wherever all

steps in that process are relevant and practicable. This also means that the assessment process should be statutory (as opposed to voluntary), and that was the intention of the indicative draft regulations published with the Building Safety Bill.

The thoughts that follow on the weaknesses and opportunities implicit in the existing system are therefore subject to the recommendations made in respect of the general safety requirement and safety-critical products, as sections 25.6 and 25.8 above.

(1) Generally

Apart from the question of coverage, the other general weakness (or at least uncertainty) in the current system is the apparent lack of transparency about how products and their essential characteristics are allocated to particular AVCP system levels, and consequently about the objective criteria that lead to that decision. Clearly there can always be decisions that risk looking arbitrary at the margins, but the clearer the criteria, the greater should be the consistency of those decisions, and the greater the understanding and acceptance of them - and therefore the understanding of the importance of compliance.

It may be that these criteria exist, and are operated by those who make the decisions about the allocation to system levels, but we have not been able to find anything beyond the generalisations of CPR11[135] and the equally general statement about allocation being made on the basis of the nature of the products. Whatever the criteria are, they lead to some surprising conclusions, such as the surprisingly small number of product families assessed at the highest AVCP levels (1+ and 1) and the nature of those products. This is summarised in the table included as figure 3 in section 12.3 above, and consideration of all system levels illustrated in that figure follow.

(2) System level 4

This level does not require any third-party involvement, and the protection offered by the AVCP system and the related provisions of CPR therefore relies upon self-certification.

As set out above, and as far as we have been able to ascertain, 52 products are assessed entirely at this level, and an additional 190 products have at least one essential characteristic assessed at this level.

Given that, at best estimate, about two-thirds of all construction products fall outside the scope of CPR, and those that are covered are so only because of the slightly random fact of also being covered by a designated standard, we would question the value of including them in the AVCP system at all – aqain subject to the provisos concerning the general safety requirement and safety-critical products.

The consequence of including them is that there is a statutory requirement to have in place a factory production control process (see section 12.4 above), a positive requirement for testing conducted by the manufacturer, an obligation to make a Declaration of Performance, and the particular regime of surveillance, enforcement and possible sanction that follows. This might become relevant in the event of any subsequent lack of performance that can be attributed either to a deficiency in FPC or to claims made by the manufacturer that are not supported by test results, but this still relies upon the manufacturer producing verifiable records of both the FPC system and any testing.

[135] Article 28 of the CPR, as retained in UK, law requires the Secretary of State, in deciding which AVCP level(s) should apply (for application in Great Britain), to take into account '*the effect on the health and safety of people, and on the environment*' and to '*choose the least onerous system or systems consistent with the fulfilment of all basic requirements for construction works'*.

As far as safety is concerned, if either testing or a documented FPC system (or both) are necessary to demonstrate reasonable skill and care in meeting a general safety requirement, then there should be no need for an additional regulatory requirement unless statutory protection is required for other essential characteristics of the product. That should be established by reference to objective criteria – and criteria which, in the interests of proportionality, are again considered in the context of those two-thirds of products that fall outside the AVCP system altogether.

(3) System level 3

This system level differs from level 4 in that the testing is required to be conducted by an Approved Body. However, there is a difficulty in the absence of any template by which the assessment is conducted and its results published. DLUHC is well aware of this (it has been inherited from the EU regime), and the development of such a template (or "performance assessment") will be required in due course.

In addition, wherever testing is to be conducted by an Approved Body, we recommend that sample selection should also be by the Approved Body.

Clearly, though, this depends upon the future of the AVCP system as a whole. As with level 4 , there needs to be a more rational basis for including a product in the system than the happenstance of it being covered by a designated standard. This more rational approach would consider:

- what particular risk is being addressed that is not inherent in comparable products (or their essential characteristics) for which there is no standard; and
- what level of assurance is provided by requiring independent testing, but no initial or continuing surveillance of factory production, and no sampling of series production.

If there is no convincing answer to those questions then, again, we would question the value of including in the AVCP system products currently allocated to level 3, rather than relying on the general safety requirement (again subject to the provisos in relation to that requirement that are set out above).

One final wrinkle relating to system level 3 is the simplified procedure by which a micro-enterprise can opt for its products to be assessed at level 4 of the AVCP system when it would otherwise be assessed at level 3 (see section 12.6 above). If there is an argument for retaining system level 3, then a decision as to what is included in it should be based on the risks presented by the product, not its source. We therefore recommend that this option is discontinued.

(4) System level 2+

Under level 2+, the manufacturer is responsible for establishing factory production control and for sampling and testing, but an Approved Body is required to carry out initial and continuing surveillance of production and issue an FPC certificate. There is no requirement for independent testing.

Most of the products assessed at this level are structural components, for some of which (major precast concrete elements, for example) destructive testing would clearly be impractical. For others (such as adhesives for structural use) the absence of a testing requirement would be a systemic weakness where that use can be safety-critical.

In spite of enquiry, we have not been able to ascertain why products that could be tested are allocated to a system level more suited to products for which there is no practical possibility of testing. Alternatively, there may be adequate protection in testing regimes designed for other purposes where products are not exclusively directed towards construction (such as steel).

This therefore needs to be considered as part of the study of the criteria relevant for the different system levels; and products currently allocated to level 2+ should be included in a general review of the AVCP system, to identify those that are safety-critical, and then the highest level of AVCP system treatment that is practical.

(5) System levels 1, 1+

Both of these levels require the full involvement of an Approved Body, including testing and product certification. The principal difference between them is that only level 1+ includes the requirement for periodic sampling and testing by the Approved Body during series production.

The surprise is that there are only 10 products with characteristics that are assessed at level 1+, the highest level of protection offered by the system, and half of those are specialist cements. Although we have not been able to confirm it, it is possible that the reason for this is that the cements are sensitive to very small changes in the manufacturing process, and that it is better to establish that the product is defective before it is mixed into concrete or mortar and then used - at which point recall is hardly an option, and withdrawal may be inappropriate when “series production” relates to batch production (apart from any unused and traceable parts of the same batch).

This may illustrate some of the criteria in play in the allocation to system level (see above), but it remains a surprise that there is no requirement for audit sampling of more products that might be adjudged to be critical to safety.

(6) Summary to section 30.4

As the Building Safety Act assumes the continuation of a regulatory framework that retains the AVCP system substantially in *status quo*, the consequence is that a system that previously had just one category of products subject to specific regulatory control (and assessed through the AVCP system itself) is to be replaced with one comprising three:-

- the general safety requirement (for which the current proposition, as we understand it, is that there will be no specific standards, and no formal assessment framework beyond whatever manufacturers judge to be necessary as part of their risk assessment);
- a substantially unmodified CPR regime (including the AVCP system) for products for which there is a designated standard;
- a new category of safety-critical products (for which there will be “safety-critical standards”, which in turn will specify the necessary AVCP system level – and which could, on analysis, call for some modification of that system).

An already complicated system has therefore been made more complicated.

Simplification should not come at the cost of a loss of effectiveness, but by the same token any additional complexity needs to be justified on the basis of increased effectiveness.

On this basis, the alternatives to be tested against the twin criteria of simplification and effectiveness would be:-

(1) to rely entirely on the general safety requirement;
(2) to retain all three components, including the AVCP system substantially in status quo;
(3) to rely on a general safety requirement for all except products designated as safety-critical, and to require safety-critical products to be assessed in accordance with a modified version of the AVCP system.

Reliance upon the general safety requirement alone would, we believe, offer inadequate protection, partly because of concerns about its effectiveness, particularly *ab initio*; but also because, where the consequences of failure are so high, there should be some assurance that product assessment has been independently conducted.

Our recommendation would be to adopt the third option, which, although expressed as a series of graduated options, would comprise:-

(1) applying the regulatory AVCP system only to products that are designated as safety-critical;
(2) defining the AVCP system as a single level comprising seven possible steps: the existing steps of the system (FPC + sampling + testing + initial production surveillance + continuing product surveillance + audit sampling - all as existing AVCP system level 1+) plus a requirement for labelling/traceability;
(3) requiring the essential characteristics for all safety-critical products, where those characteristics are relevant to safety-criticality, to pass through all seven steps, unless any one of them (and most particularly independent sample testing prior to certification and/or subsequently during series production) is impractical because of the nature of the product;
(4) relying upon the general safety requirement, reinforced by standards and guidance which aid compliance, for all other products and for essential characteristics that are not safety-critical;
(5) setting a minimum standard for all voluntary third-party schemes, so that they replicate the rigour of the regulatory AVCP system as redefined above;
(6) considering reserving technical assessment, leading to voluntary marking, for safety-critical products for which there is no applicable standard as a transient provision until such time as a safety-critical standard has been developed.

The effect of this would be to raise both the ceiling and the floor of the system, making the assessment of safety-critical products more stringent, whilst leaving less critical ones to the general safety requirement, so that the regulatory focus (and cost burden) would be on products from which real harm might be done in the event of failure.

The recommendation does, however, depend upon four levels of confidence:-

- that the imposition of a general safety requirement can be framed so as to produce an effective response from the industry (see section 25.6 above);
- that a genuinely diagnostic definition of “safety-critical” products can be agreed and applied, and that every product that matches that definition is included in the category, whether or not it is currently the subject of a designated standard (see section 25.8 above);
- that effective surveillance and enforcement is put in place (see section 36 below);
- that the gains from simplification and an increased focus on safety criticality will outweigh the loss of alignment with the EU and the disruption and cost associated with all change.

It should also be established whether other product characteristics, unrelated to product or building safety, need to be protected by their continuing inclusion in a regulatory conformity assessment process.

We re-state, as particularly relevant to these graduated options, the assumption that all propositions for change will be included in a full consultation process for any secondary legislation relating to construction products. Also, the implications of any one proposition are likely to ricochet through at least some of the others; and all are subject to compliance with WTO rules, particularly in respect of technical barriers to trade.

Recommendation 10, re conformity assessment (the Assessment and Verification of Constancy of Performance system): both to simplify and strengthen the AVCP system.

10.1 Government and industry to review the AVCP system in general, with a view to simplifying it, considering:
   (1) the criteria for allocation of products and their essential characteristics to system levels;
   (2) the actual allocation of products/essential characteristics to system levels;;
   (3) whether the existing five levels and the actions at each level are also necessary and adequate; and
   (4) how responsibility for the actions should be allocated between manufacturers and Approved Bodies.

10.2 More specific recommendations to be addressed are:-
   (1) removing AVCP system level 4 from the regulatory conformity assessment process;
   (2) eliminating the simplified procedure by which micro businesses can opt for products which should otherwise be assessed at AVCP system level 3 to be assessed instead at level 4;
   (3) going further, removing AVCP system level 3 from the regulatory conformity assessment process (or, if it is to be retained, establishing a template for system level 3 and requiring sample selection by Approved Bodies);
   (4) going further still, removing all products from the regulatory conformity assessment process except for safety-critical products; and
   (5) introducing initial testing at level 2+ and series production testing at levels 2+ and 1 (in addition to 1+), where practical given the nature of the product.

30.5 AVCP documentation

The product of the AVCP process is a set of documentation which (currently) provides the basis upon which the product can be placed on the market, and the evidential basis against which the manufacturer declares performance. This documentation comprises:-

- the test report or appropriate alternative documentation;
- the classification report, confirming the performance of the product in fire where that is a requirement of the standard or the Building Regulations;
- direct and extended application (DIAP and EXAP) reports;
- FPC or Product Certification.

The current regulatory position is that, whilst this documentation is the basis for publishing a Declaration of Performance, there is no requirement to publish the back-up documentation itself. However, this represents a problem for subsequent dutyholders who want to look to that documentation for the information they need to specify, handle, use and maintain or operate the products, particularly in comparing products when making buying decisions; and who feel they cannot rely on the Declaration of Performance alone, as currently prescribed.

Subject to the comments below, our recommendation is therefore that manufacturers should be required to make all of this documentation available.

Furthermore, in order to ensure that the documentation is authentic and current (or to provide access to previous documentation that may have been superseded), there would be great benefit in all such documentation being lodged centrally and publicly available. In addition to limitations placed upon manufacturers in making use of a certificate that has been restricted, suspended or withdrawn (see section 12.16 above), it is particularly important that those who rely on certification and information derived from it can be made aware of its current status. Our understanding is that the *CertCheck* database being developed by UKAS for logging certificates for management systems, and due to be launched in 2022, could be expanded to accommodate this.

We acknowledge that the issue of test results is not a simple one. Apart from the technical complexity of the reports themselves, the complication relates to intellectual property and the suggestion that this is a valid reason for keeping test results private. There are, however, good reasons for test results being more widely available, in addition to the obvious service of transparency that publication would represent.

The first is that, if manufacturers are required to report to the Approved Body any change in the specification or manufacture of their product since it was tested, then there needs to be a record of exactly what was tested.

That might still be a matter between manufacturers and Approved Bodies, but a number of fire engineers and other specialists working in the sector also assert that they need access to full test results to make responsible design decisions.

Unless, therefore, manufacturers can demonstrate how intellectual property can be protected and still be sufficiently transparent about the make-up of a product to establish whether it remains unaltered since testing, and to provide designers with the information that they need to design responsibly, then our recommendation is that the test results that support a Declaration of Performance should be publicly available, and in full; and if it is feasible for a UKAS database to hold certificates, then it could usefully be expanded to hold test results too.

This is a particular matter for consultation, but we do note that the requirements of the industry's Code for Construction Product Information propose the publication of test reports and classification and certification documents (see section 33 below).

In any event, even if there is any justification for confidentiality, it must not be a way of avoiding regulatory scrutiny, so as a minimum the Regulator must have access to full test results in the event of an inquiry. In addition, in order to prevent any obstruction of access, test results should be jointly owned by the Approved Body that conducted the tests and the manufacturer, with the Approved Body obliged to release them to the NRCP if any statutory conditions set for their release are satisfied.

We also note that ISO/IEC 17025 allows Approved Bodies to produce abbreviated test reports if that is agreed with the manufacturer. This may be consistent with the principle of test reports being wholly the property of a manufacturer, but it is not consistent with the principles of transparency and the provision of full information for the requirements of subsequent dutyholders – both of which should be governing principles following the lessons of the fire at Grenfell Tower. Once the scope and format of test reports has been agreed, there should be no private means of abbreviating them.

Finally, even where the CPR and/or the standards set out the coverage of this documentation, they are not prescriptive about the template. This means that each document varies from Approved Body to Approved Body, and again this impacts on those who rely upon the documentation for the information they need. We therefore recommend that Government and the industry seek to agree a standardised suite of documentation which ensures complete coverage and assists users in finding the information they need for safe design, construction and use.

Recommendation 11, re AVCP documentation: to ensure the transparency and accessibility of assessment documentation

11.1 Subject to recommendations 11.2-4, manufacturers to be required to make available the full suite of documentation that supports the Declaration of Performance.

11.2 Government, the Approved Bodies and industry to consider whether it is possible to include in certificates and classification reports all information derived from testing that is necessary to support the claims made in the Declaration of Performance, provide a

reliable baseline to identify future changes in composition or manufacture, and meet the information requirements of subsequent dutyholders.

11.3 If that is not possible, manufacturers to be required to publish readily accessible test reports in full.

11.4 If there are good reasons why full test reports should not be published, the reports should be held in the joint ownership of the Approved Body and the manufacturer, with an obligation to disclose them to the Construction Products Regulator, given reasonable cause.

11.5 Government, the Approved Bodies and industry to develop a coordinated and standardised suite of documentation, comprising certification and classification report (where relevant), Declaration of Performance and product information, to be adopted by all Approved Bodies and manufacturers. Any variations made necessary by the specifics of the products should then also be standardised, per product or family of products.

30.6 Declaration of Performance

A key objective of the move to accelerate digitalisation of the industry is to ensure that the information that the multitude of people involved in the design, construction and use of a building need is accurate and up-to-date - "*the single source of truth*". So, for construction products, the Declaration of Performance must represent a critical point at which truthful information about those products starts to be gathered for transmission to subsequent dutyholders.

There should consequently be a sense of duty on the part of product manufacturers making the declaration. It should be a boardroom decision, and the leaders of the business should be the first people to check what everybody thereafter has to know, namely:

- that every claim that is made is verifiable;
- that every claim made of a safety-critical product that is relevant to its safety has been independently verified;
- that any qualifications or conditions attached to that claim are made clear in plain language;
- that if those qualifications and conditions are observed, the product will perform as declared; and
- that the manufacturer undertakes to assure constancy of performance, maintaining factory production control and re-testing as necessary.

A Declaration of Performance is not (and should not be) a marketing document - but it does set the factual basis upon which marketing claims should be founded. It is also important because this is the point at which product information should start its journey down the golden thread.

Given the consequences of the failure of products to perform as they should, and particularly products upon which safety-critical construction depends, any knowing or careless misrepresentation, obfuscation or relevant omission must be an offence, on the principle that misconduct must not only have consequences but must be seen to have consequences.

In the interests of clarity, and for the convenience of those who must be able to depend upon information contained in Declarations of Performance, their format should be standardised to the greatest workable degree, as Recommendation 11.5 above. This principle does, however, need testing either product by product or by families of product, to make sure that a typical declaration can include all of the necessary information, without 90% of the documentation being irrelevant or empty.

One result of removing non-safety-critical products from the AVCP and UKCA marking system would, in the absence of a proposal to add them back, be a loss of the Declarations of Performance required as the final step towards marking. A remedy for that might be to require a Declaration of Performance, with all related product information, to be published for *every* product

intended for use in construction. This would be consistent with recognising the critical importance of reliable information to downstream dutyholders, and with the concept of a duty of truthfulness (see section 25.7 above). It would also serve the objective stated in the Government response to the scrutiny report of taking new enforcement powers "*to improve the reliability of the performance information provided by manufacturers in the mandatory declaration of performance*"[136].

The proposition would, however, need to be appraised against a number of tests.

The first is whether it would be regarded (by the WTO and/or the EU, as appropriate) as a technical barrier to trade.

The second test is proportionality. This would need to be considered product by product, but the administrative burden involved in making a declaration might well be no greater than that involved in assessing the risk of liability for a breach of a general duty of safety; and a duty to make a clear, properly informed and truthful declaration will almost certainly be easier both to honour and to recognise in the breach.

The final question is what the declaration can be made against if there is no standard for a product and no recognised test. That is, however, a question that will confront all manufacturers in seeking to comply with a general safety requirement, and to the extent that they consider product and testing standards necessary to demonstrate reasonable skill and care in complying with that requirement, then the standards will presumably follow.

"*No Performance Determined*"

There is an option available to manufacturers to put "*no performance determined*" next to some of the essential characteristics covered by the standard for the product, as long as at least one essential characteristic has been assessed and declared.

On the face of it, this sounds like a weakness in the system, rather calling into question the meaning of the word "essential", and this is particularly true given that for some products there can be a number of essential characteristics, measured (currently) at up to four different levels of the AVCP system – and potentially, in the future, at all five levels. It would therefore be easy to say that the practice should be disallowed, and considerable disquiet about it has been expressed to us in consultation.

However, the apparent anomaly relates to the intended use of the product, whether that relates to its intended function or the circumstances of its use. If a certain characteristic is not relevant (or "essential") to that use, then there should be no requirement to match that aspect of the performance standard – although marking the declaration "*No performance offered*" would be a better way of expressing it.

It is another example of how complicated things become when seeking to apply a single system to thousands of different products; and it would be no favour to the industry's customers to require manufacturers to endow their products with qualities (and therefore cost) that are not required, simply because many different uses are contemplated in the relevant standard.

Two issues do remain, however:-

- first, the risk of customers being misled by apparently similar products with different levels of performance being on the market, as a consequence of which they get put to uses not contemplated or confirmed in the conformity assessment process; and
- secondly, the potential for manufacturers to use the NPD advice to get their product onto the market, and then allow customers to be misled or mistaken.

The response to both problems lies in a combination of clarity on the Declaration of Performance (as above), the quality of product information, the scrupulous use of a reliable labelling system - and, as for all, an effective surveillance and enforcement regime.

[136] *Building Safety Bill; Government response to pre-legislative scrutiny by the Housing, Communities and Local Government Select Committee*, July 2021, para 153.

While product manufacturers may not know what the final destination of their product might be, and responsibility for specifying and using a product that is fit for purpose must rest with the downstream dutyholders, manufacturers cannot claim to be completely unaware of foreseeable uses, and this creates a duty of its own: that those dutyholders must be able to rely upon the performance claimed for a product, and upon having all the information necessary to make a judgement about its fitness for purpose for the particular application that is contemplated. This is particularly important where a product may be suitable for use in one situation, but not in another (most obviously higher-risk buildings). In those circumstances there is a particular case for requiring the product to be labelled, colour-coded or otherwise marked in a way that makes obvious whether it is suitable for a particular application.

In addition, the exercise to consider the allocation of products/essential characteristics to particular AVCP system levels should include looking at the opportunities for abuse where products have multiple characteristics, or where a product is intended to be used in a way not contemplated in the designated standard (when it is effectively out of the scope of the CPR, and there is no requirement to demonstrate conformity).

Our recommendation is that Government and industry explore the practicality and proportionality of requiring a Declaration of Performance for all products. However, because this proposal would be so far-reaching, and would impact differently on the whole range of thousands of construction products, the recommendation is particularly subject to the conduct of a wide-ranging consultation process with those who would be affected.

In addition, wherever a Declaration of Performance is required, it too should form part of the suite of standard documentation proposed in recommendation 11.1, with clear links to the Approved Body documentation that supports the performance claims made in the declaration.

Recommendation 12, re the Declaration of Performance: to provide verified and consistent product information to all of those relying on the assessment process

12.1 Government and industry to explore the practicality and proportionality of requiring a Declaration of Performance for all products.

31 Technical Assessments

With effect from the end of the EU exit Transition Period on 31 December 2020, there has been no practical system in place for the issue of Technical Assessments, and consequently no route to marking for innovative or other products for which there is no designated standard. The regulatory framework for the creation of Technical Assessments does exist, by virtue of the CPR as retained in EU law; and Schedule 11 of the Building Safety Act provides powers for the amendment of that framework, including the persons and procedures by which they are to be issued, provisions relating to the designation and functions of assessment bodies, and the contents of assessment documents.

In the meantime, UKAS continues to accredit and assess Approved Bodies providing conformity assessment services against ETAGs and EADs developed in the EU under the auspices of EOTA.

However, there still needs to be an agreed practical structure through which policy intent can be delivered in the UK.

The future of technical assessments will depend upon a number of factors, including:-

- reaching agreement with EOTA for the use of existing ETAGs/EADs in the UK;
- the extent to which UK TABs adopt pre-exit ETAGs/EADs as the basis of UKADs, as permitted under The Construction Products (Amendment etc.) (EU Exit) Regulations 2019;
- whether future EADs, published after exit, will be considered individually for adoption;

- whether the UK Technical Assessment Bodies will have the resources to develop new UKADs and, if so, whether they would also have the inclination to do so, or whether that would need to become a legal obligation;
- the future of voluntary third-party certification;
- the purpose of UKCA marking.

The particular significance of the last of these is that the principal practical difference between voluntary third-party certification schemes and technical assessment is the ability, following technical assessment, to mark the product and place it on the market on the basis of a Declaration of Performance. This engages all the consequences of marking in terms of compliance, surveillance and enforcement. Customers should therefore derive some comfort from knowing that the process is covered by the machinery of the CPR and is formally regulated.

Although there does not appear to be any formal data, extrapolation by one TAB on the basis of its own business would suggest that there are about 1,000 technical assessments issued in the UK annually. So the number is not trivial, and for those who want to mark their product, technical assessment is the only means of doing so for an innovative product for which there is no designated standard. The question is therefore how attractive the route to market would remain if it does not open up markets beyond Great Britain, and also if voluntary third-party certification were to become a universally respected endorsement.

Whatever the outcome of that might be, unless voluntary certification can be strengthened to the extent that the rigour of technical assessment is matched, then the voluntary route should not be available for safety-critical products – and will not be available under current proposals, which will call for specific properties of the product to be assessed under the AVCP process against a "safety-critical standard". However, as development of a new product standard is a lengthy process, and reliance upon the general safety requirement in the interim may not offer adequate protection, an alternative could be the use of technical assessment as a stop-gap measure, but to a process that ensures more rigour, and to include assessment at the highest practical level of the AVCP system.

Again, this does require the criteria for a product being designated as safety-critical to be sufficiently clear to be able to direct a new product towards technical assessment as a requirement before it can be placed on the market. It also requires the criteria for use in technical assessment to be backed to the greatest possible degree by scientific evidence, and for it to be made clear in UK Assessment Documents where there are risks in the use of the product, notwithstanding the issue of the Assessment Document (for example, where there is reliance upon expert opinion rather than test evidence), and how those risks should be managed. Claiming a product is innovative should not provide it with a short cut to the market that by-passes measures that would otherwise apply to keep products, buildings and people safe

Recommendation 13, re Technical Assessment: to provide a route to market for innovative products

13.1 Government and the UK Technical Assessment Bodies to resolve the future of the Technical Assessment route to product certification and its relationship to UKCA marking.

13.2 In particular, Government and the UK TABS to establish the practicality and sustainability of providing a route to market for safety-critical products for which there is no applicable standard.

32 Voluntary Third-Party Certification

As noted above, research commissioned by DLUHC suggests that some 40-50% of firms that are manufacturing products that are not covered by the CPR nonetheless subscribe to voluntary third-party certification schemes. It is therefore a considerable influence in the market.

However, although the level of scrutiny provided by the best voluntary schemes may be higher than the regulatory AVCP process, the form and content of such schemes is variable, as is the degree of rigour and independence of oversight - and consequently the trust that the market might want to place in products covered by the schemes.

In light of this, it was a recommendation of the Select Committee that Government should establish "*an independent and unified system of third-party certification in order to introduce greater transparency and rigour into the regulation of construction products*" [137]; and in its response to the Scrutiny report, Government stated that it was "*exploring with industry a future voluntary framework to strengthen the quality of third party certification*".

We have found three products of that exploration:-
(1) A paper produced by a collaboration between CABs, proposing minimum standards for a third-party certification scheme for fire doors. This was apparently produced in liaison with DLUHC and UKAS and the final version was discussed in a workshop in March 2019, where developing it as an umbrella standard for construction products was proposed.
(2) A February 2020 paper produced by DLUHC on voluntary requirements for third-party certification schemes for discussion at a BRAC Accreditation Working Group which met (only once, we believe) in April 2020.
(3) In the interim, the Government consultation launched in June 2019 proposed a set of high level "umbrella" criteria for third-party schemes[138].

Although coming at things from slightly different directions (one taking the AVCP process as a baseline, the other considering adaptation of the Competent Persons Schemes), the two papers had as their objective developing "*a framework for establishing consistent requirements for third party certification schemes*". We have not been able to find any record of anything happening subsequent to April 2020, which we understand to be the consequence of a re-ordering of priorities and resources. However, the two exercises taken together do illustrate that it should be possible to identify the bones of a framework and the high level principles that would need to be followed in order to establish and underpin credibility in such a scheme, although there will be a lot of detail involved in developing those principles into product-specific schemes.

These high level principles would include:-
(1) clear standards which lead to the desired outcome and against which performance can be assessed;
(2) equally clear standards for the testing methodology to be adopted in certifying performance;
(3) a conformity assessment process which follows all the steps of AVCP system 1+ (so, to include continuing random sampling), save where that is rendered impractical by virtue of the nature of the product;
(4) certification documents that follow a standardised format, are clear as to the limitations of the product's certification, and are accessible and useful to building owners and residents;

[137] *Fifth report: Pre-legislative scrutiny of the Building Safety Bill, House of Commons Housing, Communities and Local Government Committee*, 24 November 2020, Recommendation 37.
[138] *Building a Safer Future: Proposals for Reform of the Building Safety Regulatory System*, June 2019 - questions 8.10-15.

(5) independence, impartiality and accreditation (to an appropriate standard) of the body responsible for the conformity assessment process, all underpinned by effective governance;

(6) accessibility to the scheme for any manufacturer that subscribes to its rules – so the scheme cannot, for example, be exclusive to members of a trade association, and should probably not be owned by them (although ISO/IEC 17065 does acknowledge that a trade association may be the scheme owner);

(7) the other safeguards that follow the conformity assessment process, including clear and honest declarations of performance, marketing and product information, and traceability;

(8) market surveillance, a means of reporting non-compliance, and a guarantee of appropriate action in response.

Once fully developed, these principles could be enshrined in a standard to be facilitated by BSI or sponsored in some other way by the industry. As an example, the International Automotive Task Force (IATF), whose members comprise nine major automotive manufacturers and five national trade associations, publish requirements for a certification scheme[139]. This builds on the ISO/IEC17000 series standard applicable to that industry, but sets out more detailed rules for certification, audit and periodic re-certification. These rules must be followed by any body seeking to be recognised for the granting of certification, and for any manufacturer seeking certification of their products under the IATF system - the only system recognised by IATF members.

The reference to standards is critical. Where there is an existing standard, then it is a case of deciding whether that standard serves the purpose. This does, however, demand specialist knowledge, and that is even truer where there is no standard; and unless a CAB limits its services to a short list of product families, the necessary knowledge and skills are unlikely to reside in a single organisation. One key distinction between technical assessment and voluntary third-party certification is the opportunity for widespread collaboration and peer review by TABs in agreeing the standard, and we would suggest that this should be replicated in the voluntary route, and that CABs should be required to declare what specialist knowledge has been brought to bear in developing standards that do not come from a recognised standards body.

Some guidance on this may be provided by the principles for considering Field of Application (see section 12.8 above), one of which calls for any judgements made beyond defined rules to be based on "*agreed expert opinion*", with the opinion being peer reviewed within a "*properly constituted forum*".

Overall, the objective must be to ensure that any route leading to a declaration of performance should be equally rigorous (whether it is the AVCP system, technical assessment or voluntary third-party certification), particularly where safety is a concern, with the only substantive difference being the degree of the involvement of the NRCP where the consequences of failure demand a higher level of regulatory oversight.

In addition, and given how frequently the problem associated with the safety function of a product relates not so much to its inherent qualities as to its installation, the promoters of product certification schemes should explore the extent to which they can be connected to effective installation and inspection schemes which have the same degree of rigour.

The other key challenge lies in providing sufficient incentive both for the establishment of schemes and for product manufacturers to sign up to them, given that, whenever an attempt is made to lift standards above the lowest common denominator, there is a perverse competitive advantage in staying outside the arrangement. The incentive to participate could come from four influences:-

[139] Automotive Certification Scheme for IATF16949, *Rules for Achieving and Maintaining IATF Recognition*, 5th edition, 1 November 2016.

- customers and specifiers insisting on the use of products that are covered by such a scheme, particularly if endorsed by Government;
- as an extension of this, a scheme becoming so established that participating in it virtually becomes a condition of trade;
- participation and compliance becoming regarded as a demonstration of manufacturers having taken reasonable skill and care in meeting the general safety requirement;
- participation becoming a route to marking, subject to the comments at section 24.3 of this report.

There is also the potential to link third-party schemes to the Code for Construction Product Information, so that accreditation to the scheme would also signal compliance with that Code, strengthening both initiatives and, if properly co-ordinated, avoiding duplication of effort (see section 33 below).

The promotion of third-party schemes and the establishment of a strong framework of principles by which they must operate is one of a number of issues which needs to be the subject of a plan made between Government and industry (see section 39 below).

There is a clear and important role for trade associations in this area - or at least for those trade associations which recognise, as they increasingly do, that a vital part of their role is to support members in providing value for money for customers and to give those customers confidence that services will be backed by some assurance of quality. They therefore bring to the process an understanding of the relevant sector of the market, access to practical experience and technical knowledge, and a membership whose products would be the subject of such schemes.

There also needs to be a realistic appraisal of the capacity of CABs to manage a significant increase in the number of third-party schemes, in addition to demand coming from more stringent requirements for the testing of safety-critical products and manufacturers commissioning additional testing in support of the general safety requirement. Any new or substantially revised schemes therefore have to have a sensible lead-in period, both to be assured that the capacity exists, and to allow manufacturers time to revise their own internal procedures (and, if necessary, product development and manufacturing processes).

Finally, in section 30.1(4) above we recommend the establishment of a national oversight (or impartiality) committee, to consider grievances raised by existing or potential customers of Conformity Assessment Bodies. We note there that the terms of reference and constitution of such a committee would need careful crafting, particularly in respect of Its relationship to UKAS. As a minimum, however, we believe that it could act in a useful intermediary function, providing an element of self-regulation in respect of voluntary third-party certification where day-to-day decisions can have a considerable impact on scheme participants' business, and where those decisions might be a matter of judgement rather than regulatory compliance. It could therefore occupy space generally left vacant by both UKAS and the Regulator, or resolve matters without the need for regulatory intervention.

In addition, the Committee could act as an advisory panel in respect of new schemes being proposed for accreditation, to confirm both the need for a scheme (particularly where different schemes address substantially the same products) and the rigour of the scheme in terms of process and technical grounding. It might therefore discourage a multiplicity of different voluntary schemes (or different approaches) being developed for similar products which could be adequately assessed under a single scheme – or at least adopting a common approach. Similarly, it could (in liaison with the Construction Products Standards Committee and BSI) act to prevent a multiplicity of standards being developed for individual schemes for products that could be adequately assessed against a single standard.

Whether the brief of the committee might extend beyond voluntary schemes is considered in Section 30.1(4).

Recommendation 14, re voluntary third-party certification: to increase the scope and ensure the rigour of third-party certification schemes

14.1 Government and industry to develop a plan to increase the operation of voluntary third-party schemes for non-safety-critical products, to include
  (1) a survey of the schemes that currently exist;
  (2) the scope and appetite for those schemes to be brought under a common set of principles designed to introduce consistency and rigour, and the agreement of those principles;
  (3) the potential for additional schemes to be brought forward, and the incentive both for creating and subscribing to them, including the possibility of Government endorsement; and
  (4) how schemes might be modified or developed from scratch, and by whom.

14.2 UKAS/ Conformity Assessment Bodies to establish a national Oversight Committee to oversee CABs' activities in the conduct of voluntary third-party certification schemes, in order to advise on the need for and quality of schemes, to respond to concerns about any evidence of a lack of impartiality in the process, and to provide a right of appeal against decisions made in that process.

33. Marketing and product information

Many of the allegations made or implied in the Public Inquiry relate to claims of false or misleading statements made in the marketing of products, rather than in the testing and assessment process itself. Examples include:-

- full details of testing outcomes being omitted from marketing literature (most egregiously by implying, in stating that a product had been tested or that the test had been terminated after a certain period, that it had passed, when it had actually failed);
- selective quotations made from test results or certificates, omitting information relevant to product performance and selection;
- products being marketed beyond the tolerances covered by Extended Application reports.

The first protection against such malpractice must be ease of access to a reliable source whereby claims made by reference to the conformity assessment process can be checked. See section 30.5.

Beyond that point, and beyond the reach of the conformity assessment process, protection lies in the existing legal framework (as section 9.3 above), and in the laws and code relating to advertising generally and in the provisions and powers set down in the Building Safety Act in particular. By virtue of clause 33 of the indicative draft regulations published with the Bill, knowingly or recklessly making a false or misleading claim as to performance of a construction product (including misleading by the omission of anything relevant to the product's performance) would become a specific offence. An enforcement authority is then entitled to require corrective measures to bring the product into conformity, to recall the product, or to prohibit or restrict its use.

Given that false claims made for products are both easier to detect and easier to prove than deficiencies in the performance of the products themselves, this would be a sensible priority for the Regulator.

In addition, however, there is a useful self-regulatory role that the industry can play in setting and enforcing standards before intervention by the Construction Products Regulator. This is recognised in the Code for Construction Product Information developed by the Construction

Products Association ("CPA")[140]. The definition of "construction product" is slightly different from the CPR (including specifically products intended for temporary use), but the Code does look to cover everything which is to be regulated by the CPR It describes the values and culture expected of participants, and sets out the characteristics of acceptable (and unacceptable) marketing practice that are capable of objective observation.

The requirements of the Code for Construction Product Information

(1) Accountability - with documented, individual sign-off.
(2) Version control - including how to confirm currency of latest version, and continuing access to previous versions.
(3) Clarity - by use of plain, accurate and unambiguous language.
(4) Validity – backed by "*demonstrable documentation*", with a requirement to make available full copies of test reports, classification documents and certification …
(5) … with all performance claims referenced back to a valid test or technical assessment where not covered by industry standard tests and the certification process.
(6) Fully descriptive - with a list of characteristics to be made available.
(7) Currency - with a process for reviewing the continuing accuracy of product information, reflecting any changes in composition or manufacture.
(8) Inclusive of information relevant to handling, installation, operation, maintenance and disposal, with a defined set of minimum requirements.
(9) Transparency as to the terms of guarantees or warranties.
(10) Contact details for a helpline offering assistance with product information.
(11) A robust training programme to ensure adequate competence and knowledge on the part of anyone conveying product information.

Tested against the allegations made or implied in the Grenfell Tower Inquiry in respect of product marketing (see Appendix 5, section 1.2), these requirements would present a major advance if properly interpreted and widely adopted. One issue is therefore how the code will accumulate authority and where it will sit long-term on the scale of self-regulation, quasi-regulation or full statutory force.

Clearly it is starting life as a voluntary, non-regulatory arrangement. Initial success will therefore be measured by the amount of buy-in from the sector; its effectiveness in deterring or removing from circulation advertising or marketing material that does not meet its requirements of clarity, accuracy, currency, accessibility and unambiguity; the effectiveness of the oversight body and its independent governance[141]; and the extent to which the sector's customers start to differentiate between manufacturers who are covered by the Code and those who are not.

In terms of its longer term future, the Code's relationship to two other initiatives has the potential either to obstruct or accelerate its progress.

The first is its relationship to third-party certification schemes. There is a risk of duplication and confusion here that could deter manufacturers from signing up and customers from requiring them to do so; but there is also scope for alignment, with the principles of the Code being embedded in third-party schemes and vice versa. As both initiatives have overlapping objectives, they should make common cause, subject only to resolving responsibility for oversight to avoid further duplication and confusion.

The second relationship of interest is between the code and the Advertising Standards Code - see section 9.3(7) above. The ASA clearly provides a valuable layer of self-regulation that sits

[140] *Code for Construction Product Information*, Version 1.0, published September 2021.
[141] Management of the published code and its verification has now been handed over from the CPA to Construction Product Information Ltd - a not-for-profit organisation with independent governance and management set up by the Considerate Constructors Scheme to administer the code.

between the advertising industry and its regulator; and although the Code for Construction Product Information covers more than advertising, we would suggest that there are many parallels in the objectives of both sets of codes, and that the comparison could extend to mirroring the ASA's role in regulating misleading marketing information.

Recommendation 15, **re marketing and the Code for Construction Product Information:** to ensure the production of clear, accurate, honest and accessible product information

15.1 Industry to work together to encourage take-up of the Code for Construction Product Information, in terms of manufacturers signing up and specifiers/procurers taking note of signing up in product selection.

15.2 Government and industry to consider whether and how the Code and third-party certification could best work together to achieve their shared objectives;

15.3 Government and industry to consider how the Code could perform a recognised self-regulatory function comparable to the Code of Advertising Practice.

34. Labelling, traceability and the golden thread

34.1 Introduction

In section 24.7 above, we express the view that, to the greatest possible extent, plans made with the industry to protect building safety should have wholesale adoption as an objective, albeit their regulatory force may not be universal. This would extend to standards for labelling and traceability, project gateways, and information flow through the life cycle of the project (effectively "the golden thread" - albeit that term is reserved for higher-risk buildings in the context of the Building Safety Act). So, whilst the language and specifics of this section of the report are those relating to buildings in scope of the higher-risk regime under the Act, it should be read with the objective of wider adoption still in mind – not least because the definition of higher-risk buildings could potentially change.

So, once a product leaves its point of manufacture (or, for imports, port of entry), three reliable lines of communication need to open:-

(1) the means of tracing the product throughout, to ensure that what is used on site matches what has been assessed for conformity;
(2) the product information required by each dutyholder, and eventually destined for the safety case where relevant;
(3) the information necessary to trace a product back to its source in the event of a need for recall at any stage in the process.

These lines of communication will require a focus on labelling and the golden thread, and how they work together.

34.2 Labelling, traceability

Labelling is clearly a critical link in maintaining the chain of custody from conformity assessment to a product's final position on site; and recommendation 7.5a of the Hackitt Review called for "*a consistent labelling and traceability system, making use of the digital technologies that are already available and learning from other sectors*".

Our understanding is that no significant work has been done on this under the auspices of the Building Safety Programme, and we therefore carry forward the intention of this recommendation, with some supplementary wording to acknowledge that, as foreseen in the Hackitt Review, changes in technology will indeed mean that labelling will be part of an increasingly sophisticated ecology, such as the use of blockchain. Some of this will be developed by the industry, following

examples from other industries such as food labelling, and some (of which BSI Identify[142] is an example, providing a digital and persistent means of tracking a uniquely identified product through its life cycle) will be developed and offered on a commercial basis. This is to be encouraged, as long as it does not lead to a divergence of practice that is unhelpful to customers.

The method of labelling will also need to recognise the nature of the product.

The reliable transfer of product information through the life cycle of a project will in turn depend upon consistent and universally understood terminology – as indeed does the digitalisation of the industry as a whole. Two pieces of work are designed to serve that objective:-

- the development of PAS 14191:2020[143], setting out further requirements for a management process for the creation and use of structured information for the built environment, building upon BS EN ISO 23386[144]; and
- the LEXiCON project[145] for the development and use of standardised product data templates and a free-to-access software platform to aid the creation, use and verification of properties forming those templates.

To complement this work, the recommendation is for a framework standard to be developed for labelling and traceability, within which requirements appropriate to each product can be incorporated in product standards. The framework standard would need to cover:

- provision of a unique product identification reference, derived from a sufficiently robust registration system to ensure traceability and (given that products in use may have a life that is longer than the product range or even the manufacturer) longevity – for example by use of the Global Trade Item Number (GTIN) system;
- the characteristics of a robust registration system;
- consistent terminology and protocols for the exchange of data;
- information to be included - whether directly on the label and/or by a link (by use of a barcode or QR code, or possibly by radio-frequency identification/RFID) to product information that is accessible elsewhere;
- how labelling is to be attached to or accompany products of different types to ensure the prescribed information reaches end users.

In considering information requirements, particular attention should also be paid to products which have critical limitations on use, or where similar products may have very different assessed levels of performance (see section 30.6 above re “No Performance Determined”).

34.3 The Golden Thread

In usage that pre-dates the establishment of the new regime for higher-risk buildings, the “golden thread” is an inspired expression to describe one of the major challenges facing the industry, and the implementation of Building Information Modelling (“BIM”) in particular: getting information relevant to the life cycle of a project to flow through and beyond the design and construction process, into the hands of those who will own, occupy, manage and maintain the building. It was used in this sense in the launch document for Government Soft Landings in 2013[146], and in the

[142] See https://identify.bsigroup.com/.
[143] See https://knowledge.bsigroup.com/products/built-environment-management-and-operation-of-interconnected-construction-data-dictionaries-specification/standard.
[144] See https://knowledge.bsigroup.com/products/building-information-modelling-and-other-digital-processes-used-in-construction-methodology-to-describe-author-and-maintain-properties-in-interconnected-data-dictionaries/standard
[145] The LEXICON project is the subject of a partnership between the CPA and the Construction Innovation Hub . See https://www.constructionproducts.org.uk/our-expertise/technical-and-regulatory-intelligence/digitalisation/lexicon. The software platform will be created by the Building Research Establishment as part of the Hub Programme.
[146] Government Soft Landings is a development of the Soft Landings process developed by BSRIA and the Useable Buildings Trust, and described by BSRIA as “*a delivery process which runs through the project, from inception to completion and beyond, to ensure all decisions made during the project are based on improving operational performance of the building and meeting the client’s expectations*”.

updated guidance published in 2021[147] and, as noted in the introduction to this section of the report, preserving the link between the design intentions and operational outcomes of a project is a universal requirement.

The interim and final reports of the Hackitt Review stressed the particular relevance of this to higher-risk building projects, and the need to ensure that the original design intent is preserved and that changes are managed through a formal process.

A more precise definition of the golden thread mandated for higher-risk buildings has been the subject of extensive engagement between Government and industry, led by the Building Regulations Advisory Committee. Under this definition, the golden thread is "*both the information about a building that allows someone to understand a building and keep it safe* [and] *the information management to ensure the information is accurate, easily understandable, can be accessed by those who need it and is up to date"*.[148]

Dutyholders (those who commission building work or participate in the design and construction process) and Accountable Persons (those responsible for managing structural and fire safety in buildings when they are occupied) must create and maintain this golden thread throughout a building's life cycle, using digital tools and systems, so that those responsible for ensuring that their building is safe, both now and in the future, "*have the right information at the right time*" and can refer to "*a single source of truth*" (BRAC Report, paras 3.4 and 3.5).

The BRAC report notes that the specific requirements for the golden thread, including the details of the information to be stored and how it must be kept, will be set out in secondary legislation, and that Government will publish these regulations and additional guidance in draft for consultation at a later stage (para 2.11-12).

Taking that detail forward now needs to form part of an agreed work programme, in which the industry should lead the way, on how to ensure the requirements set out in secondary legislation can be delivered and implemented in practice. This work should include setting protocols and digital standards by which data can be conveyed along the golden thread and which

- to the greatest possible degree, are those being developed by industry for the adoption of digital information management more generally;
- are agnostic as to proprietary system, balancing convergence of practice with opportunities for innovation;
- aid transfer of relevant data from assessment documentation (test and classification reports, certificates, Declarations of Performance and product information) into the golden thread;
- filter information so that the material requirements of successive dutyholders are readily identifiable (without loss of the totality of information required for audit trail and record keeping), and in particular to prevent handover documentation being so voluminous (even if digital and machine readable) that it overwhelms the occupier and obscures the information that is most required; and
- similarly, make information required for the gateway process readily identifiable.

Beyond the golden thread, and building upon it, there is enormous potential in digitalisation, not just for managing data but also for actively processing it - for example in computer models self-checking for compliance with Building Regulations. It should not, however, be underestimated just how much work is involved in realising that potential. It is more than ten years since the announcement of the mandate requiring all Government projects to be delivered via Building Information Modelling, and adoption is still patchy, and both the technology and its application are

[147] "*Government Soft Landings . is . fundamental to maintaining the 'golden thread' of a facility's purpose by aligning the interests of those who commission, design and construct with those who use and maintain*." Dr David Hancock, Construction Director, Infrastructure and Projects Authority, Foreword to Government Soft Landings: Revised Guidance for the Public Sector, published by the UK BIM Framework, May 2021.
[148] Building Regulations Advisory Committee: Golden Thread Report, 21 July 2021, para 2.2.

under continual development. The requirements of the golden thread for higher-risk buildings therefore need to be prioritised, without going down a developmental cul-de-sac.

The need to keep the golden thread updated for changes made as the project moves through its life cycle, and most particularly after it has passed through gateways, is obviously about more than keeping track of the information. Too frequently, all the care taken to assess a product and assure its performance can be destroyed in a moment when a product is substituted with little or no thought as to whether it will genuinely deliver the same performance.

So, in addition to Hackitt Review recommendation 2.9 ("*There should be a clearer, statutory change control process that places requirements on the relevant dutyholder to notify the regulators of significant changes post-Full Plans sign-off*"), there needs to be a statutory mechanism that makes clear where responsibility lies when a product specified by one dutyholder is changed by another. Otherwise the clarity of accountability that is a guiding principle of the Hackitt Review is compromised or lost, notwithstanding the duty of the Principal Designer and Principal Contractor to co-operate, co-ordinate their work and share information.

Recommendation 16, re labelling, traceability and the golden thread: to develop standards and protocols for product labelling and traceability, the management of information via the golden thread, and the control of product substitution

16.1 Government and industry to develop a framework standard for a consistent labelling and traceability system for products, within which methods appropriate to the nature of each product can be developed and incorporated in product standards.

16.2 Re the golden thread, Government and industry to:

(1) set digital standards that, to the greatest possible degree, conform to standards to be adopted for wider use in the digitalisation of the construction industry;

(2) establish protocols by which product information can be introduced into the golden thread and filtered so that it meets the needs of successive dutyholders without overwhelming them with extraneous material which obscures the essential information;

(3) make provision within those protocols for the transfer and protection of information necessary for retrospective traceability;

(4) consider those protocols in the context of wider information needs through the supply chain and the product/building life cycle, so that the gathering of information required for the golden thread can begin at any time from the product being made available on the market.

16.3 Government to develop statutory mechanisms to manage product substitution and make clear where responsibility for all the implications of substitution falls.

35. Competence

No process will lead on to success unless every step is executed with the necessary level of competence; and the evidence is that only a small proportion of problems occurring on construction projects are attributable to defective products, as opposed to the way they are used and installed[149].

Subsequent to the Hackitt Review, the critical issue of competence has been tackled by the industry through a Competence Steering Group, overseeing twelve working groups charged with looking at different aspects of building safety. The Steering Group issued its final report in October 2020[150], but the work continues.

[149] *Building Safety Bill - Impact Assessment*, published 5 July 2021, Annex A, para 37: "*Research has shown that 21% of construction spend is attributable to errors, with 1.49% of errors being caused by product failures*."

[150] *Setting The Bar - A New Competence Regime For Building A Safer Future*, The Final Report of the Competence Steering Group for Building a Safer Future, October 2020.

That work, and the recommendations of UKAS in the exchanges with the Secretary of State in 2017 and 2021, increasingly point to a growing series of accredited competencies for those engaged both in product manufacture, in work on site and in design and supervisory services. Competence is therefore being built piecemeal, from the bottom up. Certainly every piece is required, so that the competences that outcome-based regulation assumes, and which the industry's clients and all building users depend upon, are built against a clear understanding of what knowledge, skill and experience adds up to the competence that can be expected of those professing to possess it.

For competences relating to products, the relevant industry working group is developing proposals[151] for an industry standard that covers the criteria that should be achieved by everyone responsible for any aspect of construction products - whether in their design, production or marketing; in selecting, specifying or incorporating them in designs; in procuring, handling or installing them; in maintaining or using them in completed works; or in carrying out any regulatory functions relating to products.

Rather than relying entirely on this bottom-up process, however, an alternative (or complementary) approach would be to license principal contractors, placing their ability to operate in the market (or in a defined part of the market) in jeopardy. They would then have a more direct incentive to "pull" competence up through the supply chain, and to implement an appropriate level of supervision and inspection, than might develop from their duties as Principal Contractor under the Building Safety Act. The way that they would assure any processes believed important to the creation of safe buildings (whether regulatory or advisory) would then be part of the qualification for licensing.

The licensing of main contractors is practised in many countries of the world (in Germany, Denmark, the Netherlands, certain Australian and USA states, for example), by reference to criteria such as academic or trade qualifications, management ability, financial health, insurance/bonding requirements etc.

The subject has quite possibly been studied before by or on behalf of Government and beyond the domestic sector, but the special consideration being given to higher-risk buildings provides an opportunity to consider how well it might work if the ability to act as principal contractor on those buildings were to be limited to those who are suitably qualified.

We therefore recommend that such a review is conducted, by reference to international experience, considering whether and what benefits have been secured where such schemes are operated (recognising that there have undeniably been building failures in countries where contractors are licensed); and whether any such benefits come at a proportional cost, given that any barrier to entry can be expected to have some impact on contractors' pricing.

Recommendation 17, re competence: to address the particular competence requirements for complex, higher-risk buildings

17.1 Government to review the effectiveness of main contractor licensing schemes elsewhere in the world, lessons learned and the implications of introducing such a scheme in the UK.

17.2 More specifically, Government to consider licensing as a formalisation of the competency requirements of a Principal Contractor on higher-risk buildings.

[151] Post-dated footnote: Competence Steering Group, Working Group 12 - Construction Products Competence has subsequently published its proposals in a white paper for consultation. See https://www.constructionproducts.org.uk/publications/technical-and-regulatory/built-environment-proposed-construction-product-competence-standard-white-paper/

36. Market surveillance and enforcement

36.1 Introduction

"*Effective enforcement … makes sure that those who may be tempted to test and exceed the boundaries of the law fear they will be challenged and, if warranted, punished. It helps achieve a level playing field for business, ensuring that the vast majority of firms that play by the rules are not undercut by those few who do not*." These words from a DBT consultation paper[152] on consumer law enforcement are just as valid for product regulation (and, indeed, building regulations more generally).

By contrast, after a decade or more of a presumption against increasing the burden of regulation, and limited attention being paid to both surveillance and enforcement of the CPR in general, those firms that do not play by the rules may well have felt that they could do so without consequence.

Although there is no centralised register of prosecutions by local authority regulators, as far as we have been able to ascertain there have been no prosecutions under the Construction Products Regulations since they were first introduced. Some issues will have been resolved by Trading Standards without resorting to legal proceedings, but since they were brought in there has been no conspicuous enforcement of the regulations to act as a deterrent. Whilst regulation and deterrence is not the complete answer to driving a change in behaviour, it has an important part to play – but only if it is enforced.

As a consequence of the lack or surveillance and enforcement, we have been able to find very little data, either pre-dating the Grenfell Tower Inquiry or since, about products which are launched on the market without proper confirmation that they comply with the necessary standards, or which have been marketed dishonestly.

The most potent data therefore comes from the Inquiry, and from the evidence heard in Module 2 in particular; and it would be optimistic to believe that there are no other products in general use in construction which fell short of the requirements of conformity to standards, proper assessment of that conformity, honest claims made in marketing and fitness for purpose for their intended use. However, it should not be necessary to establish how widespread malpractice might be in order to agree that it should not happen at all, and that effective and proportionate measures should be put in place to prevent it happening.

Nor do we believe that the implementation of such measures will be controversial within the industry, as long as they are both effective and proportionate. In our own consultations, we have heard more than once the plea "*try enforcement first*"; and the great majority of businesses that want to play by the rules have no tolerance for the minority which does not have any regard either for the rules or for the consequences of such disregard.

It is therefore important that the statutory measures to counter malpractice and the structure designed for surveillance and enforcement are both effective and seen to be so.

The new structure proposed for regulatory governance and delivery is set out below.

36.2 Governance

Governance will be through three Departments of State, with delivery split between two new regulators - the Building Safety Regulator ("BSR") and the National Regulator for Construction Products ("NRCP"), and two existing local authority functions, Building Control and Trading Standards.

[152] *Reforming Competition and Consumer Policy*, a DBT (then BEIS) consultation paper, 20 July 2021.

The Home Office will retain responsibility for fire brigade services, and for The Fire Safety Act 2021 which will place new fire safety obligations on Responsible Persons – a redefined term that will include some leaseholders, building owners and managers.

The Department for Levelling Up, Housing and Communities ("DLUHC") has taken the Building Safety Act through Parliament, and will

- continue to be responsible for the Building Regulations and associated guidance;
- sponsor the BSR, and receive advice from the BSR on aspects of the regulatory system, including the scope of buildings covered by the BSR;
- continue to be the policy lead for the Construction Products Regulations and construction products that fall under the scope of the Building Safety Act;
- provide funding for the NRCP, who will report to the Secretary of State;
- hold responsibility for designating and commissioning standards (with the Construction Products Standards Committee advising specifically on product standards – those tied into the Building Regulations will need to be handled through a separate route).

The Department for Business & Trade ("DBT") incorporates the Office for Product Safety and Standards, which will, working on behalf of the Secretary of State DLUHC, provide the functions of the NRCP. DBT will also continue to be responsible for wider construction policy, with a Minister of State at the Department co-chairing the Construction Leadership Council which provides sector leadership to the construction industry. It will also continue to sponsor BSI and UKAS.

36.3 Regulatory delivery

The new **Building Safety Regulator** ("BSR") will be an operational arm of the Health and Safety Executive, a non-departmental public body sponsored by the Department for Work and Pensions but reporting in respect of its building functions to the Secretary of State in DLUHC. The BSR will be responsible for:

- implementing much of the Building Safety Act and its associated regulations, with core objectives of securing the safety of people in or about buildings in relation to risks arising from buildings, and improving the standard of buildings;
- enforcing safety requirements for occupied higher-risk buildings;
- oversight of the building regulatory system, including providing expert advice to Ministers (who will, with the abolition of the Building Regulations Advisory Committee, no longer have direct independent advice on matters of building regulations and standards for the design and construction of buildings);
- oversight of the performance and standards of building control;
- improving the competence of building control inspectors, including through a new registration system;
- acting as the building control authority for higher-risk buildings and regulator of dutyholders across building work in or on higher-risk buildings, as well as delivering a new regulatory regime for higher-risk buildings in occupation.

The BSR will be advised on the majority of its functions by a statutory Building Advisory Committee. The BSR will also be advised on matters connected to industry competence by a statutory Industry Competence Committee; and will receive advice from a Residents' Panel, in particular about the regulation of higher-risk buildings in occupation.[153]

[153] Post-dated footnote: the inaugural meeting of the Building Advisory Committee was held in December 2022. The Industry Competence Committee and Residents' Panel both currently support the Building Safety Regulator in an interim, non-statutory form and will be formally constituted under the Building Safety Act in the course of 2023. See https://press.hse.gov.uk/2022/12/20/the-building-advisory-committee-inaugural-meeting/, 20 December 2022.

Local authorities will continue to enforce the Building Regulations, and regulate dutyholders for building work other than for work on higher-risk buildings.

The new **National Regulator for Construction Products** ("NRCP") being established within OPSS will take on the oversight of construction products and will report to the Secretary of State in respect of its functions. The NRCP will oversee the strengthened regulatory framework for construction products, as outlined in section 21.3 above.

Local authorities will, under the auspices of OPSS/NRCP, continue to regulate local construction products issues, but will be able to turn to the NRCP for support as required[154].

This structure is illustrated in figure 5 for comparison with the *status quo ante* (see figure 4 in section 14 above).

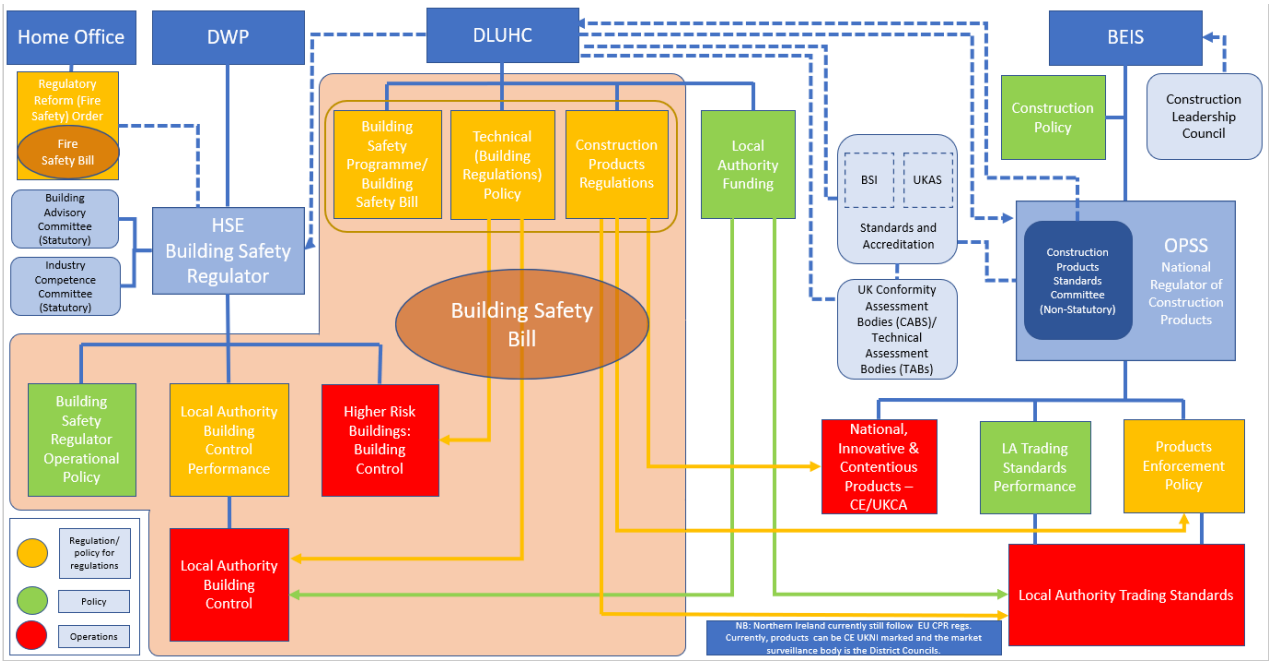

Figure 5: Future regulatory/advisory system map for construction (England only)

This structure certainly does not appear to meet the objective of Dame Judith in creating a "*single, streamlined, regulatory route for the provision of building control*".

Given the potential for confusion and miscommunication in this dispersed structure, there are presumably powerful reasons why this is considered to be the best response to this "once in a lifetime" opportunity of reorganising the structure by which the built environment is regulated; but there is a web of relationships involved which need careful coordination (both structurally and on a day-to-day basis) if the new regime is to be effective. Apart from connections between DLUHC (as policy lead), and HSE and OPSS , this also includes connections between:-

- HSE and Building Control;
- OPSS and Trading standards (and Environmental Health in Northern Ireland);

[154] Post-dated footnote: subsequent to the base date of this report, the Government has introduced secondary legislation, *The Construction Product (Amendment) Regulations 2022*, which will allow OPSS/ NRCP to access the full range of powers available to enforce the existing Construction Products Regulations, in the interests of more effective enforcement, complaint investigation and market surveillance, with national oversight in place to cover construction product safety as soon as possible. Requirements that businesses must meet under the Construction Products Regulations will not change.

- Building Control and Trading Standards at local level, to create continuity of surveillance and feedback through the life cycle of the product; and
- advisory committees (Building Advisory Committee, Construction Products Standards Committee, Industry Competence Committee) and their relationships with their sponsors and each other.

There is therefore a great deal of "joining up" to do, and it needs to be clear who is responsible for this. In particular, and given that defects in products are most likely to be revealed when they are put to use, there needs to be a bridge between product regulation and building control at both local and national level. This will be both critical and challenging as there are so many risks of a mis-step as products progress into assemblies and then into completed work; and it is a particular issue for the surveillance of offsite construction, where there are questions as to who is responsible for surveillance and how gateway 2 will operate - see section 29.3(4) above.

The continuity between product regulation and building control is important not just for surveillance and enforcement, but also for feedback. The availability of an accessible and widely disseminated database of products that do not meet their performance claims, or which cannot be regarded as safe (as defined in the legislation), and their removal from the market, is critical to the central objective of making available the information needed to design, construct and operate safe buildings. This (and indeed the evolving understanding of what might be regarded as safe or safety-critical) depends upon constant feedback.

Given the very low level of enforcement to date, there is also a considerable job of capacity building within this structure. From discussions with the Association of Chief Trading Standards Officers (ACTSO), it is clear that they do not feel that they currently have the skills and resources necessary to take on an expanded role, and there is little enthusiasm for doing so given this lack of experience and the competing priorities of local authorities. Reliance upon local authorities to provide adequate resources to ensure compliance with the CPR must also have been a factor in inadequate enforcement to date.

The critical importance of an effective, properly resourced regime for surveillance and enforcement is, however. an essential accompaniment to an effective regime for the assessment and regulation of products. Certainly industry needs to provide leadership to aid and support compliance with regulatory requirements or corrective action, and to work closely with the both the Building Safety and Construction Products Regulators; but it also needs to be clear that non-compliance will have consequences.

Recommendation 18, re surveillance and enforcement: to strengthen and support the surveillance and enforcement regime, to ensure fair competition and the conformity of products on the market

18.1 Government to ensure active and effective enforcement under the new regulatory regime for products backed by adequate and trained resources, communicated with such clarity as to persuade manufacturers and others in the supply chain that breaches of duty will have real consequences, and that competition (including competition from imports) will be conducted on a level playing field.

18.2 Government to develop a sector-specific and publicly accessible database that lists products known not to comply with the conditions for being placed on the market, or for which claims are made that cannot be verified.

18.3 Industry and its trade associations to provide leadership for manufacturers to aid and support compliance with regulatory requirements, and to work closely with the Regulator with the same objective and in taking corrective action where required.

37 Lessons from overseas

It is beyond the terms of reference of this review to conduct a full review of the approach taken in other countries towards construction product regulation, but on the basis of previous reviews[155] it is possible to summarise a number of common themes in systems as they currently exist or in proposals for improvement. These generally track the life cycle of products (see section 23 above) and include:-

(1) the appointment of a regulator with the authority to enforce regulations;
(2) mandatory conformity assessment/certification for certain defined products;
(3) accreditation and oversight of Conformity Assessment Bodies;
(4) publication of test results, often including failed tests;
(5) publication of certificates confirming conformity and including prescribed product safety information;
(6) appropriate standards for products, product testing, assessment and certification;
(7) an obligation on manufacturers to make an honest, verifiable declaration of the performance of their products;
(8) independent scrutiny/peer review of declarations of performance;
(9) an obligation on manufacturers, distributors etc to supply products that are both compliant and safe;
(10) a parallel obligation to provide product safety information in plain language, including how the product is to be installed and maintained;
(11) standards for labelling to ensure traceability;
(12) type and batch testing during series production;
(13) sanctions for non-compliance, and the removal of unsafe products from the market.

There are then some outlier ideas, including:-
(1) manufacturers being required to pass an exam to confirm that FPC processes comply with national standards (Japan);
(2) an independent and impartial research body, funded by an industry levy, to address issues of industry improvement, including (for example) the durability of materials (*BRANZ*, New Zealand);
(3) products for which there is no national standard requiring certification by the Government before they can be placed on the market (Japan).

With these exceptions, though (and our thoughts in relation to access to independent and impartial research follow in section 39.2), these principles are all fairly well established across developed economies with a regulated construction industry, all learning from each other, particularly in response to major incidents; and differences are generally matters of nuance in the practical application of the principles or in striking a balance between competing principles (see section 24).

No specific recommendations flow from this save to note that, irrespective of different jurisdictions, international comparisons highlight that the risks and challenges are much the same. So it is always worth keeping communication lines open to learn from international experience - both in terms of direct feedback of the lessons from product or building failures, and also the experience of measures designed to keep buildings and their occupants safe. The principles are also relevant to agreeing terms of international trade.

38 Government procurement

[155] See, for example, chapter 10 of *Building a Safer Future Independent Review of Building Regulations and Fire Safety*, Final Report, May 2018, and the Australian Building Codes Board draft national building product assurance framework - a response to the Building Confidence report, discussion paper dated 2021, and the sources quoted therein.

It is a common challenge to Government that if it advocates to the industry and its clients that it should do things in a certain way, then it should follow its own advice in respect of public procurement policy.

It is a fair challenge.

However, neither private nor public sector should set criteria for procurement decisions that are not capable of clear definition, verification and measurement, so that genuine differentiations of offer can be identified and valued.

That said, there are three possible candidates for inclusion in a balanced scorecard of procurement criteria. These are:-
(1) The ability of a bidder (contractor or project team) to demonstrate how it will deliver a building that can be occupied and operated safely, particularly at gateway 3 for higher-risk buildings. This is comparable to the line already taken by the Cabinet Office in respect of carbon reduction plans[156].
(2) The demonstration by a bidder of a culture that displays the desired qualities - signalled by a commitment to verification under the *Building a Safer Future Charter*[157], for example.
(3) Similarly, bidders committing to specifying and procuring products from suppliers who have committed to adhere to the Code for Construction Product Information.

In the latter two cases, relevance to winning work would be a positive incentive to make the commitment.

In all three cases, however, there is work to be done before they meet - and are shown to meet - the conditions of definition, verification and measurement. The recommendations are therefore framed accordingly.

In addition, there is an opportunity to embed in public sector frameworks shared programmes that raise both the awareness and implementation of measures and behaviours designed to increase building safety.[158]

Recommendation 19, re public procurement: for Government to use public sector buying power as an incentive to adopt best practice in securing product and building safety
19.1 Government to declare whether the following could be included in the selection criteria for Government procurement, subject to meeting certain conditions; and to agree those conditions with the industry, together with the evidence required to demonstrate that they have been satisfied and a programme for the exercise:
(1) bidders demonstrating how they propose to produce safe building outcomes, approaching the building as a system;
(2) bidders committing to specify and procure products from suppliers who are committed to complying with the Code for Construction Product Information; and
(3) bidders committing to cultural behaviours compliant with the *Building A Safer Future Charter* and to verification.
19.2 Government to make as a condition of its funding to local authorities, executive agencies and other arm's length bodies the use of the same criteria in their procurement processes for construction services.

[156] Procurement Policy Note 06/21*: Taking account of Carbon Reduction Plans in the procurement of major government contracts*, published 5 June 2021, updated 27 August 2021.
[157] See https://buildingasaferfuture.org.uk/
[158] Post-dated footnote: in January 2022 the Government published *Guidance on Collaborative Procurement for Design and Construction to Support Building Safety*, DLUHC, 10 January 2022 – see https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1046501/Guidance_on_collaborative_procurement_for_design_and_construction_to_support_building_safety.pdf.

39 Engagement with the industry

39.1 Generally

Apart from the work on competence, and the development of the Code for Construction Product Information, a major focus of the engagement of Government with the industry has been around the issue of culture. The *Building A Safer Future Charter* has now been launched, and it is for the industry and its leadership to demonstrate the right culture and values by example; to publicise the charter and ensure that it has sufficient incentives for businesses of every kind across the industry to sign up to its commitments when there are so many other commercial pressures crowding boardrooms; to ensure that those commitments will deliver the desired result of safer buildings; to put in place effective governance of the charter and guarantee its independence[159]; and to monitor, measure and publish progress.

Culture is certainly a powerful force in both an industry and its businesses, but culture change is slow and struggles to reach those who most need it. It consequently cannot be relied upon to remove frailties and the risk of failures quickly or comprehensively. Bringing about change is also difficult enough within a single organisation. To reform a whole industry is exponentially more difficult, and particularly an industry which is as fragmented as construction - to the extent that it can hardly be identified as a single industry at all. Certainly it will not be achieved by exhortation alone, and still less by remonstration. It requires incentives to be aligned (including confidence that bad actors will be removed from the market), and plans to be set against a realistic appreciation of the particular characteristics of the sector and its trading model, or against equally realistic plans to change them. It is not, therefore, a change that the industry, however it might be defined, can bring about on its own. It requires the active participation of both the supply and demand sides, of the full depth of the supply chain, and of Government – as the sponsor, principal client and regulator of the industry; and it requires collective leadership by all of those constituencies, holding each other to account.

In addition, we have referred throughout this report to practical actions required to give effect to the objectives of the Building Safety Act. Many of these are addressed either to "*the industry*" or "*to Government and the industry*", but the distinction should not be regarded as binary. The imperative is for Government (directly, and/or via the Regulators, as appropriate) and industry to work together to ensure both that the new regime works effectively, and that obligations that have always existed under previous regimes work more effectively than they have to date.

The first action in moving towards this is for Government and the industry to convert this general intention into a practical plan. The change that is required should be regarded as a project, and it needs the preconditions to a successful project to be put in place: an agreed vision of scope and purpose; engagement of the right people; a programme with realistic milestones; an equally realistic appraisal of the resources required, with the necessary funding; and leadership.

In terms of purpose, we have already summarised that as restoring product assessment and the data derived from it as a trusted public good.

The scope is also covered broadly in this report, and in summary comprises:-

(1) an awareness/education programme to reconnect the world of design and construction to the world of standards, testing and certification, and to promote awareness of the process by which products are regulated and assessed for conformity and the critical role products can play in building safety;
(2) coordinating an understanding of the current state of the body of knowledge re fire safety, and proposing practical plans for a better and more accessible database;

[159] Leadership and development of the Charter is now the responsibility of Building a Safer Future Ltd – a not-for-profit organisation with independent governance set up by the Considerate Constructors Scheme.

(3) a prioritised review of product and testing standards including the development of new standards where necessary, and the elimination of flaws and inconsistencies in existing standards;
(4) the use of AI/computer modelling as alternatives or supplements to physical testing;
(5) standardised testing documentation;
(6) protocols for introducing product information into the golden thread;
(7) digital standards for the golden thread;
(8) a framework standard for product labelling;
(9) contractual mechanisms to manage product substitution, without loss of opportunities for innovation and enhanced value;
(10) developing, promoting and monitoring voluntary third-party product and competency certification/accreditation schemes;
(12) promoting and monitoring use of the Code for Practice for Product Information - on the part of both manufacturers (through participation) and designers/constructors (through differentiation in specification or procurement);
(13) developing, promoting and monitoring use of the *Building a Safer Future Charter*, so that it becomes a part of mainstream business planning;
(14) developing principles for desktop studies that extend the application of test results without loss of validity.

All of that is easily stated but there is a great deal of detail to be worked through.

Equally challenging is the need to engage the right people, and that commences with the question as to who (or what) “the industry” actually is, and who can speak for it. The term gets used as a generalisation to embrace not just the full length of an attenuated and fragmented supply chain, but also both the supply and demand sides of the process by which buildings are created. Many of the dealings involved in that process are, however, both transitory and transactional, and do not create a relationship that can commit to continuous (or any) improvement; and when successful relationships are created, they rarely extend beyond the duration of a single project, and teams are therefore constantly formed and re-formed.

The lack of obvious leadership of the construction industry is a consequence of its broad and diverse workload, and a lack of dominant players of the kind that “lead” other industries. The fragmentation of interests (profession from profession, trade from trade, company from company) also means that the industry has failed to develop at institutional level the habit of collaboration which characterises good teams working together on individual projects. Faced with a challenge, the separate interests tend to tackle it separately, solving only part of the problem - and frequently the same part of the problem, leaving treatments incomplete or simply not taken. Much valuable intellectual input, freely given, and much specialist knowledge, freely shared, is therefore squandered.

To the extent that it is possible to find a “centre” for the industry, the greatest hope must be the Construction Leadership Council. The CLC is not a direct delivery body, and lacks the resources to be one, but it does bring together most of the constituencies it takes to develop built assets and has the capacity to brigade those constituencies so they can coalesce around a plan to respond to a shared priority. That can extend to agreeing both who should lead and who should participate and signalling which piece of work it (and Government) is paying attention to. It can also point to market failures where work that needs be done to secure a safer future will not be done without intervention.

The CLC gains some of its authority by virtue of being co-chaired by a Government Minister. It has also gained considerable credibility by demonstrating leadership during the pandemic, in organising the people best able to produce safe operating procedures to do so, encouraging others to contribute, and persuading all to follow them.

The recommendation is therefore that the example is replicated: deciding for each line of a building safety programme who is best placed to lead; persuading others with an interest to desist

from competing activity and contribute to collective action instead; and then securing cross-industry buy-in.

In addition to the co-chairing role, Government then needs to engage at a level that demonstrates how seriously it takes the programme, with connections both to policy and to operations. Even though these are matters that the industry must lead on, because that's where the knowledge and skills reside, ensuring that the work is done, and done well, is entirely a matter of public interest. Government also has a continuing and critical role in the Building Safety Programme - not just in creating a new regime of accountability, and acting as the industry's regulator, but also in its role as the industry's biggest client and its sponsor. All of these roles come together in agreeing with the industry a practical plan for the programme of thought and action that is required not to fix a broken system, but to administer the routine servicing and updating that is a necessary precondition to any dynamic system continuing to function properly.

This will also call for a realistic appraisal of the resources required to deliver the programme, looking at incentives for action and participation; and as the plan includes significant areas of addressing market failure, consideration should also be given to providing some financial support - for example in the provision of a secretariat and coordinating management resource; and this would in turn give Government a more direct right to demand delivery. In support of that, there should also be a six-monthly report on progress to the Secretary of State.

The industry is at its best when faced with a practical task. That the ball is dropped too often is undeniable, and few would attempt to deny it. By the same token, the instincts and skills necessary to fix the issues raised in this report lay principally in the industry, and it therefore needs turning into what the industry recognises: a project, with the scope, methodology, programme, budget and other resources necessary to deliver it. The objective of that project is a collaborative endeavour to find the right combination of regulation, incentive, guidance, knowledge, process and culture to isolate and eliminate the errors, knowing or unknowing, that have caused or contributed to the Grenfell Tower tragedy and the associated cladding crisis.

39.2 Body of knowledge

Reference has already been made to the absence of a recognisable and accessible centralised body of knowledge for matters related to buildings and fire; and, in some cases (on the subject of systems testing, for example) the lack of consensus where knowledge does exist. The problem is partly organisational - with, as in the construction industry generally, a fragmentation of overlapping interests, and with no single organisation being (or feeling) responsible for assembling data and learning, and having the resources to do so.

Nor, when it comes to construction products, can it be assumed that shared learning will be gained through the conformity assessment process. Certainly there is scope for considering whether more information could usefully be shared between Approved Bodies to their benefit and to the benefit of their customers and their customers' customers; but the objective of the conformity assessment process is, for the manufacturers, getting a pass and placing the product on the market - and at that point the exercise stops. So, testing beyond the pass threshold and right through to the point of failure and learning the mechanism of failure and whether that is gradual and manageable or sudden and catastrophic may be a necessary part of product development, but that is rarely going to be knowledge that is shared.

The fire at Grenfell Tower illustrates just how much knowledge about the behaviour of buildings in fire needs to be accumulated and disseminated, and how much that knowledge needs to be a public good. That includes the behaviour of products, certainly, but must extend to safety-critical construction. It will not be possible to contemplate every combination of design approaches that might be taken towards these elements of construction, but it should be possible to identify and test solutions based on conservative design principles which, if competently executed, will keep

people safe. The amount that might justifiably be invested in that can be measured by reference to the amount that now needs to be spent as a consequence of not having the required knowledge hitherto, or not applying it properly.

Specially commissioned research should then be supplemented by constant feedback, and there is a multiplicity of possible sources for this, including:-

- the regulatory surveillance process and the product database proposed by OPSS;
- the reports that we recommend that UKAS should make as to lessons to be learned from the continuing oversight of Conformity Assessment Bodies;
- reasons for rejecting plans at project gateways;
- fire investigations conducted by fire brigades, and other inquiries into major incidents (both in the UK and overseas);
- reports published by CROSS[160];
- whistleblowers and the mandatory reporting required under the provisions of the Building Safety Act; and
- lessons learned from the cladding remediation programme currently in progress.

The value of this data is much diminished if it remains fragmented. It needs to be brought together, making connections between products and work in place, detecting trends, and agreeing preventative or remedial measures – whether that is a matter of industry practice or regulatory attention. It cannot, therefore, be left as an *ad hoc* exercise. It requires a structure and resources.

This too needs to be a shared venture, with most of the necessary knowledge and skills residing outside Government, but with Government being in a position to motivate and orchestrate the necessary action - and needing sufficient specialist skills in-house to do so.

As far as the structure through which such action might be organised is concerned, there is clearly a mood for collaboration amongst specialist bodies with a specialism in fire-related matters, and the Construction Leadership Council perhaps offers a model, with a council focused on all building-related matters connected with fire, co-chaired by a Government Minister and a respected figure from the industry. As for the CLC, its *modus operandi* would then be to brigade the knowledge and resources of the specialist organisations best able to lead and support the programme, with administrative support to co-ordinate activities and collect and disseminate learning.

There are other models, and the best can be taken from each. Reference has already been made to *BRANZ*, in New Zealand, which commissions and coordinates construction industry research and knowledge transfer, specifically including fire research, with a view to "lifting the performance of New Zealand's building system so it can deliver better outcomes for all"[161]. In Germany, the *Deutsches Institut für Bautechnik* (DIBt) is a technical authority and centre of excellence in construction which, acting on behalf of the federal states, "ensures the safety of construction works while fostering the development of innovative construction products and techniques"[162]. And in the UK, some parts of the same function were formerly provided by the Building Research Establishment.

For more detailed analysis of major incidents, there is an exemplar in the Air Accidents Investigation Branch and the equivalent organisations for major incidents in the rail and maritime

[160] CROSS (Collaborative Reporting for Safer Structures) is a "*secure and confidential safety reporting system that gives professionals the opportunity to share their experiences to help others*". Its reports cover issues of both fire and structural safety. See https://www.cross-safety.org/uk.
[161] See https://www.branz.co.nz/
[162] Seehttps://www.dibt.de/en/

sectors[163]. These are notable for the resource committed to understanding exactly what has happened, to learning lessons, and to making recommendations (whether as a matter of guidance or regulation) which prioritise the avoidance of a repetition of the incident over the allocation of blame. For the same reason, independence from the regulatory role is important.

The absence of an equivalent standing body for the investigation of major incidents involving building safety merits attention – and although the stress in this report is placed on fire, because of the immediacy of the impact of the fire at Grenfell Tower and its prominence in our terms of reference, the principles apply equally to structural safety.

Recommendation 20, re engagement with industry: to create a shared road map for practical progress to build on the mutual desire for change

20.1 Government to make a plan with the industry for it to take up a leadership position, effectively taking responsibility for the non-statutory/regulatory aspects of the Building Safety Programme, and co-ordinating a programme to put in place everything necessary to give effect to the requirements of the Building Safety Act and the recommendations of this report.

20.2 Government to call for a six-monthly report to the Secretary of State recording progress against the agreed programme of work

20.3 Government and industry to explore how an authoritative body of knowledge re the behaviour of buildings in fire, and other matters relating to building safety, can be brought together and made accessible to those responsible for designing, constructing and operating buildings safely.

20.4 Government and industry to put in place an organisational structure that is capable of receiving, recording and disseminating feedback in respect of matters of building safety, so that such feedback can lead to lessons learned and to plans for action.

[163] The Rail Accident Investigation Branch (see https://www.gov.uk/government/organisations/rail-accident-investigation-branch) and the Marine Accident Investigation Branch (see https://www.gov.uk/government/organisations/marine-accident-investigation-branch). In June 2022 the Department of Transport also announced the creation of a Road Safety Investigation Branch.

Part VI: Summary of Recommendations and Conclusion

A full schedule of the recommendations made in this report is included in Appendix 1, with the headlines set out in the Executive Summary (see section 7.0 above).

The over-arching objectives of the recommendations can be further summarised as follows, all underpinned by the principles of transparency and corporate and personal accountability:-

(1) setting standards which, if met, will deliver assurance of desired and defined outcomes, whether they might relate to quality, fitness for purpose or safety, rather than just provide a means of comparing products;
(2) ensuring that the conformity assessment process is conducted independently, and is not compromised by commercial interests;
(3) requiring manufacturers to make a full, honest declaration of the performance of their products, verified by reference to the assessment process, or by their own due diligence where independent conformity assessment is not prescribed;
(4) requiring declarations to be backed by the information that designers, contractors and building managers need in order to specify, install and maintain products so that they match that performance safely;
(5) establishing an organisational structure that engages Government, the industry and relevant actors in a shared endeavour to develop the processes by which the objectives of the Building Safety Act can be delivered; to build and disseminate a body of knowledge about the prevention of fire in buildings and the behaviour of buildings in fire; and to raise the understanding of building safety and the priority given to it;
(6) creating and operating an effective surveillance and enforcement regime,
(7) simplifying and clarifying both the system itself and the way it is communicated, so that compliance is not hindered by an actual or alleged lack of comprehension.

Running through all of this there are two other threads: those of capacity (that the system has the resources to deliver what is required of it) and competence (that, whilst regulatory oversight will always be necessary, there must be a presumption that those with a role in the process will have the knowledge, experience and skills to perform it competently and dutifully).

Finally, because knowledge is always building, there needs to be a structure which permits learning to be gathered and lessons to be learnt.

Most of the individual recommendations made in service of these objectives could be implemented without legislation. They generally comprise matters of procedural good practice or organisational issues, and some of them should be initiated immediately, either because they are urgent or because they will take time. This particularly relates to:-

- a prioritised review of standards, as recommendations 6.1-8 (in respect of which Government will have the benefit of the research conducted on behalf of DLUHC in 2020, as section 29.2 above, and expert evidence given in the Grenfell Tower Inquiry), including reviewing the allocation of products and their essential characteristics to AVCP system levels;
- a review of the capacity of testing houses, as recommendations 2.1-2, and a realistic appraisal of how the recognition of CE marking can be ended in January 2023 without significant disruption of the market.

Many other recommendations can be the subject of early consultation and action, including:-

- reviewing the role and effectiveness of UKAS, including non-statutory ways of regulating the performance of Accredited Bodies;
- rigorous criteria for the operation of voluntary third-party voluntary certification schemes;
- the implications of Modern Methods of Construction as a new category of potential risk;
- the potential for the application of Artificial Intelligence to replace or supplement physical testing;

- the production of a standard suite of documentation relating to assessment and the Declaration of Performance;
- the issue of fact sheets dealing with the general safety requirement and safety-critical products.

As far as changes requiring legislation are concerned, the essential provision of the indicative draft CPR22 is establishment of an effective regime of offences, surveillance and enforcement. Although much is made of recent building failures being the consequence of deregulation, we would say that they are equally the product of there being little risk of consequences in a breach of the rules, undermining belief in the system overall. No individual recommendations will be wholly effective in implementation unless they are accompanied by measures that address failures elsewhere in the system - particularly in surveillance, by encouragement and assistance towards compliance, and by enforcement and sanction in the event of wilful or careless non-compliance. Similarly, without effective enforcement it is not possible to know well how any system (including the existing one) might function.

Looking to the longer term, much hinges on a decision as to whether or not to accept the recommendation to take advantage of the opportunity created by the exit from the EU to make more radical changes to the regime for the testing and certification of construction products to make the regulations both simpler and more effective. This would include the changes summarised in section 24.2 of this report.

Given that any such changes would take a number of years to achieve, in the interim it is a question of balancing benefit against the disruption caused by reiterative change, and seeking to avoid making changes that will need to be changed again in the medium term.

Irrespective of the direction taken, we reiterate the need for an organisational structure that can act as the agency for a sustained programme of action, learning and feedback which, whatever the right regulatory mechanism might be, identifies what “safety-critical” really means in the context of buildings, and how safety can be assured.

As a consequence of the experience of the fire at Grenfell Tower, and particularly since the evidence heard in Module 2 of the Public Inquiry, it has become commonplace to describe the construction industry as “rotten” and the system as a whole as “broken”. Given the tragic consequences of the fire, and the human and financial cost paid by the many thousands of those caught in the subsequent cladding crisis, anger, and its immediate neighbour the allocation of blame, is understandable.

Certainly, wrongdoing must have legal consequences, and no number of clauses and sub-clauses in regulation will be as effective as that and the example it sets. The punishment of the few will not, however, put right the systems errors which are a basic finding of this review.

Looking beyond the specifics of the fire at Grenfell Tower, and leaving all judgements about what happened and why at Grenfell to the Public Inquiry, there is a coincidence of forces that have long characterised so much of the wider construction industry’s operations which lie at the root of many of the faults and failures in its output: low barriers to entry; clients whose driving interest is lowest cost, without sufficient thought to the longer term; contractors who are content to serve that interest, confident that they will be able to manage the consequences; product manufacturers who supply those contractors on the same basis; designers who, under the pressure of a competitive fee, adopt a “cut and paste” approach to design and specification; building managers who pay insufficient attention to routine housekeeping; the lack of a feedback loop, with teams disbanding as projects move towards completion (and sometimes long before) taking their learning with them, so that it might be held individually, but never collectively; and clients (both public and private) reluctant to invest in evaluating a building in use; with all of the above taking place in an era of relaxed regulation and little or no surveillance and enforcement, making it vulnerable to low levels of competence and failures in diligence.

There is no quick fix to so complex a problem in such a context. There are many levers – technical, regulatory, advisory, procedural, organisational, cultural – and finding the right balance of levers to pull for the right outcome can only be a collective effort. There must be a constructive partnership between Government and the industry, with a view to building on the good work and body of good practice that does exist and driving out the bad. It is our hope that the first steps along that partnership path can be taken now.

Appendix 1: Summary of Recommendations

1. Re complexity: to improve the accessibility of legislation and guidance, and to promote understanding of the regime for the regulation and assessment of construction products

1.1 Government to use the opportunity of bringing in secondary legislation relating to construction products to consolidate the relevant legislation as much as possible; or alternatively to publish an unofficial consolidation that brings all such Construction Products Regulations (as they will exist after implementation of the secondary legislation) into a single document.

1.2 Government and industry to publish and keep updated a comprehensive guide, in plain language, describing the conformity assessment processes prescribed in the Construction Products Regulations.

1.3 Industry to include in built environment education courses a general understanding of the conformity assessment process across the industry and its importance in product selection and design.

1.4 Industry to promote awareness and understanding of the conformity assessment process across the industry, at levels of detail appropriate to different functions within the supply chain, with particular reference to the responsibilities and requirements of dutyholders.

2. Re capacity: to address the inadequacy of testing capacity to meet the projected growth in demand as a consequence of the end of recognition of CE marking and changes to the Construction Products Regulations

2.1 Government to develop a clearer understanding of the existing capacity of the Conformity Assessment Bodies to meet current and predicted demand for conformity assessment and testing services (regulatory and voluntary) for all product families.

2.2 Government to take action to relieve current pressures on the testing market as the industry transitions to UKCA marking. This could include (either for all products or for those with an acknowledged capacity problem):-

(1) extending the ability to make a straight conversion of CE marking to UKCA marking (or simply continue to accept CE marking) beyond 31 December 2022;

(2) allowing use of overseas laboratories if (for example) the laboratory is accredited by UKAS or an Accreditation Body covered by the ILAC Arrangement.

2.3 Government and industry to investigate the potential for alternative technologies (AI, digital modelling etc), on their own or in conjunction with physical testing, to reduce or eliminate the requirement for physical testing, without reducing the reliability of the data provided.

3. Re general safety requirement: to bring products currently outwith the Construction Products Regulations into the regulatory regime in an effective and proportionate way

3.1 Government to publish a fact sheet on the interpretation, operation and enforcement of the general safety requirement to demonstrate how the complications noted in this review, and any others arising from consultation, can be addressed to ensure that the requirement will be both effective and proportionate.

3.2 Government to frame the requirement so that

(1) manufacturers have “reasonable skill and care” defences against an allegation of breach, at least equivalent to those available under the General Product Safety Regulations;

(2) enforcement agencies have a reasonable prospect of identifying a breach, ideally in prospect, and then of successful prosecution, so the deterrent is an effective one;

(3) similarly, that anyone with a right to bring a civil claim has a reasonable prospect of identifying a breach, and then bringing a successful claim;

(4) the allocation of risk is consistently treated through the life cycle of the product, with the duties and potential sanctions imposed on those who manufacture a product bearing a logical relationship to the duties and sanctions imposed on those who design, construct and occupy a building;

(5) the manufacturer’s liabilities are insurable, absent a criminal offence.

3.3 Government and industry to explore the practicality of developing standards and guidance which support the general safety requirement.
3.4 Government to review the specific effectiveness of the general safety requirement after five years, as part of the review of the regulatory environment generally, including confirmation that the cost of compliance is demonstrably proportionate to the benefit.

4. Re safety-critical products: to increase the focus on products essential to (and in the context of) safety-critical construction

4.1 Government to publish a fact sheet on the interpretation, operation and enforcement of provisions relating to safety-critical products to demonstrate how the complications noted in this review, and any others arising from consultation, can be addressed to ensure that the provisions will be both effective and proportionate.
4.2 Government to list products (or products marketed as a system) as "safety-critical" in the context of safety-critical construction, the safety function of the product, its susceptibility to fault or failure, and the consequences of failure – with all products or systems meeting the criteria for listing being listed as safety-critical, whether or not covered by a designated standard.
4.3 Government to mandate that safety-critical products or systems are subjected to the most stringent level of conformity assessment that is practical for the particular product or system.
4.4 Government and industry to examine the practicality and implications of producing an inventory or directory of "safety-critical" products and systems.

5. Re accreditation: to strengthen the role of UKAS in the accreditation process

5.1 Government to review UKAS's oversight role with a view to strengthening it by, for example:-
(1) the use of unannounced inspection;
(2) commissioning independent expert reviews of certification reports on a random sample basis or where specific concerns have been raised.
(3) other means found effective in other sectors or in other countries.
5.2 Government to require from UKAS a formal report on lessons to be learned from the events leading up to the fire at Grenfell Tower.
5.3 Government to require from UKAS an annual report to Government that brings together learning from the audits of the CABs, both in respect of the CABs themselves and the standards and processes they work to.
5.4 Government to review UKAS's function in respect of the conformity assessment of construction products with a view to establishing a more ambitious, strategic role addressing the health of the market, capacity, consistency, shared learning, independence and impartiality, the effectiveness of oversight and UKAS's future governance and relationship with Government.

6. **Re standards:** to address the coverage, quality and oversight of UK standards

6.1 Government to satisfy itself that BSI is free to act on mandates to develop or revise standards required as a UK national priority, unconstrained by the rules for CEN/CENELEC membership.
6.2 Government to set and publish terms of reference and modus operandi for the proposed Construction Products Standards Committee, to include providing continuing oversight of the effectiveness of product testing standards.
6.3 Government to establish a prioritisation system and, by reference to it, to undertake a prioritised review of critical missing or inconsistent product standards, or standards where compliance does not achieve a desired regulatory outcome.
6.4 Government to mandate BSI to facilitate the revision of existing or development of new standards in accordance with the established priorities.
6.5 BSI to develop a navigation framework to enable users to identify and locate standards relevant to their work, and to confirm their current status; and to put in place the means of keeping the prioritisation framework up to date.

6.6 Government to commission and fund the development or updating of regulatory product standards critical to safety, with the research and drafting groundwork to be commissioned from independent experts under the direction of a steering group of relevant stakeholders.

6.7 Subject to the line taken in relation to recommendation 6.6, Government and BSI to consider the longer term funding model for the development, publication and continuing review/updating of regulatory standards.

6.8 Government to reassure itself that the 17000 series standards by which the accreditation process itself is implemented and assessed remain fit for purpose, and are consistent with the requirements of the Construction Products Regulations as they will exist after implementation of the secondary legislation proposed under the Building Safety Act.

7. **Re systems testing:** to strengthen understanding and application of testing products assembled into systems

7.1 Government to consider where, on the basis of the analysis of safety-critical construction, there is a necessary and practical regulatory requirement for additional systems testing, with particular reference to the behaviour of external cladding systems in fire, and publish its findings.

7.2 Government and industry to address the special requirements of Modern Methods of Construction, in terms of standards, regulation and regulatory oversight.

8. Re Conformity Assessment (Approved Bodies): to restore the outcome of the conformity assessment process as a public good

8.1 Government formally to adopt all existing current CPR-GNB guidance notes, and set out plans for reviewing and updating the notes and for producing new guidance in the future.

8.2 Government and Approved Bodies to finalise terms of reference for a UK group of Approved Bodies and the means of funding its activities, including the support of a technical and administrative secretariat.

8.3 Government to require Approved Bodies to declare to UKAS any cases in which they are providing consulting or other services not related to conformity assessment to customers for whom they are also conducting conformity assessment, and the measures put in place to manage any conflict of interest.

8.4 Government to impose upon Approved Bodies a duty to inform the Regulator where there is good reason to suspect that a manufacturer is “shopping around” for a test pass; or is misrepresenting the conclusions of the conformity assessment process in the Declaration of Performance, any related product information or other marketing material; or is manipulating the system in any other way that could undermine confidence in its outcome.

8.5 Government to require Approved Bodies to withhold or suspend a product’s certificate if they become aware of any inaccuracies in a Declaration of Performance, until such inaccuracies are corrected.

8.6 Government to create a statutory duty upon Approved Bodies to act in the public interest in the conduct of the conformity assessment process and to ensure there are effective enforcement remedies for a failure to do so.

8.7 Government, UKAS and CABs to consider whether any functions of the Oversight Committee recommended to oversee the conduct of voluntary third-party certification schemes (see recommendation 14.2) might usefully and appropriately be extended to the regulatory conformity assessment process.

9. Re Conformity Assessment (Manufacturers): to ensure Approved Bodies are provided with all relevant information when making an assessment

9.1 Government to place a duty on manufacturers to:

(1) declare to the Approved Body the testing history of a product, including failed tests and developments made to the product since the failure;
(2) confirm whether any other testing is planned in parallel;
(3) ensure that samples delivered for testing are as selected by the Approved Body;
(4) produce full specifications and drawings of test rigs (where relevant), and arrange for delivery notes to accompany all materials delivered for the purposes of testing; and

(5) re-submit for testing a sample selected by the Approved Body from series production where a certificate has been based on testing a prototype.

9.2 Government also to place a duty on manufacturers to notify the Approved Body that issued the certificate whenever a potentially material change has been made to the specification or manufacture of the product.

10. Re Conformity Assessment (the Assessment and Verification of Constancy of Performance system): both to simplify and strengthen the AVCP system.

10.1 Government and industry to review the AVCP system in general, with a view to simplifying it, considering:

(1) the criteria for allocation of products and their essential characteristics to system levels;
(2) the actual allocation of products/essential characteristics to system levels;
(3) whether the existing five levels and the actions at each level are also necessary and adequate; and
(4) how responsibility for the actions should be allocated between manufacturers and Approved Bodies.

10.2 More specific recommendations to be addressed are:-

(1) removing AVCP system level 4 from the regulatory conformity assessment process;
(2) eliminating the simplified procedure by which micro businesses can opt for products which should otherwise be assessed at AVCP system level 3 to be assessed instead at level 4;
(3) going further, removing AVCP system level 3 from the regulatory conformity assessment process (or, if it is to be retained, establishing a template for system level 3 and requiring sample selection by Approved Bodies);
(4) going further still, removing all products from the regulatory conformity assessment process except for safety-critical products; and
(5) introducing initial testing at level 2+ and series production testing at levels 2+ and 1 (in addition to 1+), where practical given the nature of the product.

11. Re AVCP documentation: to ensure the transparency and accessibility of assessment documentation

11.1 Subject to recommendations 11.2-4, manufacturers to be required to make available the full suite of documentation that supports the Declaration of Performance.

11.2 Government, the Approved Bodies and industry to consider whether it is possible to include in certificates and classification reports all information derived from testing that is necessary to support the claims made in the Declaration of Performance, provide a reliable baseline to identify future changes in composition or manufacture, and meet the information requirements of subsequent dutyholders.

11.3 If that is not possible, manufacturers to be required to publish readily accessible test reports in full.

11.4 If there are good reasons why full test reports should not be published, the reports should be held in the joint ownership of the Approved Body and the manufacturer to protect proprietary information, but with an obligation to disclose them to the Construction Products Regulator, given reasonable cause.

11.5 Government, the Approved Bodies and industry to develop a coordinated and standardised suite of documentation, comprising certification and classification report (where relevant), Declaration of Performance and product information, to be adopted by all Approved Bodies and manufacturers. Any variations made necessary by the specifics of the products should then also be standardised, per product or family of products.

12. Re the Declaration of Performance: to provide verified and consistent product information to all of those relying on the assessment process

12.1 Government and industry to explore the practicality and proportionality of requiring a Declaration of Performance for all products.

13. Re Technical Assessment: to provide a route to market for innovative products

13.1 Government and the UK Technical Assessment Bodies to resolve the future of the Technical Assessment route to UKCA marking.

13.2 In particular, Government and the UK TABS to establish the practicality and sustainability of providing a route to market for safety-critical products for which there is no designated standard.

14. Re voluntary third-party certification: to increase the scope and ensure the rigour of third-party certification schemes

14.1 Government and industry to develop a plan to increase the operation of voluntary third-party schemes for non-safety-critical construction products, to include:

(1) a survey of the schemes that currently exist;

(2) the scope and appetite for those schemes to be brought under a common set of principles designed to introduce consistency and rigour, and the agreement of those principles;

(3) the potential for additional schemes to be brought forward, and the incentive both for creating and subscribing to them, including the possibility of Government endorsement;

(4) how schemes might be modified or developed from scratch, and by whom.

14.2 UKAS/CABs to establish a national Oversight Committee to oversee CABs' activities in the conduct of voluntary third-party certification schemes, in order to advise on the need for and quality of schemes, to respond to concerns about any evidence of a lack of impartiality in the process, and to provide a right of appeal against decisions made in that process.

15. Re marketing and the Code for Construction Product Information: to ensure the production of clear, accurate, honest and accessible product information

15.1 Industry to work together to encourage take-up of the Code for Construction Product Information, in terms of manufacturers signing up and specifiers/procurers taking note of signing up in product selection.

15.2 Government and industry to consider whether and how the Code and third-party certification could best work together to achieve their shared objectives.

15.3 Government and industry to consider how the Code could perform a recognised self-regulatory function comparable to the Code of Advertising Practice.

16. Re labelling, traceability and the golden thread: to develop standards and protocols for product labelling and traceability, the management of information via the golden thread, and the control of product substitution

16.1 Government and industry to develop a framework standard for a consistent labelling and traceability system for products, within which methods appropriate to the nature of each product can be developed, and incorporated in product standards.

16.2 Re the golden thread, Government and industry to:

(1) set digital standards that, to the greatest possible degree, conform to standards likely to be adopted for wider use in the digitalisation of the construction industry;

(2) establish protocols by which product information can be filtered and introduced into the golden thread so that it meets the needs of successive dutyholders without overwhelming them with extraneous material which obscures the essential information;

(3) make provision within those protocols for the transfer and protection of information necessary for retrospective traceability;

(4) consider those protocols in the context of wider information needs through the supply chain and the product/building life cycle, so that the gathering of information required for the golden thread can begin at any time from the product being made available on the market.

16.3 Government to develop statutory mechanisms to manage product substitution, and make clear where responsibility for all the implications of substitution falls.

17. Re competence: to address the particular competence requirements for complex, higher-risk buildings

17.1 Government to review the effectiveness of main contractor licensing schemes elsewhere in the world, lessons learned and the implications of introducing such a scheme in the UK.

17.2 More specifically, Government to consider licensing as a formalisation of the competency requirements of a Principal Contractor on higher-risk buildings.

18. Re surveillance and enforcement: to strengthen and support the surveillance and enforcement regime, to ensure fair competition and the conformity of products on the market

18.1 Government to ensure active and effective enforcement under the new regulatory regime for products, backed by adequate and trained resources, communicated with such clarity as to persuade manufacturers and others in the product supply chain that breaches of duty will have real consequences, and that competition (including competition from imports) will be conducted on a level playing field.

18.2 Government to develop a sector-specific, publicly accessible database that lists products known not to comply with the conditions for being placed on the market, or for which claims are made that cannot be verified.

18.3 Industry and its trade associations to provide leadership for manufacturers to aid and support compliance with regulatory requirements, and to work closely with the Regulator with the same objective and in taking corrective action where required.

19. Re public procurement: for Government to use public sector buying power as an incentive to adopt best practice in securing product and building safety

19.1 Government to declare whether the following could be included in the selection criteria for Government procurement, subject to meeting certain conditions; and to agree those conditions with the industry, together with the evidence required to demonstrate that they have been satisfied and an agreed programme for the exercise:

(1) bidders demonstrating how they propose to produce safe building outcomes, approaching the building as a system;

(2) bidders committing to specify and procure products from suppliers who are committed to complying with the Code for Construction Product Information; and

(3) bidders committing to cultural behaviours consistent with the *Building A Safer Future Charter* and to verification.

19.2 Government to make as a condition of its funding to local authorities, executive agencies and other arm's length bodies the use of the same criteria in their procurement processes for construction services.

20. Re engagement with industry: to create a shared road map for practical progress to build on the mutual desire for change

20.1 Government to make a plan with the industry for it to take up a leadership position, effectively taking responsibility for the non-statutory/regulatory aspects of the Building Safety Programme, and co-ordinating a programme to put in place everything necessary to give effect to the objectives of the Building Safety Act and the recommendations of this report

20.2 Government to call for a six-monthly report to the Secretary of State recording progress against the agreed programme of work.

20.3 Government and industry to explore how an authoritative body of knowledge re the behaviour of buildings in fire, and other matters relating to building safety, can be brought together and made accessible to those responsible for designing, constructing and operating buildings safely.

20.4 Government and industry to put in place an organisational structure that is capable of receiving, recording and disseminating feedback in respect of matters of building safety, so that such feedback can lead to lessons learned and to plans for action.

Appendix 2: **Terms of Reference**

INDEPENDENT REVIEW OF THE CONSTRUCTION PRODUCTS TESTING REGIME

1. Evidence from the Grenfell Tower Public Inquiry has shone a light on cases where construction products that were tested did not represent those placed on the market, and where the combination of products tested was inaccurately described in the test report.

2. Other testing irregularities uncovered since 2017 involved cladding and fire doors, leading among other Government interventions to a complete withdrawal from the market of all composite fire doors. In these cases, the products sold did not match those that were tested and certified, and flawed test evidence was then used by manufacturers to support claims that their products were suitable for use in high-rise residential buildings when this was not the case.

3. Dame Judith Hackitt's Independent Review of Building Regulations and Fire Safety identified weaknesses in the system for construction product testing, while acknowledging that '[t]he system that covers product testing, labelling and marketing is at least as complicated as the entire regulatory system', and that 'significant further work is needed … to create a comprehensive regime that ensures that all products used in construction are properly tested and certified'.

4. The Government is committed to ensuring that the testing regime for construction products is effective and inspires public and market confidence. On 19 January 2021, the Secretary of State for Housing, Communities and Local Government announced that Government would commission an independent review of the regime under which construction products are tested, certified and brought to market in the UK.

5. The independent review will identify systemic issues with how construction products are tested, whether on a stand-alone basis or in assemblies, and how test results are used to manage the safety risks that those products or assemblies pose, and recommend ways to address those issues. The review will answer the question: '***How should the UK system for testing the safety of construction products and the use of data from the system be strengthened, to inspire confidence that those products are safe and perform as labelled and marketed when incorporated into construction work?*****"**

6. The review will do this by:

    a. Mapping the system for testing, certifying, marketing, selling, re-testing and recalling construction products, including the legal framework under which this happens.

    b. Considering evidence from a variety of sources and assessing what does/could go wrong within this system.

    c. Recommending how this system should be strengthened, taking into account wider Government and industry reforms and any economic or practical implications of implementing the recommendations.

7. The independent review will prioritise making recommendations relating to weaknesses in the system which, if unresolved, could expose citizens to unnecessary safety risks. The review is not limited in scope to construction products intended for use in high rise residential buildings. The system for testing products not intended for use in construction is outside the scope of this review.

8. The review will consider the respective roles of Government, regulators, the United Kingdom Accreditation Service (UKAS), Conformity Assessment Bodies, test houses and

manufacturers. The review will seek evidence from these parties and any other stakeholders and experts it sees fit to engage with.

9. The independent review will be led by a panel comprising:
   a. Paul Morrell OBE (Chair of the review)
   b. Anneliese Day KC

10. The review panel will be supported by officials from the Ministry of Housing, Communities and Local Government (MHCLG)[164] and from the Office for Product Safety and Standards (OPSS), which the Government recently announced would be the national regulator for construction product safety.

11. The review will run in parallel and fully cooperate with the work of the Grenfell Tower Inquiry headed by Sir Martin Moore-Bick. The review will not be involved in apportioning responsibility for the events that led to the Grenfell Tower fire.

12. The review panel will submit a report to the Secretary of State for Housing, Communities and Local Government in Summer 2021 and Government will publish the report and a response to it as soon as practicable.

[164] Since renamed The Department for Levelling Up, Housing and Communities ("DLUHC") – which denomination is therefore used in this report.

Appendix 3: Consultees

***Note**: job titles are as at the date of consultation*

- David Adams, Melius Homes; formerly Head of External Affairs, Knauf Insulation
- John Albon, Chief Scientific Officer, British Board of Agrément
- Professor Sam Allwinkle, Past President CIAT (7)
- Jon Arnold, Envelope Product Development Manager, Tata Steel (5)
- Chris Aspinall, Chair, Society Facade Engineering (7)
- Professor Colin Bailey CBE, President and Principal, Queen Mary University of London
- Peter Baker, Chief Inspector of Buildings, HSE
- Peter Barker, Technical Division, Warringtonfire (10)
- Murray Bean, Consultant, Total Flow Ltd
- Russell Beattie, Chief Executive, Federation of Environmental Trade Associations (5)
- Richard Beresford, Chief Executive, National Federation of Builders (6)
- Brian Berry, Chief Executive, Federation of Master Builders (6)
- Mark Bew MBE, Chairman, PCSG; formerly Chair BIM Task Group
- David Bigland, Certification Manager - Building Products, Intertek; Chair UK Group of Approved Bodies
- Nigel Blacklock Technical Director, Bauder; Vice President, Insulation Manufacturers Association
- Kevin Blunden, Chairman, Association of Consultant Approved Inspectors (7)
- Nick Boulton, Head of Technical & Trade, Timber Trade Federation (8)
- Lee Brankley, Chief Executive Officer, CARES
- Richard Bromley, Chief Technology Officer, ASSA ABLOY Opening Solutions (5)
- Stuart Brown, Group Technical Director, CA Group (5)
- Steve Brunige, Head of Industry and Government Engagement, BSI Standards (3)
- Anthony Burd, Associate Director and Head of Built Environment, BSI Standards (3)
- Paul Bussey, Senior Technical Consultant, Allford, Hall, Monaghan & Morris (7)
- Peter Caplehorn, Chief Executive, Construction Products Association
- Steve Chappell, Technical Officer, Glass and Glazing Federation (8)
- Gillian Charlesworth, Group CEO, BRE
- Abhishek Chhabra, Technical Director, Thomas Bell-Wright
- Joe Cilia, Technical Director, Finishes and Interiors Sector
- Hanna Clarke, Digital & Policy Manager, Construction Products Association
- Ian Clements, Managing Director, Quadriga Health & Safety
- Dr Sarah Colwell, Director, Fire Suppression Testing & Certification, BRE (2)
- Steve Cook, Product Improvement & Innovation Manager, Willmott Dixon (5)
- Mark Cottell, Building Safety Programme Lead, National Fire Chiefs Council (NFCC)
- Ian Crickmore, Technical Director, Polypipe Terrain (8)
- Mark Cummings, Divisional Director, Technical Team, Warringtonfire (10)
- Asif Dar, Technical Services, Knauf Insulation (8)
- Rav Dhaniel, Chartered Fire Engineer, Arup
- Frances Darling, Trading Standards & Licensing Operations Manager, Shropshire Council (1)
- Kevin Davies, Head of Technical, Sto Ltd (5)
- Dr Hywel Davies, Technical Director, Chartered Institution of Building Services Engineers; and Chair, Building Regulations Advisory Committee
- James Ellis, Head Of Marketing, Certsure; Chair, Chartered Institute of Marketing Construction Industry Group (7)
- Steve Evans, Head of Technical Operations, NHBC (7)
- Cris Francis, Head of Assurance, BRE
- Ian Ferry, Trading Standards, Warwickshire County Council (1)
- Kevin Frewin, formerly Head of Notified and Approved Body Activities, BSI
- Catherine Fyfe, Divisional Marketing Manager, Polypipe (8)
- Dr Martin Ganley, Innovation Director and Executive Director, BRE Global (2)
- Mark Gatrell, Head of Innovation & Quality, SIKA (5)

- Hardy Giesler, CEO, British Board of Agrément
- Jane Goddard, Group Director of Corporate Affairs, BRE (2)
- Dr Jim Glockling, Technical Director, Fire Protection Association
- Amy Gray, Head of Public Affairs and Policy, BRE (2)
- Paula Gray, Head of Procurement, Barhale (6)
- David Green, Fire Engineer, London Fire Brigade; formerly National Officer, Fire Brigades Union
- Paul Greenwood, Operations Director, UKAS (9)
- Simon Hamlett, BSI Standards (3)
- Dame Judith Hackitt DBE, lead, the Hackitt Review; Chair, DLUHC Industry Safety Steering Group
- Dr Stephen Hamil, Innovation Director, NBS
- Rick Hartwig, Built Environment Lead, IAT (7)
- Andrew Haslett, Consultant, Total Flow Ltd
- Andrew Herbert, Interim Chief Financial Officer, BRE Group
- Bill Hewlett, Technical Director, British Board of Agrément (also +7)
- Christopher Hodges OBE, Emeritus Professor of Justice Systems, University of Oxford; Co-Founder, International Network for the Delivery of Regulation
- Tamara Hooper, Senior Policy Manager, National Fire Chiefs Council
- Paul Howard, Fire Resistance and Innovation Lead, BRE (2)
- Philip Howard, Quality & Governance Manager, Warringtonfire (10)
- Laura Hughes, Manager, General Insurance, ABI
- Malcolm Hynd, External Affairs Manager, UKAS (9)
- Simon Ince, Project Engineer, UL International
- Ronnie King OBE, Honorary Secretary, All-Party Parliamentary Group for Fire Safety and Rescue
- Dyan Johnson, Building Confidence Review Implementation Team, Australian Building Codes Board
- Lee Jones, Head of Manufacturer Solutions, NBS
- Daniel Joyeux, President, Efectis
- Steven Kenny, Managing Director, RCS Doors (5)
- Duncan King, Technical Manager, Construction Products Association (8)
- Paul King, Director of Sustainability, Lendlease
- Sir John Kingman KCB, lead, Independent Review of the Financial Reporting Council
- Sir Ken Knight CBE, formerly Commissioner of the London Fire Brigade; Chair, DLUHC Expert Advisory Panel
- Dr Angus Law, Lecturer in Fire Safety Engineering, The University of Edinburgh
- Frank Lee, UK and Ireland Product Certification Director, BSI Certification (4)
- Gareth Lewis, CEO for Construction, Mace Group (5)
- Amanda Long, Chief Executive, Considerate Constructors Scheme; Chief Executive *Building a Safer Future Charter*
- Tony Lovell, Director and Group Leader, Arup Fire
- Alex Lubbock, Global Construction Practice Director, BSI Certification (4)
- Louis Lyons, Policy & Research Coordinator, BuildUK (5)
- Tony Maguire, Boxkik (representing CARES)
- Matt Mahony, Policy and Public Affairs Executive, Construction Industry Council (7)
- Hannah Mansell, UK Group Technical Director, Masonite UK (8)
- Daniel Mansfield, Head of Policy Engagement, BSI
- Wendy Martin, Director of Policy, ACTSO (1)
- Patricia Massey, Digital & Technology Manager, BEAMA (7)
- Douglas Masterton, Technical Manager, Guild of Architectural Ironmongers (7)
- Patrick Maxwell, Head of Test Business Unit, British Board of Agrément (7)
- Ed McCann, Senior Director, Expedition Engineering; Vice President, Institution of Civil Engineers; Strategic Leadership Group, *Get It Right* Initiative
- Matt McDonald, Building Confidence Review Implementation Team Leader, Australian Building Codes Board

- Iain McIlwee, Chief Executive, Finishes and Interiors Sector (5)
- Graham McKay, Global Head of Built Environment Energy Products, BSI Certification (4)
- Nick Mead, Technical Director, Laing O'Rourke; Chair, CIC Committee on Modern Methods of Construction
- David Metcalfe, Director, Centre for Window and Cladding Technology
- Chris Miles, Commercial Director Fire Protection Association; formerly Head of UK Approved Body, UL International and Chair UK Technical Assessment Bodies
- Andy Mitchell CBE, Co-Chair, Construction Leadership Council
- David Moore, BCA (5)
- Kevin Morgan, Banx Ltd (5)
- Dr Kate Nguyen, Senior Lecturer, Advanced Construction Materials, RMIT University, Melbourne
- Suzannah Nichol MBE, Chief Executive, BuildUK (+5)
- Jon O'Neill OBE, Managing Director, Fire Protection Association
- Mike Ormesher, Ottersbrook Consulting Ltd; Project Director, Off-Site Homes Alliance
- Steve Osborne, Team Leader for Trading Standards and Licensing, County Borough of Blaenau Gwent (1)
- Andrew Orriss, Assurance Director, Structural Timber Association (7)
- Saverio Pasetto, Head of Facades, Skanska UK; Chair, Centre for Window and Cladding Technology
- Chris Pateman, General Secretary, Engineered Panels In Construction (5)
- Simon Pitchers, consultant and joint founder, Craddys; Council member, The Institution of Structural Engineers (7)
- Richard Prince, Principal Fair Trading Officer, County Borough of Blaenau Gwent (1)
- Tony Quigley, Head of Service, Trading Standards, Birmingham City Council (1)
- Nick Ralph, Public Affairs Manager, Rockwool UK (8)
- Alasdair Reisner, Chief Executive, Civil Engineering Contractors Association (6)
- Bob Richardson, Head of Technical & Training, National Federation of Roofing Contractors (5)
- David Ricketts, Head of Technical and Compliance for Product Certification, BSI Certification (4)
- Bryn Rodgers, Senior Design Manager, Sir Robert McAlpine (5)
- Craig Ross, Associate Director of the Built Environment, Royal Institution of Chartered Surveyors (7)
- Niall Rowan, Technical & Regulatory Affairs Officer, Association for Specialist Fire Protection (5)
- Jim Rowley, Technical Director, Schüco UK Ltd (8)
- Neil Sandberg, Managing Partner, Sandberg
- Neil Savery, Chief Executive Officer, Australian Building Codes Board
- Judith Schulz, Director (Fire Safety Engineering), Arup
- Matthew Sexton, Market Development and Technical Standards Director, BMI Group
- Michael Skelding, General Manager, The Door and Hardware Federation (8)
- Dr Debbie Smith, Chair, European Committee CEN TC127 on Fire Safety
- Tenniel Souter, Engineering & Quality Manager, Balfour Beatty (6)
- Crispin Steele, Trading Standards Team Manager, Warwickshire County Council (1)
- Lorna Stimpson, Chief Executive, LABC (7)
- Terry Stocks, Director and Head of Public Sector, Faithful+Gould; Chair, Industry Response Group
- Simon Storer, CEO, Insulation Manufacturers Association
- Gary Strong, Global Building Standards Director, Royal Institution of Chartered Surveyors; Chair UN International Fire Safety Standards Coalition
- Scott Steedman CBE, Director General, Standards, BSI (+3)
- Patrick Sullivan, BBA (7)
- Steve Swales, Chief Commercial Officer, Siderise
- Andrew Taylor, Technical Officer, Association for Specialist Fire Protection (5)
- Hugh Taylor, External Affairs Director, UKAS (7 + 9)
- Julian Taylor, Technical Director, Structherm (5)

- Mark Taylor, Director responsible for technical quality, Allies & Morrison
- Professor José L. Torero, Professor Civil Engineering and Head of the Department of Civil, Environmental and Geomatic Engineering, University College London
- Adam Turk, CEO Siderise; Chair Construction Products Association Marketing Integrity Group
- Lorraine Turner, Accreditation Director, UKAS (+9)
- Kevin Underwood, Technical Director, British Woodworking Federation (5+8)
- Rob Veitch, Executive Vice President: Fire and Building Products Sector, Element Materials Technology (10)
- Chris Wade, Design Leader, Laing O'Rourke (5)
- Graham Watts OBE, Chief Executive, Construction Industry Council
- Robert Wells, Global Life Protection Practice Director, BSI Certification (4)
- Paul White, Ventilation Fire Smoke Ltd (5)
- Paul Whitehead, Director, Quadriga Health & Safety
- Steve Whitfield, Manager Customer Technical Services, Tata Steel Europe (5)
- Matt Wicks, Doorstore (Wirral) Ltd
- Mike Wood, formerly Head of Fire Protection, Pilkington UK; Adviser to the All-Party Parliamentary Group on Fire Safety & Rescue
- Graham Wright, Legislation & Compliance Manager, Dakin UK (5)
- Francesca Yeomans, Legal & Governance, Warringtonfire (10)

(1) Conference call convened by Association of Chief Trading Standards Officers
(2) Conference call with BRE
(3) Conference call with BSI Standards
(4) Conference call with BSI Certification
(5) Conference call convened by BuildUK
(6) Conference call convened by CECA
(7) Conference calls convened by Construction Industry Council
(8) Conference call convened by Construction Products Association
(9) Conference call with UKAS
(10) Conference call with Warringtonfire

In addition, written representations have been received from:-

- The Association of British Certification Bodies
- CARES - UK Certification Authority for Reinforcing Steels
- Construction Industry Council
- The Institution of Engineering and Technology
- The Local Government Association
- The Mineral Products Association
- The National Fire Chiefs Council
- Chris Davey, General Manager, Construction Products Testing, Attain RTC Ltd
- Darren Lester, Founder & CEO, SpecifiedBy
- Dan Norman, Specification Advisor, Obex Protection Ltd
- Dr Efim Rabinovitch, Managing Director, PowerPrize Ltd

Appendix 4: UKAS accredited Approved/Notified and Technical Assessment Bodies

Note: *updated from base date of the report to the position as at date of publication.*

Source: *https://www.gov.uk/uk-market-conformity-assessment-bodies + UKAS website.*

Company	Approved or Notified Body *	Technical Assessment Body	Product categories (see key below)
4Ward Testing Ltd, Petworth	✓	-	28
Alcumus ISOQAR Ltd, Manchester	✓	-	31
BM Certification UK Ltd, Warwick	✓	-	9, 17, 32, 36
BRE Global Ltd, Watford	✓	✓	8-11, 13-19, 21, 23, 26, 32, 33, 35-38
British Approvals Service for Cables (BASEC), Milton Keynes	✓	-	21
British Board of Agrément, Watford	✓	✓	3, 4, 9, 12, 14, 15, 18, 19, 22, 23, 25, 26, 31, 32, 33, 36
British Engineering Services Ltd, Warrington	✓	-	31
BSI Assurance UK Ltd, Milton Keynes	✓	-	1, 3, 4, 5, 8, 9, 11, 13, 14, 15, 17-23, 25, 26, 30-33, 35, 36
BSRIA Ltd, Bracknell	✓	-	29
Calibso Ltd, t/a Bluesky Certification, London N1	✓	-	9
Cambridge Fire Research Ltd, Cambridge	✓	-	9, 16, 17, 18, 38
CATG Ltd, Morecambe	✓	-	32, 36
CCQS UK Ltd, London SW1	✓	-	21
CEM International Ltd, Farnborough	✓	-	9, 15, 31, 36
Centexbel International Ltd, London WC2	✓	-	14
Centre for Assessment Ltd, Manchester	✓	-	31
Control Union (UK) Ltd, London E14	✓	-	17, 32, 36
DBI Certification UK Ltd, Blockley	✓	-	9, 11
DNV Business Assurance Ltd, London SE1	✓	-	31
Efectis UK/Ireland Ltd, Jordanstown, NI	✓	-	6, 8, 9, 11, 13, 14, 16-21, 23, 26, 28, 33, 36, 37, 38
Element Materials Technology, t/a Element, Wednesbury	✓	-	9
ER Certification Ltd, Leigh	✓	-	8, 9, 13
FM Approvals Ltd, Maidenhead	✓	✓	8, 11, 15, 17, 19, 26, 33
Hartford Steam Boiler UK Ltd, Manchester	✓	-	31
HORIBA MIRA Certification Ltd, Nuneaton	✓	-	5
IFC Certification Ltd, Princes Risborough	✓	✓	9, 10, 11, 13, 17
Impact Laboratories Ltd, t/a Impact Solutions, Grangemouth	✓	-	20

Interscience Communications Ltd, Gosport	✓	-	21
Intertek Testing & Certification Ltd, Brentwood	✓	-	8, 9, 11
Kiwa Ltd, t/a Kiwa Energy, Cheltenham	✓	-	29
LNE-GMED UK Ltd, Hemel Hempstead	✓	-	4, 17, 19
LRQA Verification Ltd, Solihull	✓	-	1, 3, 4, 23, 25, 31
Lucideon Ltd, Stoke-on-Trent	✓	-	6, 14, 17, 18, 26
Lucideon CICS Ltd, Stoke-on-Trent	✓	-	18, 33
Pavement Testing Services Ltd, Preston	✓	✓	1, 25
Quality Scheme for Ready Mixed Concrete, also t/a Construction Products Certification, Hampton	✓	-	1, 3, 4, 18, 22, 23, 25
SATRA Technology Centre Ltd, Kettering	✓	-	14, 17, 26, 34
SGS United Kingdom Ltd, Ellesmere Port	✓	-	1, 3-6, 8, 9, 11, 13-20, 22, 23, 25, 26, 28, 30-33, 36
Shirley Technologies Ltd, t/a BTTG, Leeds	✓	-	8, 13-17, 19, 23, 26, 33, 36
Steel Construction Certification Scheme Ltd, London SW1	✓	-	31
System Laboratories UK Ltd, Leighton Buzzard	✓	-	37
TÜV Rheinland UK Ltd, Shirley	✓	-	4, 31
TÜV SUD BABT, Fareham	✓	-	4, 31
TÜV UK Ltd, Croydon	✓	-	31
TWI Certification Ltd, Cambridge	✓	-	31
UK Certification Authority for Reinforcing Steels, Sevenoaks	✓	✓	22, 24, 31
UL International (UK) Ltd, Warrington	✓	✓	8, 9, 11, 13, 14, 21, 37, 38
United Registrar of Systems Products Ltd, Bournemouth	✓	-	31
University of Salford, Salford	✓	-	33
USW Commercial Services Ltd, Pontypridd	✓	-	18
Vinci Technology Centre UK Ltd, Leighton Buzzard	✓	-	8, 9
Warringtonfire Testing and Certification Ltd, t/a BM TRADA, High Wycombe	✓	✓	1, 6, 9, 13, 14, 17, 25, 26, 32, 36
Warringtonfire Testing and Certification Ltd, t/a Warringtonfire, Warrington	✓	✓	8, 9, 11, 13, 14, 16-19, 23, 26, 29, 32, 33, 35-38
	53	9	

* **Note**: all organisations ticked in this column are both Approved and Notified Bodies - except for the following, which are Approved Bodies only:-

- DBI Certification UK Ltd
- DNV Business Assurance Ltd
- TÜV SUD BABT

Key (**Note:** product categories covered by a designated standard only)

1. Aggregates
2. Building kits, units & prefabricated elements
3. Cements, building limes & other hydraulic binders
4. Chimneys, flues & specific products
5. Circulation fixtures: road equipment (includes all traffic flow products)
6. Construction adhesives
7. Construction products in contact with water intended for human consumption
8. Curtain walling/cladding/structural sealant glazing
9. Doors, windows, shutters, gates & related building hardware
10. Fire stopping, fire sealing & fire protective products; fire retardant products
11. Fixed firefighting equipment (fire alarm/detection, fixed firefighting, fire & smoke control &c)
12. Fixings (includes screws, nails, nuts, bolts & nail plates)
13. Flat glass, profiled glass & glass block products
14. Floorings
15. Geotextiles, geomembranes & related products
16. Gypsum products
17. Internal & external wall and ceiling finishes; internal partition kits
18. Masonry & related products; masonry units; mortars & ancillaries
19. Membranes, including liquid applied & kits (for water and/or water vapour control)
20. Pipes, tanks & ancillaries not in contact with water intended for human consumption
21. Power, control & communication cables
22. Precast normal/lightweight/autoclaved aerated concrete products
23. Products related to concrete, mortar & grout
24. Reinforcing & pre-stressing steel for concrete (& ancillaries); post-tensioning kits
25. Road construction products
26. Roof coverings, rooflights, roof windows & ancillary products; roof kits
27. Sanitary appliances
28. Sealants & joints
29. Space heating appliances
30. Structural bearings; pins for structural joints
31. Structural metallic products & ancillaries
32. Structural timber products/elements & ancillaries
33. Thermal insulation products/composite insulating kits/systems
34. Walkways, treads and steps
35. Waste water engineering products
36. Wood based panels & elements
37. Horizontal notification - reaction to fire
38. Horizontal notification - resistance to fire

Appendix 5: Summary of issues raised in evidence in the Grenfell Tower Public Inquiry in respect of the technical assessment, certification and marketing of construction products

Note: *the following summary is based on the authors' understanding of concerns raised in the evidence, and does not presume (and cannot pre-empt) any part of the analysis of the evidence by the Inquiry, nor any of its conclusions.*

1. Manufacturers

1.1 In seeking conformity assessment:

(i) Misleading the Approved Body by withholding relevant product information or providing inaccurate, incomplete or outdated information.
(ii) Failing to provide drawings of a test rig, or falsifying drawings so they do not accurately reflect what is tested.
(iii) Over-engineering a test rig, incorporating a concealed element that would not be there in normal use, in order to obtain a misleading test report.
(iv) Not declaring that a product of the same specification and manufacture has previously failed a test.
(v) Lacking systems to ensure that certification is reviewed in the event of a change; and/or failing to consider or acknowledge that a change in the specification or manufacture of a product should invalidate certificates previously issued for it.
(vi) Knowing or suspecting that the certification of a competitor's product was wrong, but not speaking out – for example in the hope of taking advantage of the same process to get their own product certificated

1.2 In marketing:

(1) Failing to ensure that sales staff were fully informed of, and trained in, the suitability of products for certain applications; and the validity/limitations of test data used to support claims of performance or suitability – or, in the extreme, withholding information from sales staff in the interests of generating sales.
(2) Having no process to ensure that outdated product information was not used in marketing.
(3) Misleading the market about the performance of a product or its suitability for a certain use through being inadequately informed about the product and the significance of test results, or failing to provide full information about either.
(4) Knowingly misleading the market by misrepresenting results of tests and their implications (for example by claiming that a product will meet a regulatory requirement by reinterpreting either the performance of the product or the regulation itself).
(5) Knowingly misleading the market by choosing extracts from test reports, or otherwise withholding relevant information, such as full details of the condition tested and its applicability to different situations.
(6) Claiming as a full test an "indicative" BS8414 test (which, not being representative of a real-world system, could not be used as the basis for a BR 135 classification).
(7) Implying that a product has passed a certain test when it hasn't – for example by saying it is "tested to BS…", without mentioning that it failed.

2. Conformity Assessment Bodies

2.1 In testing/test reports

(1) Failing to follow the requirement of the BS8414 testing standard – eg, in respect of:
   a. the addition of thermocouples in the test rig;
   b. testing a combination of materials that would never have been used in the cladding of high-rise buildings;
   c. exercising a discretion as to whether or not to terminate a test early (and not declaring that it was terminated, but just that it ended) ;

all of which are absent from the standard.

(2) Nonetheless using (with others then also using) an “indicative” BS8414 test that was terminated early and therefore did not meet the BR 135 criteria as the basis for subsequent desktop studies.

(3) Not witnessing or keeping a photographic record of the construction of a test rig, and not logging or checking delivery notes of the components delivered for the rig.

(4) Using equipment that was overdue for calibration at the date of the test, without informing the manufacturer.

(5) Consequently allowing themselves to be misled and to issue a test report that did not accurately reflect what was actually tested - for example by showing elements of the rig that were not there (but should have been), or omitting elements that were there (but should not have been), or mis-describing or inadequately describing the construction of the rig.

(6) Assisting or advising a manufacturer in connection with the conformity assessment process in breach of CPR or accreditation rules; writing reports in collaboration with the manufacturer (denied).

2.2 Certification/classification

(1) Issuing misleading certificates which were not backed by test results and which certified or implied a performance that was not achieved (eg that a material was of limited combustibility when it was combustible) or that it was suitable for a particular use (eg in complying with a regulatory requirement).

(2) Using unclear or ambiguous language in a certificate that may have allowed the market to misunderstand the performance of the product or its suitability for a particular use.

(3) Re-issuing a certificate without checking whether the specification or manufacture of the product had changed (which it had), relying instead on the manufacturer’s declaration that the only thing that had changed was the name.

(4) Issuing a classification report that was based on a BS8414 test done 10 years previously, without reference back to the author of the original test report, without looking at documents beyond the test report, without access to the full test file, without being able to verify the components used in the test, and without asking whether the product had changed over the decade since the test; and drafting it by reference to the 2002 British Standard relevant at the time of the 2005 test, rather than the 2015 revision current as at the date of the classification report.

(5) Lacking systems to ensure that certification was reviewed in the event of a change in the specification or manufacture of the product.

2.3 Declaration of Performance/marketing

(1) Knowing or suspecting that claims made by a manufacturer were inaccurate and/or misrepresented the conclusions of the conformity assessment process, but not speaking out – for example because of inadequate evidence, or not believing it to be their business.